The War at Sea: 1914-18

Proceedings of the King-Hall Naval History Conference 2013
The War at Sea: 1914–18

Proceedings of the King-Hall Naval History Conference 2013

Edited by
Andrew Forbes

Sea Power Centre – Australia
The Sea Power Centre - Australia was established to undertake activities to promote the study, discussion and awareness of maritime issues and strategy within the Royal Australian Navy, the Department of Defence and civil communities at large. Its mission is:

• to promote understanding of sea power and its application to the security of Australia’s national interests

• to manage the development of RAN doctrine and facilitate its incorporation into ADF doctrine

• to contribute to regional engagement

• to contribute to the development of maritime strategic concepts and strategic and operational level doctrine, and facilitate informed force structure decisions

• to preserve, develop and promote Australian naval history.

Comments on this volume or any enquiry related to the activities of the Centre should be directed to:

Director
Sea Power Centre - Australia
Department of Defence
PO Box 7942
Canberra BC ACT 2610
AUSTRALIA

Email: seapowercentre@defence.gov.au
Website: www.navy.gov.au/spc
#Contents

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>vii</td>
</tr>
<tr>
<td>Notes on Contributors</td>
<td>ix</td>
</tr>
<tr>
<td>Abbreviations</td>
<td>xiii</td>
</tr>
<tr>
<td>World War I: A Maritime War?</td>
<td>1</td>
</tr>
<tr>
<td><em>Norman Friedman</em></td>
<td></td>
</tr>
<tr>
<td>Alfred von Tirpitz: Architect of the Imperial German Battle Fleet</td>
<td>23</td>
</tr>
<tr>
<td><em>John Moses</em></td>
<td></td>
</tr>
<tr>
<td>Challenging the gatekeeper: the rationale for German naval operations</td>
<td>35</td>
</tr>
<tr>
<td>planning against the USA in Asia before 1914</td>
<td></td>
</tr>
<tr>
<td><em>Peter Overlack</em></td>
<td></td>
</tr>
<tr>
<td>Lessons Learnt? - How World War I shaped Japanese Naval Planning</td>
<td>51</td>
</tr>
<tr>
<td><em>Tim Gellel</em></td>
<td></td>
</tr>
<tr>
<td>St Andrew against the Kaiser: Russia’s Naval Strategy and Naval</td>
<td>73</td>
</tr>
<tr>
<td>Operations in the Baltic and Black Sea Theatres 1914-17</td>
<td></td>
</tr>
<tr>
<td><em>Alexey D Muraviev</em></td>
<td></td>
</tr>
<tr>
<td>The Dardanelles as a Joint Operation</td>
<td>95</td>
</tr>
<tr>
<td><em>Rhys Crawley</em></td>
<td></td>
</tr>
<tr>
<td>A survey of Ottoman Anti-Submarine Measures in the Dardanelles</td>
<td>103</td>
</tr>
<tr>
<td>1914-15</td>
<td></td>
</tr>
<tr>
<td><em>Harvey Broadbent</em></td>
<td></td>
</tr>
<tr>
<td>HMS <em>New Zealand</em> in World War I</td>
<td>117</td>
</tr>
<tr>
<td><em>Michael Wynd</em></td>
<td></td>
</tr>
<tr>
<td>Sailors Ashore: The Royal Australian Navy Serving on Land During</td>
<td>129</td>
</tr>
<tr>
<td>World War I</td>
<td></td>
</tr>
<tr>
<td><em>Greg Swinden</em></td>
<td></td>
</tr>
<tr>
<td>Communications at the Outbreak of World War I and their Evolution</td>
<td>151</td>
</tr>
<tr>
<td><em>Richard Arundel</em></td>
<td></td>
</tr>
<tr>
<td>The Other Room 40 - Royal Australian Navy and Signals Intelligence</td>
<td>161</td>
</tr>
<tr>
<td>1914-18</td>
<td></td>
</tr>
<tr>
<td><em>Jozef Straczek</em></td>
<td></td>
</tr>
</tbody>
</table>
Testing the Waters: Dogger Bank and Jutland through the Lens of a Command and Control Model

Alexander Kalloniatis

The Royal Naval Air Service

David Hobbs

First Flights: Aviation in the Royal Australian Navy 1914-18

Jack McCaffrie

The Media and the Royal Australian Navy 1914-18

Tim Coyle

The Royal Australian Naval College: Creswell’s Last Great Legacy

Peter Jones
In the view of many naval historians, the myth of the ‘Digger’ has distorted the Australian perception and understanding of its role in World War I (WWI). Over time, this land-centric focus in Australia’s collective memory has hidden from view activities in the other environmental domains of the sea and the air.

Given the protagonists in WWI, their reliance on seaborne trade, their geographical displacement and the various theatres around the world where hostilities occurred, the maritime aspects of the war were just as critical to its outcome. Similarly, WWI saw the emergence of new ideas about air power, as well as many instances of joint operations; a continuing focus of the Australian Defence Force today.

With the centenary of World War I currently underway, planning for the King-Hall Navy History Conference 2013 foresaw the need to examine the naval contribution to the war at sea; and from an Australian naval perspective, also events in the air and, perhaps surprising to some, on land.

As with all conferences and the publication of proceedings, no claim is made to a comprehensive coverage of events. Rather, these papers comprise a reconsideration of some well known operations; as well as new research on lesser-known operations and the introduction of new technology; as well as operational details of other navies.

For those readers interested in the Australian Navy’s role in WWI, a comprehensive reappraisal can be found in David Stevens, *In All Respects Ready: Australia’s Navy in World War I*, Oxford University Press, 2014.

Andrew Forbes
Deputy Director (Research)
Sea Power Centre - Australia
November 2015
Captain Richard Arundel, RAN (Rtd) joined the RAN in 1947 and specialised in signal communications in 1959. His postings included Fleet Communication’s Officer, OIC Signal’s School, Director of Naval Communications, Deputy Director Joint Service Communications, and Defence Attaché Paris and Berne.

Mr Harvey Broadbent is senior research fellow in Modern History at Macquarie University. He graduated with Honours in Near Eastern Studies (Manchester) in 1974, where his major study was Turkish language, history and culture; he speaks Turkish fluently. His first book, *The Boys Who Came Home: Recollections of Gallipoli*, was published in 1990 with a 2nd edition in 2000; his second book, *Gallipoli, The Fatal Shore*, was published in 2005.

Dr Tim Coyle was an international arms control adviser to the Australian government and an active naval reserve officer for over 20 years. In his naval role he worked in intelligence-related appointments, largely as an analyst. Tim holds a Bachelor of Arts degree (Hons) (ANU) and a PhD (UNSW) in 2007.

Dr Rhys Crawley is a postdoctoral fellow in the Strategic and Defence Studies Centre at the Australian National University. He holds an honours degree in history from the University of Wollongong, and a PhD (UNSW). His first book, *The Climax at Gallipoli* (Oklahoma University Press, 2014) examines the plans, preparations, limitations and potential of the August offensive at Gallipoli.

Dr Norman Friedman is an internationally known strategist and naval historian. His more than 35 books include an award-winning account of US Cold War strategy and histories of British and Commonwealth cruisers and destroyers.

Colonel Tim Gellel, CSC is a serving officer with the Australian Army and a Japanese linguist, with 15 years experience working on North Asian security issues. His four postings to Japan include service as Australia’s Defence Attaché and time as a student at the Japan Ground Self-Defense Force Command and General Staff College, and later the Japan National Institute for Defense Studies. He holds a Master of Arts degree (international relations), and his first book, on Australia’s military contribution to World War I, is being published through the Australian Army History Unit.

Commander David Hobbs, MBE, RN (Rtd) is a well known author and naval historian. He has written 11 books, the latest of which is *The British Pacific Fleet* and has co-authored nine more. He served in the Royal Navy from 1964 until 1997, retiring with the rank of Commander. He is qualified as both a fixed and rotary wing pilot and his log book contains 2300 hours with over 800 carrier landings, 150 of which were at night.
Vice Admiral Peter Jones, AO, DSC, RAN joined the RAN in 1974 and is a surface warfare specialist. His sea-going postings include command of the frigate HMAS Melbourne and Commander Australian Surface Task Group. During 2002-03, he commanded the RAN Task Group in the Arabian Gulf as well as the multinational Maritime Interception Force (MIF). He has written extensively on naval historical and strategic matters: he co-edited Reflections on the Royal Australian Navy (1991) and contributed to The Australian Centenary History of Defence: Volume 3: The Royal Australian Navy (2001) and Naval Power and Expeditionary Warfare: Peripheral Campaigns and New Theatres of Naval Warfare (2011).

Dr Alexander Kalloniatis is a Canberra-based senior analyst with Joint Operations Division of the Defence Science and Technology Organisation (DSTO). He completed his PhD at the University of Adelaide in 1992 in theoretical particle physics and undertook research in that field for the following 13 years in Germany and the United States. Since coming to DSTO in 2005 he has conducted research into command and control (C2), using modelling, simulation and organisational science to contribute both to the ADF’s new Headquarters Joint Operations Command and the international C2 research literature.

Commodore Jack McCaffrie, RAN (Rtd) is a principal fellow at the Australian National Centre for Ocean Resources and Security at Wollongong University, having retired from the RAN in 2003. His recent work includes co-authoring Navies of Southeast Asia: a Comparative Study and drafting the second edition of RAN doctrine Australian Maritime Operations.

Dr John A Moses, formerly Head of the Department of History, University of Queensland, is currently a Professorial Associate of Charles Sturt University affiliated with St Mark’s National Theological Centre, Canberra. His most recent publications include, Reluctant Revolutionary: Dietrich Bonhoeffer’s Collision with Prusso-German History (Berghahn Books, New York, 2009) and (with George Davis) Anzac Origins: Canon DJ Garland and Trans-Tasman Commemoration (Barton Books, Canberra, 2013).

Dr Alexey D Muraviev is a senior lecturer in the School of Social Sciences and Asian Languages at Curtin University. His research interests include problems of modern maritime power, contemporary defence and strategic policy, Russia’s strategic and defence policy, Russia is a Pacific power, transnational terrorism, and Australian national security.

Dr Joe Straczek joined the RAN as a junior recruit in January 1971 and was commissioned as a Supply Officer in February 1977. He transferred to the RANR in 1991 to take up the position of Senior Naval Historical Officer where he compiled *The Royal Australian Navy A-Z: Ships, Aircraft and Shore Establishments*. Joe is currently the Assistant Director Review and Support in the Directorate Classified Archival Records Review. Joe holds a Bachelor of Arts degree (Deakin) a Master of Defence Studies degree and a PhD (UNSW).

Commander Greg Swinden, RAN joined the RAN in 1985 as a Midshipman, and trained at the RAN College and Australian Defence Force Academy from which he graduated in 1987 with a Bachelor of Arts (UNSW) majoring in history and politics. As a Supply Officer he has extensive service ashore and operational experience at sea. He has written widely on a number of naval history topics and he is co-author of the books *First In - Last Out: The Navy at Gallipoli* and *The Forgotten Cruiser: HMAS Melbourne*.

Mr Michael Wynd is the military historian/researcher at the Royal New Zealand Navy Museum located at HMNZS Philomel in Auckland New Zealand, where he is also responsible for maintaining and developing the research library and archival collection.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAMC</td>
<td>Australian Army Medical Corps</td>
</tr>
<tr>
<td>ACNB</td>
<td>Australian Commonwealth Naval Board</td>
</tr>
<tr>
<td>AIF</td>
<td>Australian Imperial Force</td>
</tr>
<tr>
<td>ANMEF</td>
<td>Australian Naval and Military Expeditionary Force</td>
</tr>
<tr>
<td>ANZAC</td>
<td>Australia and New Zealand Army Corps</td>
</tr>
<tr>
<td>ASW</td>
<td>Anti-Submarine Warfare</td>
</tr>
<tr>
<td>BCF</td>
<td>Battle Cruiser Fleet</td>
</tr>
<tr>
<td>BEF</td>
<td>British Expeditionary Force</td>
</tr>
<tr>
<td>CFS</td>
<td>Central Flying School</td>
</tr>
<tr>
<td>CNF</td>
<td>Commonwealth Naval Force</td>
</tr>
<tr>
<td>C2</td>
<td>Command and Control</td>
</tr>
<tr>
<td>CPO</td>
<td>Chief Petty Officer</td>
</tr>
<tr>
<td>DCM</td>
<td>Distinguished Conduct Medal</td>
</tr>
<tr>
<td>DSO</td>
<td>Distinguished Service Order</td>
</tr>
<tr>
<td>5th BS</td>
<td>Fifth Battle Squadron</td>
</tr>
<tr>
<td>HMAS</td>
<td>His Majesty’s Australian Ship</td>
</tr>
<tr>
<td>HMS</td>
<td>His Majesty’s Ship</td>
</tr>
<tr>
<td>HSF</td>
<td>High Seas Fleet</td>
</tr>
<tr>
<td>IJA</td>
<td>Imperial Japanese Army</td>
</tr>
<tr>
<td>IJN</td>
<td>Imperial Japanese Navy</td>
</tr>
<tr>
<td>OODA</td>
<td>Observe, Orient, Decide, Act</td>
</tr>
<tr>
<td>ORBAT</td>
<td>Order of Battle</td>
</tr>
<tr>
<td>PMG</td>
<td>Postmaster-General</td>
</tr>
<tr>
<td>POW</td>
<td>Prisoner of War</td>
</tr>
<tr>
<td>RAN</td>
<td>Royal Australian Navy</td>
</tr>
<tr>
<td>RANBT</td>
<td>Royal Australian Navy Bridging Team</td>
</tr>
<tr>
<td>RANC</td>
<td>Royal Australian Navy College</td>
</tr>
<tr>
<td>RANR</td>
<td>Royal Australian Navy Reserve</td>
</tr>
<tr>
<td>RBF</td>
<td>Russian Baltic Fleet</td>
</tr>
<tr>
<td>RBSF</td>
<td>Russian Baltic Sea Fleet</td>
</tr>
<tr>
<td>RFC</td>
<td>Royal Flying Corps</td>
</tr>
<tr>
<td>RMS</td>
<td>Royal Mail Ship</td>
</tr>
<tr>
<td>RN</td>
<td>Royal Navy</td>
</tr>
<tr>
<td>RNAS</td>
<td>Royal Navy Air Service</td>
</tr>
<tr>
<td>RND</td>
<td>Royal Navy Division</td>
</tr>
<tr>
<td>SMS</td>
<td>His Majesty’s Ship</td>
</tr>
<tr>
<td>US</td>
<td>United States</td>
</tr>
<tr>
<td>USNS</td>
<td>United States Naval Ship</td>
</tr>
<tr>
<td>USS</td>
<td>United States Ship</td>
</tr>
<tr>
<td>V/S</td>
<td>Visual Signalling</td>
</tr>
<tr>
<td>W/T</td>
<td>Wireless Telegraphy</td>
</tr>
<tr>
<td>WWI</td>
<td>World War I</td>
</tr>
<tr>
<td>WWII</td>
<td>World War II</td>
</tr>
</tbody>
</table>
How do we see World War I (WWI), a century later? We can remember it for the great courage and horrific sacrifice of a generation of young men, memorialised in this building, the magnificent Australian War Memorial. We can also see it as a warning to future generations, including our own. Is 2013 like 1913? Are we headed the same way? Alternatively, we can see the war as a source of strategic and even tactical lessons which remain valid. To the extent that the last is worthwhile, we have to ask ourselves what sort of war it was, how it arose, and why it ended as it did. None of the three questions has an obvious answer. This paper suggests a different, hopefully illuminating, way to think about the war. This view may have enough current resonance to be of much more than historical interest.

I have taken the British (and Empire) point of view because, to me, the United States and her allies are in a similar enough position that what the British saw in 1914 may be relevant to what we see in 2014. That does not mean that we confront, or are likely to confront, an updated version of the Kaiser’s Germany. It does mean that we may be vulnerable to some of the mistakes the British made in 1914.

Why the Path to War Matters

How the war broke out still matters. Some of the proposed explanations for the war might be valid under current conditions. Others may explain why the British in particular were surprised that war broke out. How well do we understand how potential rivals and enemies make their decisions? Was the Europe of 1914 a tinderbox which would inevitably have exploded into war, or was the outbreak of war an unexpected event which can be traced to particular circumstances? Was the assassination of Archduke Franz Ferdinand really the spark which touched off the explosion, or was it a convenient excuse for a war which one of the parties involved wanted to fight? How close are we to a repeat performance?

We can certainly see parallels between 1913 and 2013. If WWI was about the rivalry between the superpower (the British Empire) and a rising challenger (Germany), then many may see the rivalry between the United States (and its allies) and China in a similar light. Far more than a collection of colonies, the British Empire, even in 1914, was a maritime commonwealth built on trade. It had a formal component, which is what you see on the map in the appropriate colour. However, it had an even more important informal component, of trading partners which largely shared British interests, but which were certainly not under British rule and could not be counted as allies. I live in one of them. A century after 1914, the international trading system is no longer centred
on the United Kingdom, but the United States heads a largely informal commonwealth based largely on international trade. As in 1914, not every major trading country is part of this commonwealth. In 1914 Germany was the rising trading country, and in 2014 China is certainly a leading exporter and importer. The Chinese navy has even made foreign trade (in both directions) a justification for investment in sea power.²

Is this 1914? If WWI erupted out of commercial rivalry, it may be. Commercial rivalry might also lead us to predict other wars, for example between China and Japan, or between Japan and Republic of Korea. After WWI, it was widely accepted that commercial rivalry could or would lead to war. For example, when US naval strategists imagined a war against the British and their Empire, they invoked commercial arguments. But no such war ever came. Perhaps this is not 1914 MkII. Perhaps we have to look at a different explanation both for the war and for the shape the war took.

We also have to be careful about how we interpret what we see as we look back. Historians often point out that history is experienced forward, and that looking back leads us to see things which those who made history did not consider particularly important. We look back and see war between Britain and Germany, and we can certainly find a good deal of anti-British sentiment in prewar Germany. We find less anti-German sentiment in prewar British society. Many of us might be surprised that the British offered the Germans an alliance before they offered one to the Japanese.³ Depending on who describes these events, the Germans found the offer embarrassing or they demanded far too much in return, but the point is that the offer was made not long before the British began taking Germany seriously as a possible enemy.

Britain as a Seaborne Power

Historians often seem to see maritime considerations as relatively minor, but for pre-1914 Britain they were central. For about 30 years before 1914, the Royal Navy made a successful public case that the country lived or died by access to the world via the sea; there was no other means of access. The industrial and financial revolutions which made Britain the wealthiest country in the world in 1914 both succeeded in part because Britain was able to import most of what it ate at prices below what would have been paid for home-grown food. As First Sea Lord, Admiral Sir John Fisher pointed out that the price of a naval disaster would be starvation, and that was the fear when German U-boats were most successful in 1917. The Royal Navy’s success with the public was reflected in heavy naval spending, beginning with the Naval Defence Act of 1889. During the run-up to war, the Liberal Party, which much preferred social to defence investment, continued to invest heavily in the Royal Navy.³

It followed that as the Germans began building a large fleet, the British - including the British public - saw that fleet as a direct threat. For all the Germans’ talk about how the fleet might deter the British from entering a European war, the existence of a large German fleet in effect guaranteed that the British would enter the war. That in turn guaranteed that the war would have an important maritime aspect. Maritime did not
mean simply naval; it did not mean that sinking the German fleet, for example, would necessarily win the war for the Allies. It meant instead that the Allies gained potential mobility around the edges of Europe and also that the Allies could draw strength from the rest of the world. Every Australian soldier who fought in France or in the Middle East got there by sea, courtesy of Allied - mainly British - sea control. Conversely, when the U-boats threatened to break maritime communications in 1917, they posed a mortal threat to the Allies.

It might be pointed out that in selling his fleet-building plans, Admiral von Tirpitz often claimed that the German battle fleet would deter the British from participating in a future European war. The German public certainly understood that the new fleet was directed against Britain. To what extent did Tirpitz’s very effective News Bureau (propaganda office) foment anti-British sentiment in Germany as a way of justifying an expensive fleet program? That is not to suggest that there would have been no anti-British sentiment in Germany without Tirpitz, but rather to suggest that Tirpitz and his associates were not particularly responsible when it came to selling a big navy. They certainly did well; in 1912 about half the German defence budget went to the navy - in a country which traditionally concentrated on its army.

The maritime character of the war seems to have been obvious to the defeated Germans in 1918. A US naval officer on the Allied Control Commission (which was superintending German disarmament) wrote home early in 1919 that the German navy was hated in Berlin, its former officers afraid to wear their uniforms. Pamphlets with titles like ‘Tirpitz, Gravedigger of Germany’ were being sold freely. The point of the pamphlets was that, had Admiral von Tirpitz not succeeded in building a large fleet, the British might well not have entered the war. The German army would have been larger, presumably large enough to win its land war in 1914. Instead, the Germans were forced into a protracted war in which they had to take worse and worse risks. After World War II (WWII) the German naval commander in the Mediterranean, Vice Admiral Eberhard Weichold, wrote that

\[\text{Germany lost World War I because she failed to break British seapower. All the successes of the German army on the Continent were negatived by the course of the war at sea. Every means of pressure used by the Allies, which led to the collapse of the Central Powers in 1918, was only a consequence of British seapower. Moreover the last decisive battle, which was fought on the Continent, was only made possible by the exercise of seapower.}^5\]

Naval rivalry surely led the British to enter the war as they did, although it can be argued that they would have supported France anyway to maintain the balance of power in Europe. The important point is that without a widely-agreed feeling that Germany offered a mortal threat, the British government would have found it difficult to convince the British population that the war was worth the sacrifices it entailed. Looking back, we see an emphasis on ‘brave little Belgium’ and on the cynical German statement that the treaty guaranteeing its integrity was only a ‘scrap of paper’. It seems likely that
when war broke out the British government hoped that it could be contained, and that the government accepted that the war was irreversible only when the Germans invaded Belgium despite their pleas. It might be added that Belgium was a sensitive area for the British because it was seen as a natural base for invasion - by sea.

We now know that the rise of the German navy had nothing to do with any German decision to trigger a world war. There was no German naval war plan. We know as much from the remarkable diary kept by Admiral von Tirpitz as he stayed in the Kaiser’s headquarters in 1914-15. There is a parallel set of letters by Admiral von Pohl, the head of the naval staff. Neither had any idea of what to do with the fleet, and both were unhappily aware that both the Kaiser and the Chancellor thought the best use of the fleet was as a postwar bargaining chip (the Kaiser wanted the fleet kept intact for that role).6

The British apparently could not imagine that a rational country like Germany would spend heavily on a fleet, which would obviously threaten them, without thinking through its wartime employment. It appears that no one in the Royal Navy or, for that matter, in the British government could imagine irrationality on this scale. In retrospect it seems that Tirpitz was fixated on building a big battleship navy, perhaps because as a young officer he had decided that he did not want to serve in a third-rate fleet. The Kaiser was enthusiastic about battleships - at one point before the war he described a type he wanted (but did not get) as his ‘love object’.7 Tirpitz argued that his fleet was in effect a public works project which would create a class of well-paid workers who would vote against the Social Democrats (but did not do so in 1912).

Naval rivalry did not ignite the war in the first place. Some in Britain, such as Admiral Fisher, talked about a pre-emptive attack on the German fleet, but there is no evidence that this was a serious idea. The war was ignited in some other way. It was certainly not ignited by the German naval leadership, which considered its fleet inferior to the Royal Navy (and whose grandiose building plan would not be complete for at least six years). Something, moreover, converted a crisis in the Balkans into a continent-wide war. Just what that something was has been controversial for many years.

Explanations

The answers to who started the war and why seem to depend on external factors. Fifty years ago Barbara Tuchman published The Guns of August, which posited a kind of mechanical process in which interlocking alliances automatically expanded the Balkan crisis into a world war. Not coincidentally, Ms Tuchman was writing at the time the Kennedy administration was making the possibility of accidental nuclear war a central issue (the administration claimed that by inserting locks into nuclear weapons it was saving the world from the unstable military). The previous Eisenhower administration had dismissed the idea of any such war on the ground that ‘common sense will prevail’, which seems to have been reasonable.
Another explanation is that various European rivalries could not be settled. War was inevitable, given the rising level of European armaments, and any crisis might well touch it off. This explanation also avoided blaming any single government for the war. It suggested that a better means of international mediation, such as the United Nations, might be the only way to head off a future war. A cynic would point out that such a non-explanation was attractive or even essential at times when German cooperation was wanted or needed, such as during the difficult economic times of the late 1920s and early 1930s (when Germany’s was the greatest economy in Europe) and in postwar Europe, when Germany would have supplied so much of the NATO army, and when German industry was so vital to the rest of Western Europe. The problem with this explanation is that Europe had been heavily armed for decades, but many crises had been defused. Why should the crisis of 1914 have been any different? What critical event had occurred in the few years immediately prior to 1914?

**Extroverted civil war**

To this author, the most interesting explanation for the war lies in events in Germany between 1912 and 1914. The German political system placed Kaiser and army at its centre, to the extent that Germany was often described as an army (not army and navy) with a country attached. The army was considered the bulwark of the regime. The elected Reichstag had limited powers, but it did have to pass the annual budget. During the 19th century Bismarck dissolved the Prussian parliament when it failed to pass a budget, set one by decree, then fought a successful war against Denmark, held a new election which gave him a more favourable parliament, and resubmitted his budget, this time successfully. From 1890 on, the Social Democrats, which the German regime or establishment regarded as revolutionaries (we would consider this a gross exaggeration) won majorities in elections to the Reichstag. However, the seats were sufficiently gerrymandered that it was not until 1912 that the Social Democrats could form a centre-left majority with some other parties. That was the beginning of the regime’s nightmare.8

Worse soon came. In 1913 a junior German army officer in Alsace beat up a civilian who mocked him.9 A civil court absolved the civilian and convicted the officer, but a military court, which had precedence, absolved the officer. The Reichstag passed a vote of no confidence in the government. However, Chancellor Bethmann-Hollweg refused to resign, because he owed his loyalty not to the Reichstag but to the Kaiser. For its part, the centre-left coalition backed down. It passed that year’s budget. Part of the reason may have been a real fear of an army coup against the Reichstag (for which there was a formal term, a *staatsreich*). In the wake of the crisis, a member of the General Staff told a Foreign Ministry official that his task for the coming year was to foment a world war in which Germany would appear to be the wronged party. If that seems bizarre, remember that in 1870 Count Otto von Bismarck fomented a war with France. He manoeuvred the French Emperor into declaring war on him, but history sees Bismarck as the aggressor. Some German historians have seen a parallel. In each case the war was not primarily an
The War at Sea: 1914-18

attempt to gain foreign territory, but rather as a means of solving an internal German political problem. In 1870 victory was intended to unify Germany on Bismarck’s terms. In 1914, it has been argued, the intent was to gain a victory which would reverse the electoral power of the German left. In each case, there were certainly war aims, because the internal political objective could not be achieved unless it was clear that the war had been worth while.

It seems clear that the Kaiser had no idea of what was being done. He understood that there was a crisis in the Balkans and that he had treaty obligations to help Austria against Russia, so in 1914 he kept asking why his army was concentrating against France. He never received a particularly satisfactory answer, and the question shows that he had far less power than might have been supposed (he also asked why his navy was not concentrating in the Baltic).

If this analysis is correct, WWI broke out because a crisis (of which there were many) was exploited by the German General Staff. The General Staff was in effect the German government, particularly once the Kaiser was sidelined in 1908. War was intended to solve an internal German political problem. The war was in effect an extroverted civil war. That is a much rarer problem than economic rivalry, because war is attractive mainly to governments which have enjoyed great military success.

Moreover, this analysis implies that WWI was anything but inevitable. The tensions involved were not sufficient to ignite a war, at least in 1914. Contrary to the general view of a sunny pre-1914 world, most of the major governments of Europe were deeply worried about internal political instability. The worries of Austria-Hungary are well known, but it seems clear that few outside Germany appreciated the perception of instability at the top of that country (because the country was so obviously prosperous and stable). Without the perception of instability, who could imagine so desperate a step as to ignite a war for wholly domestic purposes? With that perception, the timing and character of the war are obvious.

Many historians in the United States and the United Kingdom have claimed German (and particularly General Staff) responsibility for the war, but they generally have not explained why the Germans should have been so eager to fight when they did. Why 1914? The only explanation given is that Russia was modernising, and that by 1916 the balance of power might tip against Germany. It is difficult to find examples of wars ignited by fear of a future balance of power problem. The internal German events of 1912 and 1913 seem far more relevant to the General Staff’s behaviour in 1914.

The gap in explanation would seem to correspond to the surprise felt by the British (who were culturally the same as the historians who missed the internal explanation). In 1914 the British government, like those of Continental states, saw its army as a bulwark of stability (particularly in Ireland). It was very concerned with the possibility of an army mutiny connected with the institution of Home Rule in Ireland. However, the British army generally did not see itself as the guardian of British institutions beyond the authority of Parliament. It was the servant, not the master. No one in the United
Kingdom seems to have understood that in Germany the opposite was true. The German General Staff saw itself as the guardian of the state. The Kaiser himself, who thought he was the state, had been sidelined in 1908 after giving a notorious interview to a British newspaper. In 1914 the General Staff ruled Germany, a situation which became more obvious during the war.

Does all of that matter now? It may. This year, the centenary of 1914, is also the 25th anniversary of ‘Tiananmen Square’, when the People’s Liberation Army put down pro-democracy demonstrations in Beijing and also in other Chinese cities. The Army showed that it was the guardian of the state, and that it could be relied upon to deal with the Chinese public - just as, before 1914, the German army was considered the guardian of the regime in opposition to the public. To what extent do we understand what that means? Much depends on the balance between the Chinese Communist Party and its army. In 1914 the German General Staff was an uncontrolled force, to an extent unappreciated outside Germany. It is not accidental that the historians who have concentrated on the internal tensions and the role of the General Staff are German. There are unpleasant indications from Chinese dissidents that we have grossly under-judged the tensions in that country between governed and governors, and the effort which goes into maintaining the current state of order (and cultural amnesia about the events of 1989).

**Britain and economic deterrence**

It also seems clear that, despite the German naval shipbuilding program, the British did not consider a major European war at all likely. In 1914 Britain was more like a modern country than any other in Europe, in that civilians and finance (the City of London) decided policy. During the period immediately before the war, Norman Angell’s book *The Great Illusion* was a runaway bestseller, widely read in government circles. Angell argued that a modern war was unaffordable; it would destroy European societies and economies. This is very much the modern argument that conquest is unprofitable and war far too destructive to contemplate. That is true if an enemy’s objective is economic; he will lose far more in fighting than he will gain later on. It is not at all true if the objective is political - which includes gains at home from the perceived glory of conquest abroad.

In effect the British thought they were living under the sort of mutual assured destruction that was so important in the nuclear age. Maurice Hankey, who was at the centre of events as secretary of the Committee on Imperial Defence, wrote later that the Liberals (in power between 1906 and 1916) thought that if only the Germans could be held off, over time the firebrands would lose power and war might be averted altogether (he did not subscribe to the extroverted civil war theory described above). In this context, British war planning was limited, and the British prime minister and his military advisors did not undertake the sort of scenario exercises which are now familiar. Nor did they ask much about the consequences of different national strategies. The British government
did embrace a strategy of economic attack against Germany, including blocking German merchant ships and denying British shipping to Germany, but in retrospect this seems to have been attractive in much the way sanctions are now attractive: they are a non-military (bloodless) way of applying pressure in an emergency.

**British Strategy in 1914**

More broadly, when it contemplated war in 1914 the British Cabinet seems to have envisaged a holding action in France while the ‘Russian steamroller’ attacked from the East. They were aware, if only vaguely, that the vital areas of Germany were all in the east. A battle in France could be decisive for France, but success there was unlikely to force Germany out of the war. At the outset it seemed that Britain’s main role in war would be to secure access to the world’s resources by maintaining sea control, and at the same time to deny those resources to the enemy. There was talk of attacking the German coast, but only as a means of neutralising the German fleet. The British Expeditionary Force was reluctantly despatched to France (several days later than expected) after debate showed that no one could think of a better role for those troops.

In 1914, then, British policy makers considered Russia the fulcrum of the Allied effort. That had maritime implications, because the connection between Britain and France and Russia was by sea. The most important access routes, through the Baltic and the Dardanelles, were both blocked. That did not matter much if the war was short. If it lasted, the Russians needed support. About half of their prewar income came from grain sales through the Dardanelles. In addition to cash, the Russians needed munitions and they needed the machinery to make munitions. In theory, Russia was accessible both via the White Sea (Murmansk and Archangel) and via the Pacific Ocean (Vladivostok), but neither offered much capacity.

When it framed war policy, the British War Council was in a very different position from any of the other European governments. Despite prewar scares (often used to justify a larger standing army), Britain was very nearly impossible to invade. Sea power offered Britain alone of the European powers the ability to choose among options. Moreover, even if a British expeditionary army came to grief, Britain would not be defeated. The British could therefore entertain high-risk high-payoff operations around the periphery of the Central Powers.

Four such operations were on offer in the fall of 1914. One was an attack on Austria-Hungary in the Adriatic. A second was Admiral Fisher’s Baltic attack. A third was an attack to open the Dardanelles. A fourth was an attack on the German coast, to seize one of the Frisian Islands (to support bottling up the German fleet). The Adriatic operation was dropped because Italy had not yet decided to enter the war on the Allied side. The seizure of a German island seems to have been rejected as too dangerous.
Both the Baltic and the Dardanelles operations made sense as ways to support or exploit Russian manpower. Admiral Fisher’s argument had long been that the East German Baltic coast was an area of particular sensitivity. A fleet operating in the Baltic could transport Russian troops around the seaward flank of the German army facing them. Fisher believed that these troops could end the war by taking Berlin, 90 miles from the coast. The operation was deemed too risky in 1914, but during 1915 Fisher began building the specialised shipping which might have been used - in effect, an expendable coastal fleet.

**Gallipoli**

Opening the Dardanelles was more attractive, not least because it could solve a British economic problem. In the fall of 1914, the Australian wheat harvest had failed, and the American harvest was not expected to be very good. That left the Russian harvest, which was very good, but which was blocked by hostile Turkish control of the Dardanelles. The British government feared the consequences of a wheat (bread) shortage, to the extent that Prime Minister Asquith remarked that it would be easier to storm the Dardanelles than to raise the price of bread. Through early 1915 the British had real hopes that the Greeks would attack the Dardanelles overland in combination with a British naval attack. This project died because the Russians demanded sole control of the Dardanelles, and refused to countenance any Greek involvement. The Russians had an effective veto because of their central place in British strategy.

This logic makes the outcome at Gallipoli the failure of a potentially decisive operation rather than a folly, as is often imagined, to show off sea power in a very secondary place. The troops who died there were fighting an important battle which might have greatly shortened the war.

The British War Council approved the Baltic attack as a sequel to a successful attack on the Dardanelles, but the Dardanelles operation stalled. It ate up much of the shipping conceived for the Baltic. Moreover, by the time that it had definitely stalled, the War Council was no longer thinking in maritime terms. The British commitment in France had grown so large that all concerned had forgotten the facts previously understood that no effort in France was likely to be decisive.

How we see Gallipoli depends very much on how we understand WWI. A sea power perspective emphasises ultimate ends, in this case the defeat of Germany. Whatever territory the Germans seized during the war, they would have to disgorge once they lost. A more land-oriented perspective might emphasise the need to defend particular territory, in this case France. That would certainly be the French perspective. Did it also have to be the British perspective? Strategy is about ends and means, and they have to be evaluated objectively. How bad a catastrophe would the fall of France have been - to the British? How much British (and Empire) blood was the survival of France worth? Probably because the British government had not taken the prospect of war in Europe very seriously before the war, these questions were never asked, let alone answered.
The British Blank Cheque

The outbreak of the war is often blamed on a ‘blank cheque’ given by the Germans to the Austrians, which ensured that the Austrians felt free to make unacceptable demands on Serbia and thus ignite a war. However, the course of the war may have been shaped more by the implicit blank cheque offered by the British to the French: no matter what happened, the British would keep feeding troops into the Western Front.

Mass British army involvement on the Western Front came about in a curious way. When war broke out, Secretary of War Richard Haldane, who was openly pro-German before the war, was replaced by Lord Kitchener, the hero of the Boer War and the Sudan. Kitchener undertook to raise a mass army. When he was asked in the Cabinet what he would do with it (and why he brooked no limit on its size), he replied that he would explain only if all of the ministers divorced their wives and broke up with their girlfriends, because otherwise they would talk at home and the secret plans would leak. Remarkably, he was not immediately fired. He was the only one in the Cabinet with any military prestige at all (although it is difficult to see the Boer War as a great demonstration of military prowess).

Once the new divisions existed, some of them reinforced the small British force in France, even though the commander of that force, Sir John French, told the Cabinet that nothing done in France could be decisive. Others ended up at Gallipoli. The key event was probably the German spring 1915 offensive. When the French, who were desperate, called for help, the British had to respond because they had fresh troops. They were fed into the Battle of Loos. It proved disastrous, because the troops were only half-trained and their officers had too little experience of large-scale warfare. However, once a large British army was in France, it could not easily be withdrawn. No one seems to have reflected on the decision to maintain a large army in France.

Maritime War

Even then maritime considerations played a vital part. The Germans were painfully aware that no matter how well they did on land, they could not knock the British out of the war. To win, they had to sever the British connection with the overseas world, including the Empire and the United States (at the time the largest industrial economy in the world).

Both the British and the Germans engaged in economic warfare, each trying to block the other’s imports. The British did so by blocking access to the North Sea and seizing cargoes destined for Germany. The Germans did so initially by classic trade warfare and then by unrestricted submarine warfare, beginning in 1915. The difference was profound. Seizing cargoes was infuriating to the shippers but bloodless. Unrestricted submarine warfare meant sinking all merchant ships on sight, including neutral ships and liners carrying neutral civilians. The British understood from the outset that the ultimate prize would be US cooperation in the war. They had to temper their own attack on Germany to avoid tipping the US government and population into hostility.
The civilian German government, as represented by Chancellor Bethmann-Hollweg, took a similar view, but its influence was limited. After the German army failed to win decisively in 1914, the navy offered what it claimed would be a decisive threat to the British, in the form of unrestricted U-boat warfare. That resulted in the sinking of the liner RMS *Lusitania*, with 115 Americans on board, an attack that nearly tipped the United States into war on the Allied side. Eventually the Germans wound down the U-boat campaign to avoid American hostility. It had been ineffective because there were too few U-boats.

The German military came to see the United States as an important contributor to British military staying power. That was a maritime judgement: the US contribution was available because the British controlled the sea linking the United States to Britain. Through 1916, the Germans mounted sabotage operations against munitions plants in the United States. The most notable was the destruction of Black Tom, a huge powder plant in New York Harbor. The US government was soon aware of German official involvement, but President Woodrow Wilson did not want to be drawn into the war.

**British Options, 1916-17**

The outcome of the Battle of the Somme in 1916 seems to have convinced those in the British government that the war could not be won on the Western Front, no matter how many men were fed into it. It was time to think objectively about strategy, in the way that the British should have thought in 1914. That Britain was a maritime power determined what that sort of pessimism meant. Since Britain could not be invaded, the worst outcome would be a negotiated peace which threw the British off the Continent. That would not be the end of hostility. It would be a pause during which both sides prepared for a new war a few years later. Through 1916 and 1917 British strategists began to deploy forces with a view to preparing for this second phase.

They soon concluded that the decisive theatre would be the East. This conclusion explains the large investments the British made in places like the Middle East and the Caucasus. Many British and Empire troops were deployed there when the war ended. It is difficult to explain the scale of the effort unless the pessimism about the Western Front is taken into account.

These deployments were part of an option available thanks to Allied sea power. In effect they complemented a long-term French deployment to Salonika. These efforts have seemed distinctly secondary because the great battles of 1918 were all fought in France. However, appearances can be deceptive.

**German Options, 1916-17**

By the end of 1916 all of the powers had been exhausted by the land war. President Wilson thought he could broker a peace. However, the Germans were unwilling to withdraw to their prewar boundaries, which was the only settlement which the Allies might have
accepted. The German General Staff became interested in unconventional ways to break the deadlock. One was to insert Russian revolutionaries, including Lenin, into Russia, ultimately provoking the Russian Revolution and taking Russia out of the war. The other was a new attack on British overseas supply - resumption of unrestricted U-boat warfare.

This time the argument that such warfare might bring the United States into the war failed. Once it was accepted that the United States would probably enter the war, the Germans sought other ways to neutralise it. That included the Zimmermann Telegram, which offered Mexico the south-western states in return for joining Germany in the war. The telegram helped propel the United States into the war. Probably its key impact was not so much on the American public as on President Wilson, who was enraged to discover that it had been sent to Mexico via US diplomatic channels provided to the Germans as part of Wilson’s peace initiative.

Once the United States entered the war, the Germans could, in theory, conclude that they had to win before US troops tipped the balance on the Western Front - if indeed that was the decisive theatre. In any case, US entry into the war gave the Allies good reason to imagine that if they lasted through 1918 the balance of power would tip to them, probably decisively. Among many other consequences of US involvement, serious British financial problems were suddenly solved by the US Treasury.

US resources were used to justify the convoy system which slowed merchant ship losses to an acceptable level (convoy was being discussed actively, and used locally, before the United States entered the war). At least as importantly, the United States offered enough new merchant shipping, much of it seized from the Germans in US ports, to make up for much of the U-boats’ depredations. The United States began a massive merchant shipbuilding program which would have more than replaced losses had the war continued. All of this was aside from the creation of a large US army. Whether or not this army proved entirely effective, it was available only because the Allies, particularly the British, maintained command of the Atlantic Ocean and the North Sea.

End-Game

Given the success of the convoy system, the German U-boat offensive proved relatively ineffective after its first few months in 1917. The German navy refused to admit defeat - indeed the use of convoys saved merchant ships but did not sink many U-boats. However, by early 1918 it must have seemed that Germany could no longer defeat Britain at sea. As in the past, no real decision was possible without such a victory. Ludendorff, who by this time was in effect dictator of Germany, was limited to a renewed campaign on land. Using troops released by the collapse of Russia, and new storm tactics, he began a new ‘Michael’ offensive in April 1918. In theory the offensive was intended to win the war on land before a large US army could appear in France. However, it is difficult to see how any offensive mounted at that time could have been decisive. At best it could have split the French and British armies from each other and reached the English Channel. It might have destroyed much of the British and French armies, albeit at a high cost in German casualties.
From the outset the war had been maritime. Winning on land was never enough. This reality is obscured by the fact that after the Michael offensive failed in August 1918, the Allies went on the offensive in France. The German army was forced to retreat to a series of defensive positions. The Germans sought a ceasefire, which soon became, in effect, a surrender. How decisive were the Allied victories on the Western Front? Many accounts of WWI comment that the Allied commanders were surprised when the Germans asked for a ceasefire. They thought they were doing well, but they had not seen the sort of enemy collapse which would have indicated the end of the war. Most imagined a possibly decisive campaign to be fought in 1919, and many feared that their countries could not keep fighting that long.¹⁸

Our understanding of what happened depends to a considerable extent on whether the Germans thought the Allies were about to break the German army. The army had always been the bulwark of the regime - to some extent it was the regime. As long as the army survived, so did the regime. The call for an Armistice might be read as a desperate attempt to keep the army intact enough to keep the German regime alive. The Kaiser had to abdicate, but it can be argued that important features of the Kaiser’s Germany survived. Without the army, the revolution which broke out in November 1918 might have brought much more profound change.¹⁹

In October 1918 the Germans were still talking about withdrawing to more defensible lines, and the German navy was still claiming that U-boat warfare using more U-boats could force the Allies to accept more attractive terms. Despite the success of convoys in stemming losses, the Allies were unable to destroy U-boats on any great scale. The Germans may well have imagined that if the U-boat fleet grew sufficiently, groups of U-boats could overwhelm convoys (it is not clear exactly what counter-convoy tactics were being discussed at the end of the war).²⁰

There is at least some indication that the fatal blows were the surrenders of Austria-Hungary and Turkey, which opened southern Germany to attack.²¹ The effect of Allied success in the West was that the Germans needed virtually every man they had to hold the shortened lines they were trying to secure. They had no surplus force to deal with an attack into Bavaria. Moreover, eastern Germany had always been a more sensitive area than the Western Front. The wars against Austria-Hungary and Turkey had always depended on maritime support in the form of supplies. This observation, that vulnerability to the south became decisive, is the basis of French claims that in the end the decisive theatre was Salonika.

**Did It Have To Be This Way?**

Maritime power offers a country choices which a land power cannot enjoy. Centuries ago, Francis Bacon wrote that ‘he who controls the sea can take as much or as little of the war as he likes’. The British took as much as they possibly could; they built the largest army in their history, with casualties to match. Did they have real alternatives? Did their WW1 strategy bear any resemblance to that which they used in other European wars?
It happens that it did not. The most recent comparable war had been the lengthy struggle against Napoleon. The British limited their army exposure on the Continent, building and financing coalition after coalition. Initially they were not at all successful, and they were compelled to accept a compromise peace at Amiens in 1801. They used the respite to improve their own position, correctly expecting war to break out within a few years. When it did, they again tried to create coalitions, but the most important thing they did was to guarantee their sea control by winning at Trafalgar in 1805. Once Napoleon could no longer effectively threaten invasion, the British could try risky high-gain operations against the shores of Europe. One such operation, at Walcheren, failed altogether, and the army involved was withdrawn. The army inserted into Portugal and then Spain, under Wellington, did much better.

Neither of these operations could possibly have defeated Napoleon by itself. The British understood that it would take a coalition to do that. Napoleon helped. Like the Germans of WWI, he felt that he had to defeat England, and he took riskier and riskier steps to do so. One of his ideas was a self-blockade of the European coast intended to strangle British trade with the Continent. When the Russians failed to join in, he invaded Russia. That was the key mis-step the British had been waiting for. Given the damage the Russian invasion did to Napoleon’s army, the British army on the Iberian Peninsula became a much more serious threat to Napoleon. Ultimately it invaded France. This time the coalition the British raised did succeed. Napoleon fell.

The war was expensive, and the British suffered serious casualties, but they emerged from the Napoleonic War stronger than before, to become the superpower of the 19th century. Dim memories of this success probably explain British faith in the ‘Russian steamroller’ in 1914. The memory which did not survive was that the British had been ejected from the Continent without losing the war.

Another possible analogy is WWII. In 1939 Britain was led by men who had either experienced the hell of WWI or were close to those who had. Although no one wrote about it, all of them knew what the blank cheque issued in 1914-15 had meant. This time there was no mass army in France, only a limited expeditionary force. Dunkirk was not a happy experience, but Churchill understood that British power was generated by a massive global empire and by an informal empire which more than matched it. As long as the Germans could not win the Battle of the Atlantic, he could keep fighting. In this context the key prewar event was the completion of the radar system which seemed to guarantee that Britain could not be destroyed from the air - that it was still an island which could stand up to the Germans.

By itself, Britain could not defeat Germany. However, no one imagined that the British would have to fight by themselves. They would have coalition partners. As in WWI, the Germans would have to knock Britain out of the war by indirect means, which in turn would turn neutrals into British allies. The coalition destroyed Hitler, but without British resistance in 1940 there would have been no coalition and quite possibly no victory. This time the British suffered many fewer casualties, because British leaders understood many of the lessons of WWI.
World War II was far more obviously a maritime war than WWI. Perhaps the difference is actually that in WWI the British failed to exploit maritime opportunities. That meant failing to use the mobility inherent in their sea power.

After World War II came the Cold War. Throughout it, strategists in the West tried to come up with an effective way of fighting the war which might come if it turned hot. In an abstract sense, a hot war arising out of the Cold War would not have been so very different from the two world wars and the Napoleonic Wars. The enemy would have surged through Europe. France was no longer the front line; that was the Central Front in Germany. Enormous effort went into designing defences.

Unfortunately, it was always clear that if the Soviets simply decided one morning to attack, they could mass far more troops and tanks and artillery than NATO. NATO could match the Russians if it had weeks or months to mobilise, but that would not necessarily be the case. NATO bought tactical nuclear weapons as an equaliser, but the Soviets had them, too - and in greater quantities. In the late 1970s the consensus was that NATO would lose a non-nuclear war, and that it would also lose a tactical nuclear war. The only difference would be that the latter would be far more devastating. In the best case, a war in which both sides gradually built up their forces, the war might turn into a stalemate on the inter-German border something like WWI, and no less horrible.

The US Navy offered a maritime alternative. It never became settled policy, but it was advanced actively through the last decade of the Cold War, and it was certainly favoured by some important US leaders. Looking back, the navy noticed that the way a sea power fought a land power was to combine seaborne mobility with land forces provided largely by the coalition partner. The two could be synergistic. For example, a viable seaborne threat to the seaward flanks of an advancing Soviet army might well slow it down. Units would have to be detached to deal with possible attacks, and seaborne mobility would multiply the number of such places. The US Marine Corps began to talk about landing on the Danish coast or even near Leningrad (St Petersburg).

The navy became interested in the effect Chinese forces had on Soviet deployments. The Soviets maintained a large army on the Chinese border at considerable cost, and it would be difficult to redeploy west. The US fleet in the Pacific could support any Chinese attack on the Soviets, so as long as it maintained its threatening position the Soviets could not redeploy ships and aircraft from the Far East. To some extent the Chinese would parallel the role of the Russian steamroller in British thinking in 1914. Whether or not they ever agreed to support NATO in a war against the Soviets, the Soviets could not take their neutrality for granted - particularly if it looked as though a powerful US naval force was positioned specifically to support a Chinese attack.

Just as the Baltic project of 1914 was risky, so were the flanking operations proposed as part of the navy’s maritime strategy. In 1914 the Baltic project was initially deferred as long as the German High Seas Fleet remained; it was reinstated in 1915 because the British had built an expendable fleet for the Baltic, including the monitors. The US equivalent of such considerations was to seek an early decisive battle in the Norwegian
sea, which would destroy so much of the Soviet fleet (mainly bombers and submarines) that losses in the Baltic would be acceptable. In this case the trigger for the battle would have been a US threat mounted against the bastion areas in which Soviet strategic submarines, the only naval assets they really valued, lurked.

No one knew whether the ‘Maritime Strategy’ of the 1980s would have worked in practice. The US Navy admitted as much, but it pointed out that no other NATO strategy had much chance of success. The Soviets might well occupy Western Europe. However, that would not be enough to end the war. As in the Napoleonic Wars and WWI, the enemy would not win by reaching the Channel. In the Soviet case, a protracted peripheral war might be quite dangerous. National minorities might well see their opportunities, and the Chinese might find a war-damaged Soviet Union an irresistible target (they remembered enormous swathes of Siberia seized by the Russians under ‘unequal’ treaties).

Critics of the Maritime Strategy sometimes called it the ‘McCawber Strategy’, after a Dickens character who expected that ‘something will turn up’. They forgot how well just that strategy had worked against Hitler and Napoleon - and how poorly the alternative had worked in WWI.

Could it Have Been Different?

WWI carries object lessons which remain relevant a century later. The most chilling is that deterrence is complex and fallible. How well any deterrent works depends on who it is intended to deter, and from what action. We are not very good at understanding foreign societies. In 1914 British decision-makers assumed that Germany was analogous to Britain, with similar people in authority and similar power vested in the voters. Most importantly, they thought that the threat of financial and consequent social disaster would constrain the German government. No one in London seems to have had the slightest understanding of the forces active in Germany, particularly of the sense of political crisis generated in 1912-13. British accounts of the war make that ignorance very obvious.

Nuclear deterrence worked during the Cold War because the threat was so broad and therefore included so many different nightmares. At least some of those nightmares were likely to affect the Soviets. Nothing less immediately devastating is likely to have the same impact. Even nuclear deterrence can fail. No one ever knew whether Iranian President Ahmadinejad believed that a nuclear attack on Iran would bring about a new Islamic era, but his mystical comments considerably undermined US and other nuclear threats.

The prewar guesses as to how bad the war would be turned out to be reasonably accurate. WWI hollowed out all of the European powers. It destroyed entire societies, as well as the global economic system which had made the world so rich. In this sense the Great Depression was the final consequence of the war, as the global system finally sank. It has been fully revived only in the last few decades.
Neither before nor during most of the war did the British have a mechanism for objectively evaluating national strategy. Prime Minister Asquith could and did listen to descriptions of navy and army war plans, but he had no staff which could have provided useful comments or comparisons. He was betting on his own judgement, but he had no military or strategic experience. To a considerable extent Asquith’s judgement seems to have been based on personal comparisons of the advocates of different operations. There does not seem to have been any discussion of the war as a whole, or of national strategy. Once war began, he was badly overburdened. The British did not create a civilian war staff, the War Cabinet, until 1918. By that time there were no longer many real strategic choices.

Conclusions
Would we do any better than those who fought WWI? That breaks into two questions. The first is whether there was some way to stave off the war altogether. The second is whether, once war was inescapable, there was some better way for the British to have fought.

Deterrence would have required some threat more fearsome, from a German point of view, than the triumph of the Social Democrats. It was, of course, possible to defuse the particular crisis which was used to ignite the war. It may be that there was only a limited window available for war in 1914. In that case, solving the Sarajevo crisis would have moved the problem up to 1915, and then another crisis might also have been solved. To the extent that the problem was the internal structure of Germany, one might speculate that within a few years the Reichstag might have gained enough power to preclude war. It is also possible that German popular sentiment, which is often blamed for the war, would have led to a later war. We do not know. But we do know that no one in power in the United Kingdom had the faintest idea of what was happening.

A better-tailored British national strategy might have changed the character of the war. Gallipoli was a kind of minimum approach to supporting Russia as the key to victory. An attack in the Baltic might have had greater impact, as it might have brought masses of Russian troops into the most sensitive parts of Germany in such a way that the Germans might have pressed for an immediate ceasefire. In that case, better British strategic thinking might have saved millions of lives.

This possibility raises an interesting question. To a considerable extent, the deterrent preventing the British from operating in the Baltic was the German High Seas Fleet. The British could not afford to allow their fleet to be trapped in the Baltic, leaving the Germans free to operate as they wished in the North Sea (perhaps invading Britain). One solution for the British was to build a second expendable fleet, which is a way to read Admiral Fisher’s various orders for exotic warships in 1914-15. A better solution would have been to destroy the High Seas Fleet altogether in battle. If the Baltic really was a potentially decisive theatre of war, then it can be argued that the High Seas Fleet commander could have lost the war in an afternoon, just as it has often been said that Grand Fleet commander Admiral Jellicoe could have.
It seems clear that German army awareness of this possibility was limited, although in 1916 a unified Baltic coast defence organisation was formed. There is every evidence that the German army high command never appreciated the extent to which maritime operations could affect its own survival. For its part, the German navy never made the case that it was the essential protector of the most sensitive part of Germany, either during the war or afterwards, when it badly needed some justification for Tirpitz’s huge inroads into German resources. The best-known postwar German critique of wartime strategy concentrated on the failure to attack the blockade which stopped commerce into the North Sea. The other main critique attacked Tirpitz for building battleships rather than U-boats.

Failing such dramatic results, it seems that because the major powers used their full resources to fight, it was unlikely that the war could have ended very quickly. Bloodshed would have been horrific no matter how the war was fought. However, it is not at all obvious that British Empire troops had to die in such numbers. Once the British army was heavily engaged in France, British decision-makers seem to have found it impossible to keep in mind that they were in a coalition, not a merged Anglo-French state.

British and Empire bloodshed in individual battles can be laid to inexperience and to poor generalship. The overall disaster was due to poor national strategy, arrived at without much thought. It is sometimes said that the British troops were lions led by donkeys. The worst of the donkeys seem to have been in Whitehall, not France.

The central British failure occurred well before 1914: no one in Whitehall understood Germany, not in the sense that they failed to appreciate German grievances and ambitions, but in the much more vital sense that they did not understand how German government and society operated and interacted. They mirror-imaged to an outrageous extent. British intelligence failed to bridge this gap. Lacking an understanding of what they faced, the British never took war planning or analysis very seriously. That is why Prime Minister Asquith had no idea of his options when war came.

Asquith was not well served by his service chiefs. Admiral Fisher, who seems to have been the only one who understood how sensitive the German Baltic coast was, proved inarticulate and even mystical when he pressed his point. The British army pressed for a supporting role in France, but it does not seem to have made much impact on Asquith; the British Expeditionary Force was sent reluctantly. It is not at all clear that the famous prewar meeting (1911) decided British strategy; it seems to have had much more to do with balancing factions within the ruling Liberal Party. Most importantly, Asquith was never presented with the implications of the war plans advanced by his services, including the economic attack the Admiralty presented as a war-winning weapon. Nor, incidentally, did anyone in the Cabinet have a clear idea of the economic consequences of the war, with dire results.
Other governments did no better, and in some cases far worse. The British were unique in that the civilian government was normally very much the master of its service arms, and also in having built a sort of inter-service organisation prewar in the form of the Committee on Imperial Defence. It took a horrible war to learn how important that could have been. We have the machinery. Would we use it more intelligently?

Endnotes

1 The existence of an informal empire and the influence of commercial and financial factors on British policy are both obviously important and extremely difficult to specify. As an example of the informal empire, during the interwar period British investments in China were considerable and highly valued. Poor Japanese treatment of British civilians in 1931-32 seems to have been the first concrete indication leading the British government to conclude that the peacetime era was ending. For the informal empire concept, see PJ Cain and AG Hopkins, *British Imperialism 1688 - 2000*, (2nd edn), Longman, London, 2002. The influence of the City is even more difficult to trace, because it had no particular spokesman. One might speculate that the wide influence wielded by Angell's book reflects the influence of finance on British thinking. In 1914 the City of London was by far the leading financial centre in the world, the key factor in global trade.

2 One of the main texts supporting this idea is Mahan's. That should impress those who see in Mahan little more than glorification of battle fleets for their own sake. Mahan was actually concerned mainly with the way in which command of the sea could support vital wartime trade while starving an enemy.

3 This was in 1898, in what appeared at the time to be a colonial context. It is not entirely clear at which point the British decided that Germany was a likely enemy. Germany was one, but hardly the only, factor in the reorganisation of British overseas fleets decided in the fall of 1904. War planning against Germany apparently began in the context of the 1905-06 Moroccan crises, when British diplomacy averted a war between Germany and France. VR Berghahn, *Germany and the Approach of War in 1914*, (2nd edn), St Martin's Press, New York, 1993 states that the crisis was fomented by the Germans specifically to cause a war which the French would initiate. The war seems to have been intended to reverse sentiment in the Reichstag. The German war against insurgents in southwest Africa in 1907 did that, but only temporarily. Berghahn describes the tensions within the German political system in considerable detail, including the role of the army. He and others have pointed out that the German army deliberately limited its size before 1912 in order to limit its officer corps to the aristocracy, which was considered safe, and also to avoid having to accept large numbers of politically unsuitable workers. Social standards for officers had to be relaxed as the army expanded considerably after 1912.

4 For the campaign for a larger navy, see Norman Friedman, *British Cruisers of the Victorian Era*, Seaforth and Naval Institute Press, 2012. As a Captain, Admiral Sir John Fisher was the link between the navy and the editor (WT Stead) who wrote the crucial articles putting the navy's case in 1884-85.

5 From 'The War At Sea in the Mediterranean', released by the US Navy on 26 February 1947. This comment does not appear in the May 1951 British publication of Weichold's account of Mediterranean operations 1939 - May 1943 held by the Sea Power Centre - Australia.

6 English versions of these materials were printed in the Royal Navy's Monthly Intelligence Report (copies in PRO and in Admiralty Library) beginning in 1920. Initially the Tirpitz and von Pohl material was given separately, but later it was integrated into what amounts to a discussion between the two, who clearly disliked each other.
This was a battleship-armoured cruiser. Although it may seem that this was exactly what the Germans built as battle cruisers, Tirpitz did not see the designs that way, and he stoutly resisted the Kaiser for fear of making his battle fleet even more expensive.

This political background is given in detail by Berghahn.

This ‘Zabern Affair’ is described in detail by Jack Beatty, *The Lost History of 1914: How the Great War Was Not Inevitable*, Bloomsbury, London, 2012. Beatty argues that war would have been averted had the army simply deposed the Reichstag in a coup. Such coups were so frequently discussed that there was a word in German for the result, a government ruled directly by the Kaiser (or his associates): *staatsreich*. Berghahn gives repeated references to proposals for such an official coup in the years before 1914.

See, for example, David Fromkin, *Europe’s Last Summer: Who Started the Great War in 1914?*, Knopf, New York, 2004. Fromkin includes a smoking gun, a senior General Staff officer who told a Foreign Ministry official that his task for 1914 would be foment a world war in which Germany would appear to be the victim (so that the Reichstag would support the war). Fromkin does not discuss the internal German political factors described here. See also the classic description of the run-up to war from a German point of view, Fritz Fischer, *War of Illusions: German Policies from 1911 to 1914*, Norton, New York, 1975. Fischer quotes a German insider to the effect that the Kaiser was deliberately sent on a cruise with the fleet as the crisis deepened, to keep that ‘crazy pacifist’ out of Berlin. It appears that Chancellor Bethmann-Hollweg was also deceived; when he asked whether there was a risk of a major war, he was told that the crisis would of course be limited to the Balkans.

It might be argued that the Japanese decided to attack the United States in 1941 for fear of ultimate strangulation by the oil embargo, but that was nothing like going to war on the basis of a calculation that next year might be worse than this year.

My two great sources for British thinking in 1913-15 are Prime Minister Asquith’s letters to his mistress (he was remarkably open about secret matters) and Hankey’s memoir, *The Supreme Command 1914-1918*, Allen and Unwin, London, 1961 which is clearly based on his diary. Asquith’s letters, which extend into 1915, were published as Michael and Eleanor Brock (eds), *H.H. Asquith Letters to Venetia Stanley*, Oxford University Press, 1982. Hankey wrote his book in 1937, but it was suppressed until 1961. It is largely a plea for the sort of civilian general staff described in this paper. My published source for British ideas of economic attack against Germany is Nicholas A Lambert, *Planning Armageddon: British Economic Warfare and the First World War*, Harvard University Press, 2012. Hankey also mentions economic attack, but Lambert fleshes out the idea. He also shows how widely Angell’s work (and similar ideas) was understood in prewar London. However, the idea that the British imagined they were in a situation of mutual assured destruction is my own. Lambert points out that the dominant position of the City of London offered the British the opportunity to cripple Germany by suddenly withdrawing commercial credit. However, the British banks which would have had to cooperate in such an attack refused to do so. There was a wartime attempt to gain informal agreement along such lines, but at the end of the war the committee involved burned its papers. A cynic would suggest that cooperation had been less than complete. The view that Asquith saw economic attack as a relatively painless way to apply pressure is my own, based on Western governments’ willingness to apply sanctions as a bloodless form of attack.
Lambert makes the economic connection with Russia and the Dardanelles particularly clear. He does not follow the wheat story through, but it appears that the US crop was better than expected. Hankey describes the futile attempt to promote an overland attack by the Greeks. It was frustrated by the Russians. Sean McMeekin, *The Russian Origins of the First World War*, Harvard University Press, Cambridge, 2011 explains why the Russians wanted sole control of the Dardanelles. It was not only that so much of their foreign income was involved, but that the income from wheat was their hope of creating a prosperous peasant class which would balance off the revolutionaries in the cities.

There is reason to believe that Admiral Fisher approved the Dardanelles operation as a quid pro quo for the Baltic, but that he became furious when the ships he had conceived for the Baltic went there, making the Baltic operation impossible. Fisher’s rather obscurely-phrased argument in favour of the Baltic is to be found in the biography by his friend Vice Admiral Reginald Bacon, *The Life of Lord Fisher of Kilverstone*, Hodder & Stoughton, London, 1919. Asquith’s letters suggest strongly that no one involved was articulate enough to explain how proposed operations would further a larger strategy.

This remarkable statement is to be found in the Asquith letters. One of Kitchener’s biographers argued that he alone of the Cabinet understood that the war would be protracted; hence that Britain needed a large army. The connection is not clear except from an army point of view. It has also been suggested that Kitchener envisaged a British army which would be able to break a stalemate between France and Germany at some later date, but which had to be thrown into action too early due to German offensives.


Convoys had been operating from the Netherlands since some time in 1916, and they began operating to and from France (to protect the coal trade) early in 1917. In *Fighting the Great War at Sea: Strategy, Tactics, and Technology*, Seaforth and Naval Institute Press, 2014, I explain Admiralty reluctance to institute convoy, and point out that most US officers disliked the idea. President Wilson famously favoured convoy over what he saw as random hunting, but the British had good reason to imagine that they could use signals intelligence to locate U-boats as a basis of hunting. Moreover, convoys never became the killing ground for U-boats that they were in World War II, because technology was not good enough.

For example, the German high command rejected calls for a ‘people’s war’ of resistance to Allied armies as they invaded Germany, because that would destroy the German political system the army dominated. It was better to surrender (preferably with politicians making the arrangements) so that the army and its politics could survive.

Discussions of continuing U-boat production and operation can be found in the standard history of U-boat development, Eberhard Rössler, *The U-Boat: The Evolution and Technical History of German Submarines*, Arms and Armour, London, 1981. Stevenson also describes disagreements in which the German naval high command argued that a satisfactory outcome was still possible, as long as the U-boat arm kept fighting.

This is Hankey’s argument, that when the ‘props’ represented by Germany’s southern allies were knocked away, the Germans had to give up. He quotes Ludendorff’s memoirs to support this conclusion.
I remember just this phrase from a public debate at the US Naval War College in which I argued in favour of the US Navy’s maritime strategy, about 1986.

This was particularly evident during the famous 1911 meeting of the Committee on Imperial Defence, at which First Sea Lord Admiral Sir AK Wilson offered his war plan and Director of Military Operations General Sir Henry Wilson described the plan to deploy the British Expeditionary Force to France. Accounts emphasise Wilson’s extremely poor delivery, with his claims that his plan was secret even from the rest of the navy (a claim which had done his predecessor Admiral Fisher no great harm). At the meeting, Secretary of State for War Haldane attacked the Admiralty for the lack of a staff which might have given it plans as good as the army’s. Winston Churchill was made First Lord with a mandate to create a war staff. One of his first acts was to fire Wilson. Churchill had been Home Secretary, responsible for internal security in Britain. There are several problems with this account. First, Prime Minister Asquith knew that unless he accepted Haldane’s claims, Haldane would quit, an unacceptable consequence because Haldane headed an important faction of his party. The merits of the argument did not really matter. As for Churchill, Asquith considered him unsuited to the Home Secretary post because of some of his recent actions against strikers and anarchists. If Asquith imagined that there was a deterrent, it was far safer to move Churchill to the Admiralty. This rationale is hinted at by Roy Jenkins, *Churchill*, Pan, London, 2001. Jenkins was a very experienced politician who looked at such events from Asquith’s point of view. Unfortunately we do not have Asquith’s account, since his correspondence with Venetia Stanley had not yet begun.
What had to happen, what could have been done to avoid the unspeakable catastrophes that were looming? The answer is staggering: absolutely nothing! If Germany in 1914 had not opted to go to war there would have been no war because Austria-Hungary without German support would definitely not have ventured to declare war; and the three Entente powers, neither in three years (nor even still later) would ever have opened hostilities. The German Empire would have continued to make progress with her exemplary economic, scientific and cultural ascent and would have soon become in the normal course of events, without war, the preeminent Power in Europe. Of course, the dissolution of the Habsburg Empire, that ‘prison of nations’ could not be stopped, but was that a reason, out of unconditional loyalty [Niebelungentreue] to leap into the dark? Was there no ‘diplomatic revolution’ thinkable that would have guaranteed the Reich the necessary security and guarantees which Chancellor Bethmann-Hollweg in his 1914 September Program wanted to win through forceful annexations, promoting revolutions and economic rapine? An arrangement with the British Empire could ultimately have been achieved. As late as the spring of 1912 the British war minister, Lord Haldane, had formally offered the Germans an agreement. The price? Berlin was requested to slow down the strategically and completely senseless construction of battleships, that is not cease construction, but just slow it down and give assurances that it would not attack either France or Russia! Bethmann-Hollweg, the responsible leader of German policy and the first adviser to the crown wanted to accept. But in this life-threatening situation he was ignored: the Kaiser was listening to Tirpitz and brusquely rejected the proposal.\footnote{Back in 1899 the Social Democratic member of the Reichstag and revisionist ideologue, Eduard Bernstein (1850-1932), observed that the Powers were engaged in a highly dangerous ‘cold war’ - using that precise term - because of the armaments race which could unleash a ‘hot’ war at any time.\footnote{This was, of course, mainly a naval armaments race which was to become infinitely more intense as the first decade of the new century advanced. The Reichstag had just brought in the First Navy Law [Flottengesetz] in 1898, of which historian Jonathan Steinberg observed: The passage in April of that year was without question the most important event in the domestic policy of imperial Germany between the fall of Bismarck and the beginning of the twentieth century. In it all the problems of German society came to the surface, and through it, they were projected on the world scene. It marked a shift in the international forces by which Europe had been kept in check since the Congress of Vienna.}}
The successful passage of this bill was largely due to the efforts of one man, Admiral Alfred von Tirpitz (ennobled in 1900) who had a vision of being able to elevate Germany to superpower status by increasing dramatically the number of capital ships. And for a considerable time he enjoyed a stellar career ascending to Secretary of State for the imperial Germany Navy, and by 1911, to grand admiral. Tirpitz had spent time at Plymouth as a young Prussian naval cadet in training and he was also intimately acquainted with the works of Alfred Thayer Mahan especially his *The Influence of Sea Power upon History, 1660-1783*.\(^4\)

Lord Acton had once famously observed that great men were almost certainly bad men because of the corrupting influence of power, but whether Tirpitz was corrupted by the power he came to wield is problematic.\(^3\) What he strove for in his naval policy included personal validation but it was above all to make Germany great at the expense of what the Germans then called *England*, and it may not be forgotten, as well, to break the constitutional power of the Reichstag and to marginalise the influence of socialism and liberalism to dam the rising tide of democracy and to cement the prerogatives of the ruling classes, above all of the Kaiser.\(^6\) He was a true believer in Germany’s calling by Providence to become the leading world power. Along with the majority of his class, the highly educated upper German bourgeoisie [*Bildungsbürgertum*], Tirpitz was convinced that this was Germany’s destiny as it was also of the very rich propertied classes [*Besitzbürgertum*], especially big business. The ruling elite from the Kaiser down knew full well that such a development would alienate Britain, a kindred nation, that would assess challenges to her naval supremacy with deep suspicion, but that was a risk that Tirpitz and his supporters were willing to confront. *England* had passed her peak and was in a state of rapid decline. The hatred of Britain was becoming by the 1890s a fixed idea in the psyche of most middle class and aristocratic Germans but the consequences were obviously not so apparent at the time. German opinion makers were confident that they could sustain the pressure which they did with increasing virulence right up to 1914 and after. The naval race was the sharpest manifestation of the German ‘sense of mission’ [*Sendungsbewusstsein*], the aim of which was to eclipse Britain as the then leading world power. The new battle fleet was to be Germany’s instrument of *Weltpolitik* the central objective of which was to establish naval supremacy over *England*. What Tirpitz eventually brought about was, of course, disastrous for his country since his prized fleet on 21 June 1919 ended up scuttled in the murky waters of Scapa Flow. In short, his ambitious calculations had been fatally flawed.

This paper will note the ideological origins of the *Tirpitz Plan*, outline the so-called risk theory and seek to explain its implementation in practice.\(^7\)

Alfred Tirpitz was no mere technician of sea power but rather a highly sophisticated ideologue of *Weltpolitik*, the German version of imperialism. He inherited as a matter of course the prevailing Prusso-German comprehension of power politics [*Reallpolitik*] that had characterised the new Empire’s political culture from Bismarck’s time onwards. As the notably ‘anti-establishment’ German historian, Eckhart Kehr (1902-33) succinctly
summed that up, nation and politics constituted a dualism in Germany, meaning that the *nation* was not co-terminus with the people but was the military class that perceived itself as distinct from the *Volk* who were left to play politics by forming various parties, liberal, socialist, conservative and Roman Catholic. These conducted their tiresome business in the Reichstag, but because of the constitution imposed on Germany in 1871 by Otto von Bismarck, the legislature had no control over the government which was in theory nominated by the Kaiser and remained responsible to him and not the legislature as in western parliamentary states. It needs to be understood that Bismarck consciously devised this so that, essentially, the Germany he united under Prussia was a military monarchy, indeed a compromise on the one hand between 18th century absolutism when the king by divine right determined both domestic and foreign policy, and a modern parliamentary state on the other where the executive was controlled by the legislature. In fact the Reichstag, whose members were elected on an adult male franchise, was a sop to the national movement for German unity, and effectively only the fig leaf on the nakedness of what otherwise was an absolutist Empire dominated by the Chancellor who was appointed by and responsible personally only to the Kaiser.

This political settlement was endorsed by the Protestant middle class and aristocracy as meeting the nation’s essential needs both domestically and internationally. Only the burgeoning labour movement, Social Democrats and trade unions, the Catholic Centre Party and a handful of more radical liberals and pacifists opposed it, but they had no means, short of revolution, of modernising the constitution. There was, however, one element in the constitution which Bismarck felt constrained to include and that was the right of the Reichstag to vote supply [*das Budgetrecht*]. And the largest section of that at the federal level was the national defence budget. Bismarck had cleverly provided that the army budget would only be voted on every seven years [*Septennat*] revised in 1893 to every five years [*Quinquenat*] and this effectively removed the army from parliamentary control. All the Chancellor was required to do was to negotiate with the conservative parties in the Reichstag to vote the expenditure when it came up. And this is what made the Bismarckian-Wilhelmine constitution essentially militaristic. In short, the government ruled the Empire according to the requirements of the army, and that is the true definition of militarism, namely the prioritisation of the perceived needs of the defence forces over all others. And further, just to underline the difference between imperial Germany and western powers at the time, there existed in the Reich a separate constitution for the army [*Wehrverfassung*]. The essential feature of this arrangement was that the Empire was divided into military districts under the command of a general officer who was constitutionally controlled by an independent military cabinet that exercised the so-called *Kommandogewalt* meaning that the military stood under no other authority than that of the Kaiser, the all highest himself. Only the administrative structure was subsumed under the authority of the regular bureaucracy. But what is crucial was the fact that the Kaiser in times of national emergency could decree that the *Kommandogewalt* of the army should assume responsibility for all normal government policies and actions. In short, the civilian bureaucracy would have to submit to the ultimate authority of the army.
The point is that the political culture of Bismarckian-Wilhelmine Germany was very different from the West, a fact both celebrated and resented by some leading German literary figures. The other significant difference was in political philosophy generally which defined the nature of the state. In the West the state is a means of ensuring law and order, an arrangement that allows civil society to re-produce itself, to allow commerce to flourish under the rule of law and where the political rights and obligations of an individual can be negotiated and ultimately guaranteed, and where the armed forces are under the ultimate control of legislature. In Prussia-Germany, on the other hand, the state existed, over and above society. This meant in practice that individual rights and obligations were always subordinate to the powers-that-be who were, in the Lutheran scheme of things, ordained by God. It cannot be stressed sufficiently that the state was a spiritual entity, as the philosopher Hegel had taught, namely the hand of God on earth, under a monarch who was ‘God’s anointed one’ and as such it was anything but a mere cooperative association for the facilitating of commerce. Above all it was a warrior state.

This had to be, because if the state is not secure, both domestically and internationally, there can be no guarantee of peaceful progress. The role of the monarch, then, is to ensure security, and in a world of enemies, the role of the armed forces is paramount. It follows that in the hierarchy of professions that of the bearing of arms is paramount. That was the essence of Prussianism.

By the time of Bismarck’s dismissal in 1890, Prussia-Germany had already become a considerable colonial power. At first the Iron Chancellor had not been at all enthusiastic about the acquisitions of great tracts of Africa and numerous Pacific islands, so he allocated the management of these territories called protectorates to chartered companies. Nevertheless, during Bismarck’s term of office the greater part of German overseas territories in Africa and the Pacific had been acquired. This raised the need for the establishment of a navy for the protection of commerce in the first instance, and the only German state with any naval tradition, however modest, was Prussia because it had a coastline on the North Sea and Baltic where in time new harbour installations, a deeper and wider Kiel Canal and the building of an entire town, namely Wilhelmshafen, were expressly undertaken for the expanded naval requirements. All this resulted largely from the efforts of one man, namely Alfred von Tirpitz, Secretary of State for the Navy (1896-1916) whose legacy for Germany, like that of Bismarck has been nothing short of catastrophic. What we need to grasp is that both men contributed mightily to the downfall of the empire which, first, the one had founded in central Europe by virtue of the superiority of the army, and the other who had had sought to develop it into a great world power by means of a new battle fleet that was capable of inflicting crippling damage on the Royal Navy which was by far the world’s leading maritime force. It is this mentality which drove Tirpitz and above all the Kaiser himself, which concerns us here.

The financing of a massive fleet of battleships posed an entirely new political challenge for the naval dreamers, chiefly the Kaiser and Tirpitz. To realise the dream required them to descend into the highly suspect political arena. Since the Reichstag had to be
persuaded to vote the navy budget there was always going to be a wrangle with the political parties. As Jonathan Steinberg observed, financing the navy was to become the biggest political challenge for those Germans who wished to preserve the Bismarckian constitution and the social structure as it was, while at the same time realising the ambitions of the Wilhelmine ruling elite to make Germany a superpower. Alfred von Tirpitz drove this long term agenda. And to achieve this he had to find the political/legal means of eliminating the Reichstag from exerting budgetary control over projected building programs. That was his secret objective, and he proceeded with due caution to accomplish his long term objectives for the Fatherland, all the time hoping not to arouse too much the suspicions of the hated and despised British.\(^\text{14}\)

There has been a vast amount of research on why Tirpitz persisted with his goal of ultimately out-building the Royal Navy. From my own studies in Germany, reinforced by frequent later research sojourns, including conferences, I have formed a particular view of the problem, taking care to consult both the works of the key German, British, Australian and American scholars and interviewing them personally.

It is a truism that all policy emerges from the mind of decision-makers whose concepts, in turn, have been shaped by their education, their ideological formation or commitment, including their class affiliation. In Tirpitz’ case he was especially influenced by the ideas of Professor Heinrich von Treitschke whose lectures on contemporary history at the Friedrich Wilhelm University, now the Humboldt University, Berlin, seethed with virulent anti-British content. As a young officer in Berlin, Tirpitz made a point of attending Treitschke’s lectures and frequently taking coffee with the famous professor afterwards and making notes of their conversations about world politics.\(^\text{15}\) Indeed Treitschke’s influence on Tirpitz as well as on generations of German students may not be discounted. As von Ranke’s successor in Berlin from 1874 to 1896 he was the most eloquent and persuasive of the so-called Prussian school of historians who dominated at German universities at the time, arguably the most brilliant voluntary propaganda organisation of modern times.

His successful piloting of the First Navy Law through the Reichstag in 1898 was for Tirpitz only the first stage in his long term objective. He had managed by virtue of skilled propaganda sufficiently to mobilise both public and party opinion in favour of the measure, but it only guaranteed him 19 first class ships. The Second Navy Law, passed at a time of intense anti-British hostility in 1900, managed to finance the building of 38 first class ships. But this was still far short of Tirpitz’ goal.\(^\text{16}\) He had already presented to the Kaiser in September 1899 whose advocacy for the enlarged fleet was of course, assured, a wish list of 45 battleships and heavy cruisers. The Reichstag was not so easy to persuade. It was therefore necessary to intensify the Anglo-German antagonism which, of course, was not difficult in that period since Britain was practically diplomatically isolated having strained relations with virtually all the Powers including the United States.\(^\text{17}\) Tirpitz wanted to accelerate the building tempo by three times, but he had to wait until 1907 until he could venture to advocate such a law as well as the replacement
every 20 years of capital ships. As Paul Kennedy has pointed out, its effect would have meant a fleet of 60 battleships, a cause for considerable alarm across the channel.\textsuperscript{18}

Let us pause for a moment to consider the essence of the \textit{Tirpitz Plan} and its implications. We have already appreciated that it was driven by a pathological hatred of Britain. This can be documented by early 1905 at the latest concerning which Volker Berghahn relates that in replying to a letter from Admiral Georg Alexander von Müller who asked what should be done if Germany’s naval armaments policy plus a diplomatic crisis precipitated a war with England, Tirpitz replied

\begin{quote}
I feel we ought to be clear about this question, even before it is asked: for, our present policies will be defined by the way in which we propose to answer it. And the answer must be: [We shall wage] ‘a world war which will lead our armies into India and Egypt’. As Berghahn comments, ‘The militarists in the army could not have put it more candidly’\textsuperscript{19}.
\end{quote}

Second, Tirpitz predicated the entire project on building in stages over a generation, sufficient battleships to be able to inflict permanent damage on the Royal Navy and that this objective would be confined to the North Sea. A cruiser squadron designed to protect German colonies and commerce in the Pacific and in Africa was not a serious option because of the lack of German bases overseas; that in Tsingtao in northern China was an expendable outpost in the event of war. Third, Tirpitz was wedded to the concept that the possession of such a battle fleet would make Germany ‘alliance worthy’ \textit{[bündnisfähig]} that is to become so strong that other lesser powers would prefer an alliance with Germany rather than to stay out in the diplomatic cold.\textsuperscript{20} Tirpitz was able to persuade both the regime and the Reichstag that this was a rational objective for the rising great power to follow. Of course, the Social Democrats and some more pacifically inclined liberals disagreed. The Roman Catholic Centre Party, once implacably opposed to both colonial and naval expansion had come around to the Tirpitz position making it easier for the Navy Laws to pass through the legislature.\textsuperscript{21} Fourth, Tirpitz hated being dependent upon the Reichstag for his budget and secretly intrigued to achieve a situation similar to that enjoyed by the army with regard to the financing of its establishment. He wanted what is called an \textit{Aeternat} from the Reichstag meaning a commitment of funds in advance for that would guarantee the a permanent building tempo of three great capital ships each year. This would have not only ensured regularity in construction but it would also have deprived the Reichstag of any further power to influence naval growth. Had the \textit{Aeternat} been achieved, the German fleet would reproduce and modernise itself for ever, and the Reichstag would foot the bill.\textsuperscript{22} In the event, however, the \textit{Aeternat} never materialised because as Martin Kitchen observed, ‘The financial problems of the Reich dashed his [Tirpitz] \textit{Aeternat} scheme and intensified the struggle between opposition partners in the Reichstag and the proponents of a vast naval programme.’\textsuperscript{23} Fifth and finally, all this was based on the so-called risk theory according to which Germany had to expand her fleet to be strong enough both to defend her coasts and in addition to be able to threaten the encompassing superiority of the biggest existing fleet.\textsuperscript{24}
As Volker Berghahn has demonstrated, Tirpitz was out to steer the Fatherland into a new era both with regard to domestic and foreign policy. As did many other conservative leaders in Germany, in common with the entire militarist oligarchy, Tirpitz did not believe that parliamentary government suited the character of the German people. And so, in time, there should be radical constitutional changes. Indeed, the parliamentary system hindered the vigorous prosecution of Weltpolitik. Meanwhile Tirpitz persisted with his aim to out build the Royal Navy. His strategy was eventually to assemble a force so powerful that it could break out of the confines of the North Sea and as the Germans say, bring England to her knees \textit{[in die Knie zwingen]}, thus clearing the way for the prosecution of an unhindered Weltpolitik.\textsuperscript{25}

Paul Kennedy has for many years reflected on the Tirpitz Plan and has pointed out its fatal flaws. Strikingly, Tirpitz may have been a brilliant propagandist and politician but he proved to be remarkably inflexible, basing his strategy on the assumption that the British would not be able to make adjustments in planning to meet new circumstances. First, Tirpitz wanted to exploit the fact that Britain was overstretched to maintain seven naval bases around the world and would never be able to concentrate sufficient ships in the North Sea to meet a threat from a fleet of battleships based on the German coast. But Britain overcame this problem through timely diplomacy such as with her naval treaty with Japan in 1902 whereby capital ships could be withdrawn from the Far East and Indian Ocean to home waters. As well, the Entente Cordiale with the French also enabled rapid withdrawal of units from the Mediterranean into Gibraltar and ultimately into home waters.

Second, Tirpitz underestimated the determination of the British not to be out built in battleships. He became committed to a naval race he could not win, certainly not in the limited time which history allotted to him. The only hope of success was to outbuild the British rival as quickly as possible. But this aim was frustrated because the July crisis of 1914 which led to World War I ultimately torpedoed the Tirpitz Plan rendering it a pointless waste of men, money and materiel. Had the war not come in 1914 but, say, in 1920 there may have been a chance of realising the great objective given the increased building tempo allowed by the Navy Law of 1912. But even with a fleet of at least 60 battleships the grand objective was still uncertain of achievement. As indicated, the only solution would have been significantly to outbuild the Royal Navy, and as long as the naval race endured the Germans would be hindered by the ever increasing protests from the naval and colonial critics, especially in the Social Democratic Party, by 1912 the largest in the Reichstag, and the British determination to keep building sufficient battleships to maintain the two-power standard. In any case, by 1920 Russia’s massive military upgrade would have denied Tirpitz his opportunity to best England because the Russian army aided and abetted by French pressure in the West would have been able to march through the exposed plains of East Prussia.

It is perhaps not so widely known but the leader of the Social Democratic Party, August Bebel had prior to his death in 1913 on visits to Switzerland, ostensibly to see his daughter who lived in Zurich, regularly informed the British Consul there of German
warlike intentions towards England, as if confirmation were needed. The point is that the existence of such a large workers’ party affiliated with the Second International was a thorn in the side of all German conservatives, proving as the German historian Dieter Groh memorably phased it, that the Reich was only negatively integrated, meaning that the massive working class constituted a permanent opposition which was only deterred from revolution by the fact that they knew that the government would not hesitate to use the army violently to suppress a general strike. Indeed, the ruling elite [die Machtelite] would have preferred to eliminate altogether the socialist vagabonds without a country, as they were once described by the Kaiser, for imaginable time, in order to cement their position of power. And Tirpitz belonged to the more extreme wing of such conservatives, and had been all his public life determined to mould a Reich in the monarchist, imperialist mould. But there were also very conservative critics of the Tirpitz Plan. As Alfred Vagts has pointedly observed:

[By] July 1918, the whole hatred of the army for the navy, and the visionaries of sea power, broke out in judgements highly unfair as far as the actual services of that arm in the war were concerned. [And quoted General Max Hoffmann who said] “Our naval policy before the war was radically wrong and the main reason for England’s hostility […] During the war our fleet has cost us men and money. I don’t see any military benefit in it.” This judgement came about twenty years too late.

The British naval historian, Peter Padfield made an even more trenchant criticism:

Tirpitz’s fleet was not only useless, but quite as counterproductive, in the stress of war - diverting scarce resources from more potent arms and breeding disaffection and finally mutiny - as it was the diplomatic tussle leading up to the war, when it first alerted the British, then forced them into the opposing camp. His mistake was not to start the fleet programme - in all the circumstances of 1897 that was inevitable and correct - but to continue it long past the point of military and diplomatic effectiveness or economic sanity.

In a word, the aim had been to cement internal social cohesiveness by stirring up great imperial enterprises abroad; scarcely a perceptive policy in the context of the times. Of course, the army may have been perfectly right in their assessment, but the fact remains that the German power elite whether it supported the Tirpitz Plan or the objectives of the Schlieffen Plan for the army were striving for the same thing: world domination [Weltherrschaft] to which they and their academic supporters believed Prussia-Germany was called by Providence. The internal argument between army and navy supporters was one simply about means, how best to distribute limited resources.

There was, of course, an alternative to all this, namely the model proposed by such far-sighted statesmen as the former Governor of German Samoa and later foreign secretary, Wilhelm Solf, and the previous ambassadors to London, Count Paul von Metternich and Karl Max Prince von Lichnowsky. All these men and others, diplomats of the old school, naturally perceived Germany as a great power, but as Britain’s junior partner in
a joint civilising mission to the wider world to which they believed the highly developed European powers were obliged. Alfred von Tirpitz did not see it this way; neither did the Kaiser, such was the extent of their hatred of England. They both lived to regret their delusions.

Endnotes

* This paper acknowledges the pioneering research of Dr Peter Overlack, concisely summed up in his paper ‘Cruisers or Battleships? Challenging Britannia: The Naval Debate in Wilhelmine Germany’, Chauvel Seminar Series, University of New England, Armidale, NSW, 15 March, 2001. I also wish to thank Dr Bruce Gaunson for his advice on an earlier draft of this paper.


2 Roger Fletcher, Revisionism and Empire, George Allen & Unwin, London, 1984, p. 151. The international research on the causes of World War I is understandably extensive. A good example of international collaboration in this endeavour is by MF Boemke, R Chickering and S Förster, Anticipating Total War: The German and American Experiences 1871-1914, Cambridge University Press and German Historical Institute, Washington 1999. See especially the contribution by Förster, ‘Dreams and Nightmares: German Military Leadership and the Images of Future Warfare 1871-1914’, pp. 343-376. However, Förster’s conservative exculpating interpretation of the intentions of the German leadership is questioned radically by the Hamburg historian, Bernd F Schulte in a number of detailed editions of the relevant documents that had not previously been evaluated. See, Rückbesinnen und Neubestimmen: Beiträge zur Deutschen Frage, 1850-1990, Forumfilm, Hamburg, 2000; Aufstieg oder Niedergang:Deutschland zwischen Mittelalter und Postmoderne, Abteilung Geschichte und Zeitgeschen, Hamburg, 2008; Deutsche Policy of Pretention: Der Abstieg eines Kriegerstaates 1871-1914, Abteilung Geschichte und Zeitgeschen, Hamburg, 2009; Die Verfälschung der Riezler Tagebücher, Peter Lang, Frankfurt am Main, 1986. Dr Schulte is a champion of the ‘Fischer School’ which sees the causes of World War I chiefly in the policies adopted by the Prusso-German power-elite from Bismarck’s time until 1914. On the ‘Fischer Controversy’ see John A Moses, The Politics of Illusion: The Fischer Controversy in German Historiography, George Prior, London/New York, 1975.


4 This famous study was first published in 1890 and made an enormous impression on the Kaiser who instructed that all his naval officers should become familiar with it. The interesting thing is, however, that Germany according to Mahan’s definition could never really become a great sea power as it had only a short coastline and was geographically effectively landlocked so that it was by nature of things destined to remain a land power. Obviously, both the Kaiser and Tirpitz developed the fateful ambition to turn this situation around. See pages 29-89 of the 1965 edition published by Methuen, London.

5 JEED Acton to Bishop Mandell Creighton, 13 April 1887, in J Rufus Fears (ed), Essays in the Study and Writing of History - Selected Writings of Lord Acton, Liberty Classics, Indianapolis, 1985, vol II, p. 383.


The vast majority of the German intelligentsia including leading Protestant theologians were convinced of Germany’s call by Providence to strive for great power status at the expense of more moribund powers. The literature on this is extensive. For a recent English language contribution see Jeffrey Verhey, *The Spirit of 1914: Militarism, Myth and Mobilisation in Germany*, Cambridge University Press, Cambridge, 2000. On German pacifist intellectuals see Gregory Munro, ‘Friedrich Wilhelm Foerster and the War Guilt Question in Germany, 1914-1930’, in J Moses (ed), *Collegial Canon: Essays in Celebration of John Morgan*, University of Queensland Press, St Lucia, 2013, pp. 106-126.


Johannes Wilms, *Bismarck: Dämonie der Deutschen-Anmerkungen zu einer Legende*, Kindler, Munich, 1997 in which the author documents how disastrous was the Bismarckian concept of politics, both domestic and international, that Bismarck bequeathed to his Prussia-Germany. Tirpitz misguidedly pursued what he thought was the creation of a world political instrument that would guarantee Prussio-German supremacy in the world for imaginable time at Britain’s expense. See the very latest biography of Bismarck by Jonathan Steinberg, *Bismarck: A Life*, Oxford University Press, Oxford/New York, 2011.

As indicated, Tirpitz studies have burgeoned in recent years, but see Volker R Berghahn, *Der Tirpitzplan*, 1971 and more recently, Kelly, *Tirpitz and the Imperial German Navy*.

In his memoirs, Tirpitz bequeathed the following accolade to his professorial mentor:

> Von den grossen Historikern, die in einem früheren Menschenalter die öffentliche Meinung führten, war keiner mehr am Leben, nachdem auch Treitschke gestorben war, der herrliche Mann, bei dem ich von 1876 ab an der Universität gehört und mir auch privatim, bei Josty neben ihm sitzend und meine Fragen auf einem Zettel kritzelnd, hatte Rat holen dürfen. Warum Treitschke’s Geist in der deutschen Historie erloschen ist, verstehe ich nicht.

Paul M Kennedy, ‘Tirpitz, England and the Second Navy Law of 1900: A Strategical Critique’, *Militärgeschichtliche Mitteilungen*, vol 2, 1970, p. 50, commenting on the overall situation in Germany with regard to defence and foreign policy, noted: There was a chronic lack of ‘priority fixing’ in German policy at the turn of the century, with the Navy striking out on an anti-British line, high finance reaching towards Turkey and the near East, the army planning as ever for their two-front war and giving little regard to a conflict with Britain, while [Chancellor] Bülow tried to fulfill the impossible task of making German policy serve all these conflicting aims.

Kennedy’s chapter 13, ‘Weltpolitik and Alliance Talks’ makes abundantly clear that achieving common ground between Britain and Germany at that time, 1897-1902, was quite impossible due to German insistence on naval expansion. For that friendship with Britain would have been more than a diplomatic inconvenience.

The best contemporary analysis of the rationale behind German foreign policy prior to World War I is by Kurt Riezler a highly placed public servant who wrote under the pseudonym of JJ Ruedorffer, *Grundzüge der Weltpolitik in der Gegenwart*, Deutsch Verlagsanstalt, Stuttgart/Berlin, 1915. This book was a publishing sensation having first appeared in 1913 and having gone through numerous editions. See Wayne C Thompson, *In the Eye of the Storm: Kurt Riezler and the Crisis of Modern Germany*, Iowa State University Press, Iowa City, 1980.


The aim of the German Cruiser Squadron’s advance against the west coast of the United States is firstly to prevent naval forces in East Asia and possibly also those of the west coast from proceeding to the Atlantic to unite with their battle fleet…¹

One may well ask what relevance events of nearly a century ago have for today. The current relations of the principal Asian nations to each other bear many of the attributes of the European balance-of-power system of the 19th century. Any significant increase in strength by one of them evokes an offsetting manoeuvre by the others. The stability of the Asia-Pacific region and the underpinning of its prosperity is the consequence of an equilibrium which will need increasingly careful and deliberate tending in the current political climate. The future of American sea power still turns on the US Navy’s ability to exercise ready access to East Asia. As in the past, America’s strategic gaze is still fixed squarely on the maritime eastern hemisphere.

Paul Kennedy observed that the study of operational planning before 1914 is of particular importance because it was the first time that war plans were formulated in a systematic manner in peacetime.² This chapter examines the rationale of action against the trade and ports of the North American west coast as the second arm of a pincer movement in tandem with operations against the United States east coast; and against Canadian trade and ports primarily in a war with Britain, but also in war with the United States alone.³ The German aim was to hold American naval forces in the Pacific and stop them reuniting with the Atlantic fleet to oppose a German attack. Was the possibility of conflict a reality? German involvement both in Latin America and its actions in Asia in the decade preceding 1914 caused the United States considerable apprehension.⁴

It is important first to set the background context to the prewar issues at play. Following the thesis that Imperial Germany had given up Weltpolitik by 1906 in order to concentrate fully on continental politics, many scholars tend to minimise the role of non-European powers in shaping German foreign policy.⁵ The colonial history of Imperial Germany was very different from that of other European powers, not least because of its relative brevity. Sir John Seeley, writing of the British Empire in 1883, commented that ‘we seem, as it were, to have conquered and peopled half the world in a fit of absence of mind.’⁶ In contrast, the entry of Imperial Germany onto the world stage was the result of cold Wilhelmine calculation. It was generally believed that only states of continental scale had any chance of holding their own as great powers in the 20th century. The American Alfred Thayer Mahan put a relevant naval twist on this view but it was in any case
clear from immediate history that it was far easier to build empires outside Europe than within it. German naval planners were deeply influenced by his view that maritime commerce decisively influenced the wealth and fate of nations. Mahan’s *The Influence of Sea Power upon History, 1660-1783* (1890) was translated by the German Navy Office and distributed widely. According to Mahan, Britain, Germany, and the United States were entering the final phase of a struggle for economic supremacy. Mahan’s concept of sea power extended beyond naval superiority; that in peacetime, states should increase production and shipping capacities, acquire overseas possessions, either colonies or privileged access to foreign markets. This put the United States on a collision course with similar German aims in Asia. From the beginning, the German Admiralty Staff was concerned about the expansion of American power into the Pacific and East Asia where the United States was a rival to Germany’s own economic and political aims.

Holger Herwig was one of the first German historians to examine pre-1914 planning by the German navy against the US Atlantic seaboard. This paper extends the theme by focusing on strategy devised for warfare in the Asia-Pacific region. Decades before the outbreak of World War I, Germany, the United States, Britain, and Japan were already on a collision course in the Pacific. The United States also had longstanding commercial interests in China and the Pacific. Making the journey to China and maintaining the US presence there also required a network of ports extending across the Pacific, and the China trade soon compelled the United States to expand its presence throughout the region. In 1898 it gained the Philippines after the Spanish American War and annexed the Hawaiian Islands. With its own designs on the Philippines, Germany viewed these developments with increasing concern. There was a pressing need, as viewed from the German Admiralty, for a permanent base in the Pacific area to accommodate the vessels of the East Asia Cruiser Division (as it was then known). Germany acquired a forced lease on the Chinese mainland in Kiautschou in 1898 where it developed the major naval base of Tsingtau and purchased the Marshall and Caroline islands from Spain in 1899.

American reaction was swift. The *Washington Post* commented in 1898 that the German Empire was ‘prosecuting a scheme in direct opposition to our national policy…it has always promoted colonisation with the ulterior design of territorial acquisition’. The role America might play was noted early. Ambassador Paul von Hatzfeldt in London commented with some foresight in 1889 that ‘The monetary surplus in the American treasury makes possible an almost unlimited increase in naval forces which…could play a part in a possible European conflict’.

Why was the United States so interested in the Asia-Pacific? It had always been driven by the idea of ‘manifest destiny’, which was at first the idea that the United States was to expand over the whole continent of North America. While Canada and Mexico seemed blocked to further expansion, with the reaching of the western frontier the impulse to further expansion spilled out into the Pacific and onward into Asia. Mahan’s ideas, which dovetailed with the notions of social Darwinism, were not the only ideas that propelled Americans’ thoughts beyond their borders. The culmination of this newly
evolving American foreign policy was a renewed confidence in the essential idea of an expanded Monroe Doctrine - that the United States was the gate keeper and protector of the Western Hemisphere. Many Americans, including President Theodore Roosevelt and Secretary of State Elihu Root felt that to safeguard its own interests, the United States had to stake out spheres of economic influence as well. That view was seconded by a powerful naval lobby, which called for an expanded fleet and network of overseas ports as essential to the economic and political security of the nation.

The United States now held a strategic advantage in the Southeast Asian and central Pacific region through its possessions in the Philippines and Hawaii. As Germany also sought to expand its commercial and naval presence in the Pacific, Captain Baron von Lüttwitz of the General Staff took to heart Mahan’s dictum that ‘Naval strategy may win victories even in peace-time by the acquisition of local bases on foreign shores.’ Further, Lüttwitz’ recommendation for ‘the destruction of the enemy’s dépôts and the base at home as the principal or as a collateral object’ was incorporated into detailed planning.

German naval operational planning against the eastern United States seaboard is complemented by the little acknowledged function of cruiser warfare which was to be carried out by the East Asia Squadron based at Tsingtau, ranging across the huge expanse of the Pacific and Indian oceans. With the emphasis on battleship construction for an expected clash with Britain in the North Sea, why did the German navy devote so much effort to wartime planning for the Asia-Pacific region - which included the extension of operations to the North American Pacific coast?

The German documents expressly state that the merchant trade of Britain, it’s Empire and allies would be a prime wartime target. There was absolutely no doubt in the minds of German planners that an attack on American and Canadian merchant shipping and port facilities was both feasible and essential. In tandem with similar plans against Australasian trade through the Suez Canal, and in Argentinean waters, the aim was to disrupt the British economy by the interdiction of raw materials and foodstuffs, and cause social unrest which would force the British government to negotiate on terms acceptable to Germany. Thus German activity in the Asia-Pacific region is placed in a world-political context of significance.

A Clash of Interests in the Pacific

Major General Arthur MacArthur regarded the doctrine of the Pan-Germans as ‘being fostered and propagated by the imperial Government in every possible way’ throughout the world. He predicted ‘a war in the immediate future between the United States and Germany, and that the principal scene of the fighting would be in the Pacific Ocean...’ Germany had objected to the American annexation of Hawaii in 1898 since the nullification of all Hawaiian treaties was regarded as a threat to German interests. In an age of coal-fired steamships, nations found it imperative to lease or possess coaling stations for resupplying fuel on important ocean routes, sometimes in remote locations. German shipping needed maritime bases in such far-flung regions as the Indian and Pacific oceans, and dispute over such possessions brought Germany into contention
with the United States over Hawaii, Samoa, and the Philippines.

Effective use of commerce destroyers required dispersion, which necessitated overseas ports where they could coal, arm, and seek refuge. To this end, Foreign Secretary Bernhard von Bülow believed that possession of the Philippines would determine control of East Asian waters, and in 1898 Admiral Eduard von Knorr elaborated in detail the Admiralty Staff’s interest in obtaining at least a foothold there. Kaiser Wilhelm II emphasised that the ‘main object of German policy [toward the Philippines was] to leave no opportunity unused...for the acquisition of maritime bases.’ Ongoing tension culminated in the famous 1898 encounter between Squadron Commander Otto von Diederichs (later German Admiralty Chief) and Admiral George Dewey in Manila Bay. Bülow believed that whoever controlled the Philippines controlled Far Eastern waters. In 1903, the historian Ernst Francke railed against the American attempt to achieve a trade monopoly in both Americas while also attempting to control the Pacific, ‘the Mediterranean of the future’, where great decisions of world policy would be made. Germany’s interests in these regions were seen to be menaced by American competition. Conversely, American concerns about German intentions had two clear aspects: penetration into Central and particularly South America; and German designs on positions in Asia which were considered essential to American economic expansion and strategic security. The Pacific was seen as the new resource-rich area of exploitation for the expanding American economy. Its industry demanded supplies of metals such as manganese, tungsten, antimony, tin, nickel and chromium, which were found around the Pacific rim, and this combined with trade and commercial investment, particularly in China, brought a convergence of economic and political interests between Germany and America. In the view of the New York Times, ‘Germany seeks with the fiercest earnestness three things...colonies, sea power, and foreign commerce’.

There were also purely strategic interests. In his 1909 book, The Coming Struggle in Eastern Asia, BL Putnam Weale stressed the ‘tremendous importance of the question of mastery of the Pacific: the United States...must place on the Pacific waters the marine equivalent of steel rails-war ships and merchant vessels in large numbers.’ While the public German attitude towards the United States was ‘effusively cordial’, as exemplified in the 1902 visit to the US of the Kaiser’s brother Admiral Prince Heinrich, below the surface the two nations ‘were engaged in a bloodless but desperate contest over policies and enterprises which...seems bound to culminate in a conflict’. The announcement of a permanent German West American Station in 1902 was seen as ‘the next step...toward the acquisition of naval bases’ and caused considerable unrest in naval circles given the existing concern about what the Germans planned with their East American Station. German designs on Asia were also threatening to American economic expansion and strategic security. America had to be made completely secure in the Pacific, and ‘an absolute naval mastery there is consequently the first thing which should be aimed at’. A clash of German-American interests now seemed inevitable. It was a short-sighted observer indeed ‘who does not see in these powerful German squadrons, patrolling the American continent on the East and West, the possible fore-token of
momentous eventualities. Conversely, Vice Admiral Curt Freiherr von Maltzahn observed in 1912 that the German merchant marine was a thorn in the Americans’ eye, and they certainly would hope to be its heirs should any war sweep it from the sea. In Washington, Ambassador Theodor von Holleben was instructed to emphasise the advantages of cooperation with Germany, which could function ‘only on the basis of mutual considerations in questions such as coaling stations, maritime bases, and the like.’

American Pacific commerce was extensive, estimated at some $300 million by 1901. Here China came increasingly into the equation. American commercial penetration there now also meant that the United States and Germany would be economic rivals. Germany had specific and far-reaching plans for Shantung Province from its foothold in Kiautschou, and had significant financial influence over Russian development in Manchuria.

Given that the annexation of the Philippines remained long in German memory, others believed that Germany would attack the islands as their capture would enable the United States to be expelled from the Asian market. At this time the US Navy in the Pacific comprised just four armoured cruisers capable of facing their German counterparts. It was clear to many Americans that the Philippines ‘lie practically at the mercy of the first comer’. A powerful American battle fleet in Asian waters would provide insurance against catastrophe, and the element which would create a new balance of power. This is precisely what Germany sought to prevent.

German Planning to 1910

In the years between the Spanish-American War and 1914, in Asia it was not Japan but Germany which became the prime potential opponent in the eyes of the US Navy. A remarkable aspect of overall German considerations at this time was the broad scale on which simultaneous undertakings were to be conducted. German planners envisioned several alternative war scenarios [Kriegsfälle]. German naval plans for cruiser warfare against the United States can be traced to a study of March 1889 after the Samoan dispute, which developed into annual operational planning. An important corollary to the main war in Europe and the Atlantic would be harassment of British and American commercial shipping in the Pacific by the East Asia Squadron.

Operational planning for Asia and the north-eastern Pacific had a direct supporting relationship to major operations against the Atlantic coast. In March 1903, Chief of Admiralty Staff Wilhelm Büchsel informed the Kaiser that

There can be only one objective for Germany’s war strategy: direct pressure on the American east coast...a merciless offensive designed to confront the American people with an unbearable situation through the dissemination of terror and through damaging enemy trade and property.

Indeed in 1903 the Americans considered a full German attack against the Philippines
The War at Sea: 1914-18

In Operationsplan III, formulated between 1898 and 1906, Büchsel and Diederichs, in cooperation with Chief of the Army General Staff Alfred Graf von Schlieffen, anticipated a full naval advance across the Atlantic via the Azores and West Indies to attack New York or Boston. The East Asia Squadron’s main function was to keep its American counterpart occupied in the Philippine’s region to prevent it rejoining the Atlantic fleet, while the German expedition was attacking strategic points on the east coast. This was changed in 1903 because the United States was expected to strengthen its forces in Asia by five battleships, which now required the East Asia Squadron to emphasise operations along the American Pacific coast. Here trade and ports were particularly vulnerable. The ‘throng of richly laden but helpless vessels will present to the enemy a noble field for attack by the guerre de course...’.

In 1913 the Squadron Chief, Vice Admiral Maximilian Graf von Spee, observed that in the Pacific, the permanent stationing of a warship off the Mexican coast was intended to provide a position against the United States, ‘...the despatch of a few ships serves to indicate how we stand on the matter.’

In the 1903 Operational Plan, the recent strengthening of the American Asian Squadron, particularly with battleships (Büchsel believed five, of which three were actually present) in his assessment made the existing orders to engage American forces at the Philippines impossible to implement, and also left Tsingtau open to attack. The solution appeared simple enough:

It can well be assumed that given the sensitivity of the Americans about attacks on their territory, the appearance of the Cruiser Squadron on the Pacific coast of the United States will result in an immediate recall of a large part of the [American] East Asian Squadron.

If it were not possible for the German cruisers to continue operations because of American superiority, they could return to Asia or find useful activity in the Atlantic. These guidelines were incorporated into the new operational orders. It was envisaged that the Squadron’s ships would operate as a tight unit. An immediate thrust would be made against the Pacific coast of the United States, with the aim of drawing American naval units away from East Asia where the remaining cruisers would undertake commerce warfare. In the event of war with Britain, an advance would be made against Canadian Pacific ports with the aims of decimating trade in this region, and defeating British naval forces located there. The prospects appeared good. The rich United States coastline excluding Alaska skirted one-third of American shores, ‘exposed directly to bombardment from the sea’. The defences at San Diego, San Francisco and the mouth of the Columbia River were obsolete and considered easily neutralised.

In 1904 Büchsel clearly stated that the aim of action against the American Pacific coast was ‘to hinder the Americans in sending their East Asian Squadron by the shortest route to the Atlantic war areas... [and] to relieve us in East Asia’. This operation had to be implemented as quickly and as forcefully as possible. In the case of war against Britain alone, San Francisco was seen as the most appropriate provisioning and coaling port,
and intelligence agents were active there. This period also saw some more fanciful schemes such as the Kaiser's idea of acquiring a naval base on the Mexican Pacific coast, which would reduce the difficulties of operational planning. Acquisition of Baja California was mooted, and Magdalena Bay could be 'a secret naval station of the utmost importance'. Even the cautious Ambassador Theodor von Holleben believed that the day would come when Germany and the United States 'would have to settle this issue' of German aspirations in what was considered an American exclusion zone.

By late 1904 the installation of intelligence agents along the Pacific coast of the United States and Canada had established a more secure basis for operations in this region. The new Squadron Chief, Vice-Admiral Kurt von Prittwitz, submitted an elaborated plan with changed emphasis to the Kaiser. An attack on the west coast remained paramount as it would have the additional value of causing panic and directing public attention away from the main operation planned against the Atlantic coast. Prittwitz assumed that the weak American forces stationed on the Pacific coast in peacetime could be evaded there, and action would be against individual cities and coastal shipping and trade. If a force consisting of four to six cruisers (including one armoured cruiser) were able to force the mouth of the Columbia River, the ensuing destruction of the harbour facilities and associated economic disruption 'promise to have a considerable effect on the population'.

A revision of orders in 1905 was thorough and considered several questions which had arisen. The first was the choice of route, which would be determined by the limitations imposed by the operational radius of the warships. Because there could be no individual stretches longer than 3000 miles on a route, the normal trans-Pacific postal steamer routes (Victoria-Yokohama and San Francisco-Honolulu-Yokohama) could not be considered. Both could be replaced by a staged advance, in the north via the Aleutians, in the south via the Mariana and Marshall islands. The choice between these two would be determined by a number of considerations, including the departure harbour in East Asia, the extent of operations on the American coast, which of the routes offered the greater support for the undertaking, and the possibility of attacking merchant shipping while underway. In a war against the United States, with San Francisco being the main target, Valparaíso would be the main source of supply. An island south of San Francisco in neutral Mexico would be used as a coaling station, such as Melpomene Cove on Guadaloupe Island.

An important factor was that of a route where damage could be inflicted on enemy forces while underway to the American coast. The southern route offered more opportunities. Guam and Honolulu were important naval stations and the coal there was 'of the greatest importance for both the American Navy and all merchant shipping'. An attack on these would also permit the destruction of the San Francisco-Honolulu-Midway-Guam-Manila cable which was the information lifeline for American forces in Asia. That such action would advertise the Squadron’s position in fact would be an advantage, considering the main aim of the operation was to keep American forces occupied in the Pacific:
The aim of the Cruiser Squadron’s advance against the west coast of the United States is firstly to prevent the naval forces in East Asia and possibly also those of the west coast from proceeding to the Atlantic to unite with their battle fleet. It can be assumed that this aim will be achieved by threatening the west coast, that already a definite message of our advance eastwards, for example, from our appearance at Guam, will suffice to cause the American squadron to follow us. Secondly, the advance will serve to damage the enemy by operations against Guam, Honolulu and the harbours of the west coast, primarily San Francisco.

This region also promised more fruitful attacks on the frequent shipping around Hawaii. 

When in December 1906, Squadron Chief Vice Admiral Alfred Breusing advised the Kaiser of the state of current operational planning against the United States in Asia, he noted that American forces recently had undergone a significant change in that both battleships had been recalled and replaced with four Pennsylvania class armoured cruisers. In a war with Germany, the United States could not afford to have such ships absent from the Atlantic.

On outbreak of war at the latest a number would certainly be ordered home, the others would only remain here as long as Your Majesty’s Fürst Bismarck was out of battle range or damaged. Against two Pennsylvanias… Fürst Bismarck would be able to fight with prospect of success due to its superiority in artillery and armour, if it entered battle under favourable conditions.

In view of this assessment, Breusing recommended awaiting the American force in Tsingtau, or drawing it into the immediate vicinity to give optimum battle conditions. Should a superior force appear before Tsingtau, then the presence of Fürst Bismarck still would ensure that the bulk of the American force would be pinned down there - the implication being that other American positions, particularly in the Philippines, would be exposed to German attack. It must be borne in mind that at this time squadron chiefs still anticipated the despatch of reinforcements from Europe. Early in 1908 Squadron Chief Vice Admiral Carl Coerper confidently reported that as a result of the withdrawal to the west coast of four armoured cruisers of the First Division of the American Pacific Fleet - as his predecessor Breusing had predicted - the comparative strengths of the forces in Asia had swung so much in favour of Germany that the squadron core would be capable of immediately taking the offensive against the remaining American force.

More comprehensive plans were formulated and issued in early 1910 by Squadron Chief Vice Admiral Friedrich von Ingenohl. Considerable independence in decision making was given to the captain of the cruiser on the West American Station, who received only general guidelines for all ‘War Cases’. In the event of war against the United States alone, the early period was to be used for energetic action against American trade along the continental Pacific coast. This was a realistic prospect which the Americans took seriously. In an article in The Times on 1 December 1898, Mahan wrote that American coastal trade remained extremely vulnerable,
the protection of which will make heavy demands upon us in any maritime war... The bulky cargoes carried by it cannot be transferred to the coastwise railroads without overtaxing [their] capacities...all of which means...serious injury to all related industries dependent upon this traffic.\textsuperscript{55}

In the event of war with the United States and Britain - resulting in the squadron facing a superior force in northern Pacific waters - allied trade could be attacked along the South American coast with its heavily used routes from Argentina.\textsuperscript{56} From 1910, with the \textit{Dreadnought} race in full swing and increasing preoccupation with Britain and the North Sea as the main theatre of expected conflict, detailed yearly planning for the American Atlantic coast was discontinued.\textsuperscript{57} Operations in the Pacific, however, retained their emphasis.

\textbf{Refining the attack, 1912-14}

In November 1912, Squadron Chief Maximilian Graf von Spee composed a lengthy consideration of the directives. The problem lay in the nature of the American naval force which the Squadron could be expected to face. As long as only the regularly stationed American forces which were inferior to the German had to be dealt with, the existing operational plans for the Asia-Pacific region - including attacks on the American west coast - were valid. If the Squadron were in the south of the Station, a sudden strike against Manila, Olongapo or Cavite would produce a quick and morale-boosting victory.\textsuperscript{58}

A key factor was the lack of firepower for the scale of operations planned. The previous year von Spee also had raised the issue of an insufficient support infrastructure on the American west coast. In operational terms, if the American forces could not be drawn from Asia to the Philippines, then the best course of action would be to establish a battle line on the extreme northern edge of the region. This would draw the Americans far from their operational basis in Manila, while the East Asia Squadron could take full advantage of Tsingtau’s facilities. After a possible weakening of American forces by mines and torpedo attacks, the German armoured cruisers could attack at an opportune moment.\textsuperscript{59} To assist with this von Spee requested an additional half flotilla, which was denied - a decision which was to change the course of events in 1914.

Von Spee strongly supported the view that the United States would strengthen its forces in the Pacific in the event of war with Germany. While there was some substance to the assumption that American forces on the Pacific coast would be withdrawn to the Atlantic, he was not convinced of this ‘and from a military standpoint must take into consideration that the local forces will be strengthened’. In this event, it was essential that if the Squadron were to utilise its temporary superiority, action would have to be taken immediately. The only rational course of action was ‘an energetic and speedy attack’ on American forces around the Philippines.\textsuperscript{60} Closer to the continental United States, the cruiser on the West American Station would attack trade on the main Yokohama-Honolulu-San Francisco-Seattle route.\textsuperscript{61}
In October 1913, von Spee emphasised the strategic importance of the Pacific region and the Squadron’s function in taking aggressive action in Canadian and American domestic waters:

> If we wish to achieve a really tangible effect...A brief traversing of the main trade routes will bring only very small results...We have to appear in tight formation where the traffic comes together, before important harbours or in unavoidable passages.\textsuperscript{62}

If Germany chose a time when any considerable part of the US Navy was in the Pacific, the results for the United States would be ‘catastrophic’. The Germans would have time to send a superior force to Colon and block the Panama Canal, splitting American forces. Germany then would have practical control of the sea which would leave the United States in a ‘desperate situation’.\textsuperscript{63} In light of this, Büchsel’s original aggressive operational plans for the East Asia Squadron to hold American forces in the Pacific and prevent their unification with the Atlantic Fleet received their proper significance.

**Conclusions**

By November 1909, it had become clear that Germany’s naval construction program would leave it superior to the United States in just a few years. Already Germany had displaced it as the world’s second naval power. While there was still some uncertainty in Admiral Dewey’s mind about whether Japan or Germany would be the first and more probable opponent, it was accepted that the latter was ‘the most formidable’.\textsuperscript{64} The United States fully expected a clash with Germany as the economic and strategic interests of both nations increasingly came into conflict in the Asia-Pacific region. The American assessment is most clearly shown in the 1913 War Plan. As well as American opposition to Germany’s plans in the anticipated division of China, there were ‘latent causes that render a break with Germany more probable than with either of the other two great maritime powers...\textsuperscript{65}

Yet in the German view, all seemed to augur success. Bülow wrote in 1914 that ‘German policy...was able to secure support bases which promised well for our international interests in the future’. Kiautschou secured Germany’s ‘place in the sun in the Far East, on the shores of the Pacific which have a great future...’\textsuperscript{66} However the European situation was changing to Germany’s disadvantage, due to the erratic machinations of Kaiser Wilhelm II. As the German-British antagonism intensified in 1904 due to Germany’s expansive naval shipbuilding program, the German government began to extend a hand of friendship to Washington. Both Wilhelm II and Bülow viewed a temporary German-American rapprochement as a possible strategy to safeguard the German battleship fleet during the construction period. By 1907, after Germany had become almost completely isolated by the Anglo-French Entente, the Anglo-Russian understanding about Persia and Tibet, and a Far Eastern system of ententes with Japan at its centre, the United States became an even more attractive potential ally. Unfortunately, there were few common interests providing a basis for a German-American understanding.
In December 1914, Admiral Alfred von Tirpitz nonetheless used an interview with the American United Press correspondent in Berlin to boost a German-American connection against the ‘Japanese peril’. He indicated that Germany might support the United States in a Japanese-American war, and he mentioned the possibility of global German-American cooperation. Since Kiautschou had already been captured by the Japanese, the interview seems more a continuation of the habitual German strategy of deflecting the United States to the Pacific and driving a wedge into the Anglo-American relationship.\(^6^7\) In any event, the narrow basis for German-American cooperation in East Asia had completely disappeared by 1913 with President Woodrow Wilson. Thanks to the clumsy manoeuvres of some German diplomats, the United States also knew perfectly well that Germany was trying to improve its own global position by stirring up American-Japanese tensions.\(^6^8\)

Germany’s failure to seize several opportunities to secure an accommodation with Japan meant that its unexpected entry into the war threw all plans for the region into disarray. But for this, the Cruiser Squadron would have attacked Anglo-Canadian and American merchant trade and ports on a full scale according to its operational plans. This is given a broader perspective when it is remembered that the German Foreign Office considered sabotage acts in Canada following the rumour in December 1914 that Japan planned to transport troops across the country and then on to Europe.\(^6^9\) Although by 1914 Germany expected that the United States would remain neutral, attacks in American coastal waters and against American possessions in the Pacific remained a fallback option.

In 1914, the position of Kiautschou, in military and naval terms, was hopeless once Japan entered the war against Germany. This was a factor which planners did not take seriously into account. The overwhelming Japanese force ensured that German retention of the territory was impossible. The administration, under the leadership of Governor Alfred Meyer-Waldeck had little in the way of resources with which to defend the area from the military and naval power that the Japanese could deploy. From its Chinese campaigns, the Japanese army had direct experience of conducting formal siege operations, which it proceeded to implement effectively against the undermanned German garrison. The loss of this base sealed the fate of the East Asia Squadron and nullified all operations against the United States.\(^7^0\)

What needs to be kept in mind is what was intended to be achieved. The topic is not one of those interesting but irrelevant ‘what if’s’ of history. The German plans speak for themselves, clearly spelling out the intention to attack shipping, blockade ports, and where possible engage warships in the coastal waters of the continental United States. For the latter, this would have been a major disruption hampering any active support of Britain. With the negation of the East Asia Squadron following the fall of Tsingtau, the United States was freely able to expand across the Pacific, and this fundamentally changed its global position. But just as the first rival had been eliminated, a second and more dangerous one loomed in the form of Japan as the 20th century progressed.
Endnotes


4. By 1900 American naval planners were obsessed with German designs in the region and countered with energetic efforts to secure naval sites in the Caribbean. As but one example, in the Venezuela crisis of 1902-03 Germany (with Britain) sent warships to blockade Venezuela after it defaulted on its foreign loan repayments, and intended to land troops and occupy Venezuelan ports, but President Theodore Roosevelt forced the Germans to back down by threatening to send the US Navy to prevent this if the Germans landed. See Edmund Morris, “‘A Matter Of Extreme Urgency’ Theodore Roosevelt, Wilhelm II, and the Venezuela Crisis of 1902”, Naval War College Review, Spring 2002, pp. 73-85.


7. Mahan wrote a number of books based on the theme of naval power in history. His basic idea was that to remain great and strong in an ever more competitive world, America needed a powerful maritime force, both naval and commercial, and an overseas infrastructure of naval bases and coaling stations to support a wide-ranging fleet.


10. The United States negotiated the Treaty of Wangxia with the Chinese government as early as 1844, and soon thereafter US ministers and consuls took up residence in Beijing and port cities.

11. A precursor to this force had been formed in the early 1880s, and its importance had grown commensurate with the acquisition of colonial territories. It became a permanently constituted unit in September 1894 following the outbreak of the Sino-Japanese War.

12. The German spellings for Jiaozhou and Qingdao have been retained here.


15. Captain Baron von Lüttwitz, ‘German Naval policy and Strategy’, Journal of the Royal United Services Institute, March 1897, pp. 322, 326. In 1900, Lüttwitz was seconded from the General Staff to the Admiralty Staff in a liaison capacity, and it can be assumed he had considerable insight into overall strategic aims and tactical planning.

16. The term Kreuzerkrieg [guerre de course] can be translated both as cruiser and commerce.
warfare, since the sinking of merchant shipping and the interdiction of trade routes was the navy’s prime function in the Asian-Pacific and Indian Ocean regions. Ivo Lambi touches on it briefly in *The Navy and German Power Politics, 1862-1914*, Allen & Unwin, Boston, 1984, pp. 233-235, 409-410.


20 GP, vol 15, no 4145, Bülow-Kaiser, 14 May 1898.


29 Bülow to Kaiser, 14 May 1898, GP, vol 15, no 4145; Bülow to Hatzfeldt, 18 May 1898, GP, vol 15, no 4146; ‘Anlage betreffend Flottenstützpunkte ...’, 1 July 1898, PA-AA Berlin, R2533; Bülow to Holleben, 1 July 1898, with Kaiser’s marginal note, GP, vol 14, pt 1, no 4151.


32 Admiralty Report, 9 November 1914, RM47/v 525.


37 Spee Archiv, Box T27/7, Vice-Admiral Maximilian von Spee-Grete von Spee, 29 October 1913, commenting on the *Nürnberg*. I am grateful to Dr Maximilian Graf von Spee for access to this material.

38 BA-MA, RM5 885, Büchsels, ‘Zum Immediatvortrag...’.


45 PA-AA, Vereinigten Staaten von Nordamerika, Nr. 5a, Bd. 18, Holleben-Bülow, 14 June 1901.
48 BA-MA, RM5/v 6256, Bl. 84, ‘Der Vorstoß des Kreuzergeschwaders nach der Westküste von Nordamerika’.
49 BA-MA, RM5/v 5970, Bl. 248, Breusing-Kaiser, 3 December 1906. Fürst Bismarck was Germany’s first armoured cruiser; primarily intended for colonial duties, she served in this capacity until relieved from the East Asian Squadron in 1909, at which point she returned to Germany.
50 BA-MA, RM5/v 5970, Bl. 248, Breusing-Kaiser, 3 December 1906.
51 BA-MA, RM5/v 5971, Bl. 139, Coerper-Büchsel, 15 January 1908.
53 Specific War Cases [Kriegsfälle] were designated for all the Powers. ‘War Case A’ was for the United States.
54 BA-MA, RM5/v 6679, Bl. 59.
56 BA-MA, RM5/v 6679, Bl. 59, ‘Operationsbefehle’.
57 Friedrich Forstmeier, “Deutsche Invasionspläne gegen die USA um 1900”, Marine-Rundschau, Bd. 68, 1979, p. 349.
59 Spee raised the question of the use of mines previously in 1911. The Admiralty rejected this on logistical grounds outside German territorial waters. BA-MA, RM5/v 5346, Bl. 233, 23 November 1911.
60 BA-MA, RM5/v 5973, Bl. 235, Spee-Pohl, 4 June 1913.
66 Prince von Bülow, Imperial Germany, Cassell, London, 1914, p. 94.
67 Interview in Die Vossische Zeitung (Berlin), 21 December 1914. On the topic see also BA-MA, RM3, 2978, Ago von Maltzahn- Bethmann Hollweg, 23 August 1914.
68 Roy W Curry, Woodrow Wilson and Far Eastern Policy, 1913-1921, Bookman, New York, 1957,


From the time of its formation in 1869, the Imperial Japanese Navy (IJN) set about establishing supremacy over its rivals in the waters near Japan. In 1895, the IJN destroyed the most capable of China’s navies, the Beiyang Fleet, through a joint Army-Navy assault known as the Battle of Weihaiwei. In 1904, a similar joint operation against Port Arthur trapped, and then wore down the Russian Imperial Navy’s 1st Pacific Squadron. The following year, the IJN destroyed Russia’s Baltic Fleet (renamed the 2nd Pacific Squadron) in one of history’s most decisive naval actions in the Tsushima Strait (known as the Battle of the Japan Sea). Through these actions, the IJN removed key regional threats to Japan’s maritime security, and established its reputation as the most capable navy in Asia. By 1914, the IJN ranked as the world’s fourth most powerful navy after Britain’s Royal Navy (RN), Germany’s Kaiserliche Marine and the US Navy.

When World War I (WWI) broke out in Europe, the IJN faced only one immediate - but relatively minor - threat, posed by the German naval presence in China. By the November 1918 Armistice, its ships had undertaken a series of operations directed against the German and Austro-Hungarian navies across the Pacific and Indian oceans, and in the Mediterranean. Never before - and not since - has a Japanese naval force simultaneously conducted large-scale operations over such a broad expanse of the world’s oceans.

This paper examines the nature of Japan’s naval contribution to the Allied war effort in WWI, and to explain how those experiences shaped IJN thinking for its next war.

Japan’s Entry into World War I

Japan’s involvement in WWI can be traced back to competition with the European Powers for influence in China, a direct result of which was the Anglo-Japanese Alliance 1902. That treaty provided security for British interests in the Far East and for Japan: the two signatories agreed to remain neutral if the other became ‘involved in war’ with a ‘Power’ - originally envisaged by Japan as being Russia, Germany or France - as a result of protecting their own interests in China (for Britain) or Korea (for Japan). In the event of war with more than one Power, the signatories promised each other ‘support’. Thus Britain remained neutral during the 1904-05 Russo-Japanese war, when only one Power (Russia) was involved.

In 1914, however, those provisions made possible Japanese ‘support’ for Britain which was at war with both the German and Austro-Hungarian empires. That said, ‘Japan made her move in accordance with the general spirit of the alliance rather than its specific clauses ... although she had no legal obligation, she had a moral one’. Tokyo did not, however, declare war on Istanbul, probably because there was no demonstrable Ottoman threat to Japan.
But the prospect of Anglo-Japanese naval cooperation was not embraced with equal enthusiasm across the British Empire. ‘Australian apprehension that Japan would seize the opportunity to extend her empire further southward’ meant London was initially reluctant to call upon Japanese assistance. Despite the Anglo-Japanese Alliance, Japan’s shock defeat of Russia in 1905 saw successive Australian governments ‘treat Japan with a mixture of suspicion and mild contempt’. Three weeks after the Japan’s decisive defeat of Russia at Tsushima, the Australian Prime Minister Alfred Deakin identified Japan as a ‘defence threat’ for the first time.

When in an important speech on 17 March 1914 [then First Lord of the Admiralty] Winston Churchill asked for Australian and New Zealand Dreadnoughts to strengthen the decisive theatre in Europe, he based himself on the premise that Australia was adequately protected by the Anglo-Japanese alliance. Australian leaders, however, were flabbergasted by Churchill’s implication that the Pacific was to be made safe by the treaty with a nation whose people they did not admit to their shores.

Churchill’s logic had outlined the dilemma confronting the RN. In order to first contain, and then defeat the Central Power navies, the RN needed to dominate all theatres. In the Indian and Pacific oceans, this meant the RN needed Japanese assistance to track down the German East Asia Squadron (under the command of Vice-Admiral von Spee) and the rogue SMS *Emden*, and to blockade Tsingtau.

For Japan, WWI presented an opportunity to continue removing threats from its region. After defeating China in 1895, and then Russia in 1905, war with Germany presented a similar opportunity to further improve Japan’s security by removing the potential threat posed by the East Asia Squadron’s home port of Tsingtau. Not only was this squadron Germany’s largest overseas naval force, to the IJN it represented the only standing naval threat in nearby waters. Moreover, seizure of the German-leased Kiautschou Bay Concession presented Japan with an opportunity to control the maritime approaches to Peking, and to dominate the Yellow Sea.

On 11 August 1914, Tokyo forced London’s hand, informing the British Ambassador that Japan was ‘determined to declare war on Germany, and would at once commence operations to seize Tsingtau, with or without [British] cooperation’. Four days later, Japan delivered an ultimatum for Germany to surrender Tsingtau by 23 August ‘in order that it might eventually be restored to China’. Berlin refused, and the Kaiser commanded the German garrison to defend Tsingtau ‘to the last’. Tokyo formally declared war, laid siege to Tsingtau, and agreed with Britain that the IJN would assume responsibility for the protection of maritime trade north of Hong Kong. Two days later (25 August) Japan declared war on Austria-Hungary - a diplomatic necessity given that the Austro-Hungarian navy’s only major warship in the Far East, the protected cruiser SMS *Kaiserin Elisabeth*, had taken refuge in Tsingtau.

The Japanese siege started slowly. On the evening of 22 August, the small Anglo-French squadron (light cruiser *Yarmouth*, old French armoured cruiser *Dupleix*, destroyer
Kennet, and armed merchant cruiser Empress of Asia) in the vicinity of Tsingtau withdrew to Weihaiwei so as not to become caught between the advancing Japanese and the defending Germans. The IJN and RN later (erroneously) blamed each other for allowing the German light cruiser Emden to slip the net in this 3-day period when neither navy was watching the German port.

Anglo-Japanese collaboration quickly improved, however, as political considerations, mainly the fears of Australia, the United States and China that Japan might embark on a campaign of aggression, compelled [Britain] to lend [its] presence so that the attack on Tsingtau might appear to be undertaken by Great Britain and Japan in cooperation.

This prompted the RN Commander-in-Chief China Station, Admiral Jerram, to despatch the pre-dreadnought, HMS Triumph and a destroyer to escort British troops from Tsiensin to Tsingtau, and to support the Japanese landing.

Siege and Capture of Tsingtau

Ashore

The IJN opened the way for the Imperial Japanese Army’s (IJA) siege by conducting two unopposed landings on the Shandong Peninsula: the first was at Lungkou on 2 September, by a ‘combined naval landing force’ drawn from the 6th Cruiser Division (Chitose, Akitsushima and armoured cruiser Tokiwa), with four naval infantry companies and one Army machine gun company. Just as the landing force reached the shore, a freak storm flooded the beach, tossing men, animals and stores back into the sea. At around 100km distant from Tsingtau, the Lungkou site offered security, but soon proved to be logistically untenable. Emboldened by the less than expected German resistance, sailors from the 4th Cruiser Division conducted a second landing at Laoshan Bay, on 18 September.

Although these ad hoc naval landing forces returned to their ships after the beachheads had been secured, the IJN maintained a presence ashore in the form of a 494-strong ‘naval artillery landing force’ equipped with four 15-cm and four 12-cm naval guns. Together with the warships at sea, this force provided naval gunfire support to the IJA, especially targeting the German seaward defences.

In the Air

An unprecedented aspect of the IJN involvement in the siege of Tsingtau was its use of the seaplane tender Wakamiya Maru. Captured from Russia in 1905, the IJN transformed the 7500 ton freighter into a seaplane tender in 1913. Reflecting uncertainty about her role, and the broader question of the utility of naval aviation, the Maru-suffix denoted her non-warship status (until it was dropped in 1916), and she had also been relegated to the reserve just before the war broke out.
Wakamiya Maru provided a modest capability. With two canvas hangars (one forward, one aft), she was only capable of operating two of her four floatplanes at any one time—the other two aircraft had to be stored disassembled, in her holds. The aircraft themselves were fragile, wooden and fabric contraptions, braced with wires. They were slow, underpowered and unarmed, and communication was limited to the use of semaphore flags attached to a crewman’s elbows and wrists.

The Navy readied Wakamiya Maru for operations on 1 September, but a combination of bad weather and mishaps delayed flight operations for three days. The first flight, on 4 September, encountered heavy cloud over the Tsingtau base and returned empty-handed, but the following day a plane collected critical intelligence on the strength and location of the German and Austrian warships present in Tsingtau. Although some unarmed and paid-off hulks were misidentified as active warships, the sortie confirmed that none of von Spee’s cruisers remained in harbour, thus permitting the IJN to release its more powerful warships to other duties.

Wakamiya Maru’s squadron established another first on that day by dropping bombs, claiming two hits against a German fort. The attack was ineffectual, which is unsurprising given the jerry-rigged bombing apparatus damaged the aircraft’s wing when the bombs dropped. The bombs themselves were little more than 8-cm and 12-cm naval shells, fitted with fins, and dropped from tubes when restraining ropes were cut as the target came into view on a celluloid plate marked with guide lines. In another first, on 16 September, aircraft attacked a German torpedo boat with ten 8-cm bombs. Although the subsequent Japanese claim to have sunk a minelayer by this method is not supported by German accounts, this was probably the world’s first air-to-sea engagement.

The aviators also prepared for aerial combat against the only operable German Taube aircraft at Tsingtau but the outnumbered German proved too elusive. Reports of the first ever aerial engagement(s) also exist, but the actions were inconclusive, and probably involved the IJA’s Farman aircraft, rather than the IJN. At any rate, with only small arms available to both sides, the results of any air-to-air engagements were understandably inconclusive.

On 30 September, Wakamiya Maru struck a German mine, and was forced to return to Japan for repairs, the air squadron transferred to a nearby beach, from where it continued operations until the end of the siege. By the time Tsingtau fell on 7 November, the squadron had flown 49 sorties, totalling 71 hours without any accidents, and had dropped 199 bombs claiming eight hits against the German forts and ships. They had conducted the first naval air attacks against sea and land targets, including the first night time bombing raid. Moreover, the four IJN seaplanes had commenced operations before the eventual IJA contribution of three Farman aircraft (from 21 September).
At Sea

Of course the IJN’s main effort was at sea. Vice Admiral Kat Sadakichi’s 2nd Fleet was tasked with close blockade, supporting the landings and clearing mines. His force included the pre-dreadnoughts Suwo, Iwami and Tango, and the old coast defence ships Okinoshima and Mishima - all prizes from the war with Russia - as well as three armoured cruisers (Iwate, Tokiwa and Yakumo). They were supported by eight light cruisers (Chitose, Tone, Mogami, Yodo, Akashi, Akitsushima, Chiyoda and Takachiho), 24 destroyers and as many repair and supply vessels.

In addition to securing the invasion fleet against sorties by the German and Austrian ships, the 2nd Fleet engaged in daily duels with the German fortress. This was an expensive operation, with the IJN expending 913 rounds of ammunition over the period 28 September and 6 November. In return, on 1 November the ships scored a direct hit on the Iltis Hill battery which was equipped with 4-inch and old 4.5-inch guns.

Meanwhile, Vice Admiral Katõ Tomosaburõ’s more powerful 1st Fleet provided a distant covering force. The 1st Battleship Squadron (semi-dreadnoughts Settsu, Kawachi, Aki and Satsuma) protected the IJN’s forward base at Hakko-ho in Korea, while the 3rd Squadron (armoured cruisers Kurama and Tsukuba, and battle cruiser Kongõ) provided the distant blockade and warning lest von Spee return.

Despite this overwhelming force, the siege was not without cost to the IJN. Weather proved to be a tough adversary as unseasonable typhoons lashed the coast throughout the first weeks of the campaign. The first loss of the IJN came on the night of 30/31 August, when a storm drove the destroyer Shirotae (also written as Shirotaye) aground on Lien Tau Island. On 3 September, the German torpedo boat Jaguar took advantage of Shirotae’s predicament, finishing her off by firing 100 rounds into the abandoned hulk. Six weeks later, on 17 October 1914, a torpedo from the German torpedo boat S.90 hit the mine magazine of the 30-year old Japanese cruiser Takachiho, which had been re-roled as a minelayer, ‘shooting a tower of fire 100 feet into the air’. She sank with the loss of 271 men, including her captain - the largest IJN combat loss of the war.

The Anglo-Japanese siege of Tsingtau formally ended with the German surrender on 7 November 1914. As in the Russo-Japanese War, a European force had been defeated by a Japanese one - albeit with token British assistance. Japan’s entry into the war and its siege of Tsingtau, which forced von Spee to ‘withdraw from East Asia to more distant waters,’ freed the RN to concentrate its efforts in the Indian, and southern and eastern Pacific oceans. As Winston Churchill noted, without a base to operate from, von Spee’s squadron ‘was a cut flower in a vase, fair to see yet bound to die.’

While the absence of von Spee’s fleet meant the siege was primarily a land action, IJN operations provided several salient lessons for amphibious operations. These included the need for detailed mine clearance in defended waters, and coordination of sea-to-shore logistical support. Senior RN officers present reported the general ineffectiveness of naval gunfire against fortified shore positions, the danger to ships engaged in such
duels, and the prodigious amounts of ammunition needed to obtain even modest results, but juxtaposed this with the positive effect on troops’ morale. These were all lessons the RN would learn for itself in the Dardanelles, the following year.

Of course an epochal feature of the Tsingtau siege was the inaugural employment of naval aircraft in the battle. Indeed the involvement of naval air, land and sea forces also made it history’s first truly joint amphibious operation, albeit Japan did not have an air force.

One further aspect remains worthy of note. The fearsome reputation for mistreating prisoners of war that Japan was to earn in World War II (WWII) was not present in WWI. Indeed, ‘the Japanese treated their German prisoners [captured at Tsingtau] so well that, after their final release in 1920, a number of former POWs either stayed in or returned to Japan to work as scientists, technicians, or businessmen.’

The German Pacific Possessions

The IJN also undertook to secure Germany’s north Pacific colonies, acting virtually independently of the civil government. In October, landing parties from the 1st and 2nd Southern Despatch Forces seized - mostly unopposed - the Mariana (Saipan), Caroline (Truk [modern day Chuuk]), Yap, Kusaie [now Kosrae], Ponape, Palau, Angaur and Marshall Islands (Jaluit). As was to become the pattern for the minor German combatants that remained at their Asia-Pacific bases, the small survey ship Planet was scuttled in Yap harbour on 7 October as Rear Admiral Matsumura Tatsuo’s 2nd Southern Despatch Force approached. Planet was the first German ship lost in the Pacific. Two days later, Matsumura’s ships came close to snaring the raider Cormoran off Yap, but she escaped in a squall.

IJN occupation of the German territories was conducted at the suggestion of the British Admiralty, once it became apparent that Australia did not have the capacity to conduct the landings. Nevertheless the move raised international concern. No less a figure than the father of naval strategy, Alfred Thayer Mahan, urged then US Assistant Secretary of the Navy, Franklin D Roosevelt, to warn Britain that Japan’s seizure of the of Germany’s Pacific Island possessions ‘would cause outrage among Americans’.

While the IJN ‘was calling for permanent retention of all occupied islands’, the Japanese government was not initially committed to long-term possession of these German territories. Having captured Yap on 7 October 1914, Tokyo offered to hand it over to Australia, but Australian authorities could not find the necessary escorts for such a convoy - at one stage cheekily inquiring whether the IJN could provide that support. Tokyo’s position soon changed, however, when domestic Japanese sentiment was aroused, and:

Riots emerged in Tokyo when it was learned that the government was prepared to hand over the Micronesian islands to their allies. The commotion caused the Japanese Government to retract its offer, and on 23 November, Britain asked Australia not to proceed to any islands north of the Equator.
After the war, Japan was granted a League of Nations Class C Mandate - which was largely administered by the IJN - over the islands, which it used as springboards in its next war.

### Searching the Pacific for the Kaiserliche Marine

In return for the unsolicited British support at Tsingtau, Japanese cruisers joined RN operations to search for von Spee’s ships, and to protect shipping in the Pacific and Indian oceans. In calculating his options, von Spee’s first concern was the availability of coal for his two armoured, three light and one auxiliary cruisers. The second concern was the presence of powerful Japanese and British vessels in the western Pacific. Consideration of these two factors led the German admiral to conclude that his best option lay in an eastward crossing of the Pacific Ocean to South America where he might find coal stores through German agents, attack British merchant traffic while avoiding the Japanese and British squadrons. To complicate the Allies’ search, he released the light cruiser *Emden* to raid commerce in the Indian Ocean.

The first of the special duty squadrons tasked with finding von Spee was the Special Southern Area Despatch Squadron [*Tokubetsu Nanken Shitai*]. *Ibuki* sailed with HMS *Minotaur* for Fremantle, and then New Zealand, where they collected the first convoy carrying the New Zealand Expeditionary Force, bound for Europe. As the New Zealand convoy joined an Australian one to form the first ANZAC convoy at Albany, the cruiser *Nisshin* was earmarked as an escort, but she needed an estimated 40 days’ repairs after grounding near Sandakan.

The ANZAC convoy had not long left the Western Australian coast when on 8 November *Minotaur* was ordered to Africa, and command of the escorts passed to HMAS *Melbourne*. Barely 24-hours later, *Melbourne* received a wireless signal warning of a ‘strange warship approaching’ Cocos Island. Although she played no direct part in *Emden’s* destruction, *Ibuki* and other Japanese ships continued to provide security in the Indian and Pacific oceans. On 14 September, the 1st Southern Despatch Force (armoured cruisers *Kurama*, *Tsukuba* and *Asama*, accompanied by destroyers *Yamakaze* and *Umikaze*) left Yokosuka to search the Mariana, Caroline and Marshall islands for von Spee’s cruisers.

After separating from *Ibuki*, *Chikuma* had worked with the light cruiser HMS *Yarmouth* (until the latter suffered machinery trouble) searching along the 60 N parallel towards Colombo on 22 September, narrowly missing *Emden*. After rendezvouising with the light cruiser *Yahagi* in the Malacca Strait, *Chikuma* continued searching for *Emden* from Aceh to Rangoon. On 8 November, the two Japanese cruisers joined the armoured cruisers *Tokiwa* and *Yakumo* at Singapore to join the 2nd Southern Despatch Squadron which had been formed at RN request to seal *Emden* in the Indian Ocean. Once there, *Chikuma* and *Yahagi* came under Vice Admiral Tochinai’s command, as he took responsibility for the eastern half of the Bay of Bengal. The armoured cruiser *Nisshin* was also made available.
once her repairs had been completed, and the battle cruiser *Ikoma* left Shimonoseki on 1 November to escort HMS *Monmouth* carrying ammunition from Japan, and then to Hong Kong to collect British troops.

In October, the pre-dreadnought *Hizen* had been despatched to reinforce a British squadron at Esquimalt, in British Columbia. En-route, she was diverted to Hawaii to watch over the German gunboat *Geier*, which had arrived in the neutral port of Honolulu, and was later joined by *Asama*. After *Geier* was interned, the two Japanese ships headed to Mexico, rendezvousing with the armoured cruiser *Izumo*, battle cruiser HMAS *Australia* and light cruiser HMS *Newcastle* in Magdalena Bay on 20 November. Together, these ships headed south to the Galapagos archipelago, to continue the search for von Spee. In late November, *Niitaka* relieved *Chiyoda* in Manila, while the 2nd Southern Despatch Squadron proceeded to Fiji at the end of November.

The destruction of von Spee’s squadron in December saw Japanese cruiser sorties reduced, but not suspended, as they hunted down German commerce raiders. In February 1915, sailors hastily despatched from the protected cruisers *Otowa* and *Tsushima* assisted British forces in suppressing a mutiny by British Indian Army troops in Singapore. A further 12 Japanese cruiser sorties were conducted in southern patrols throughout the war’s duration, and although the Australian Official History concluded that ‘the most cordial relations prevailed between the visiting Japanese squadrons or ships and the naval authorities in Australia, and the Japanese admirals were supplied with all necessary information’ the Australian government was ‘less than enthusiastically grateful’ for having to rely upon Japanese protection.

From 7 February 1917 the 1st Special Squadron, comprising the cruisers *Yahagi*, *Tsushima*, *Suma*, *Niitaka* and the 2nd Destroyer Flotilla, were based at Singapore. *Tsushima* and *Niitaka* patrolled as far away as the South African coast, while *Yahagi* and *Suma* were ordered to the Indian Ocean. *Yahagi*, the last Japanese ship to protect Australia and New Zealand, patrolled their coasts from May to October 1918.

In total, at least 30 Japanese combatants were committed to these operations. While none of these ships engaged, let alone sank, German warships, their presence in these strategic backwaters provided security for the dominions and colonies, freeing British, Australian and New Zealand warships to other, higher priority operations in more dangerous waters. Notably, however, none of these distant sorties included IJN modern dreadnoughts or semi-dreadnoughts, and only a handful involved even the older battleships.

**The Siberian Expedition**

After the German threat in the Indian and Pacific oceans had passed, the 1917 Bolshevik Revolution brought renewed and unwelcome uncertainty to Japan’s northern flank. The International Intervention which aimed to protect select foreign citizens living in the Russian Far East, to prop up the White Russian regime and to rescue the Czechoslovakian
Lessons Learnt? - How World War I shaped Japanese Naval planning

Corps seeking to escape through Siberia from the collapsed Eastern Front, also provided Tokyo with a pretext to create a buffer between Japan and the emerging Bolshevik state.

In contrast to the other theatres, Japan’s military involvement in the Siberian expedition was essentially an Army affair. But it was the IJN that opened the door, when the 5th Squadron, which comprised the pre-dreadnought battleships *Iwami* and *Asahi*, arrived at Vladivostok in April 1918.

The 4 April violent robbery of a Japanese business in Vladivostok provided the pretext to disembark a six company-strong IJN landing force the next day. Local British, American and French commanders and diplomats sanctioned IJN actions, with 50 British Royal Marines landing from HMS *Suffolk* later the same day.

The IJN presence off the Russian coast grew to include the pre-dreadnoughts *Katori*, *Hizen*, and 12 destroyers. At the end of April, having insisted that its intention had been only to protect Japanese citizens, the IJN handed back control of Vladivostok to the local Soviet. In September, another IJN landing force from the pre-dreadnoughts *Katori* and *Kashima* landed at De Kastri - more than 600nm north of Vladivostok - ostensibly to protect Japanese civilians there, until relieved by an IJA unit from Khabarovsk.

By 1922, Japan had far exceeded the charter set for the international expedition. Tokyo had found sufficient excuses to despatch 70,000 troops, when she had only been asked to provide half of the 24,000 strong force. Long after the American and British troops had withdrawn, Japanese troops remained in Vladivostok and the Russian Far East, some ranging as far as Lake Baikal.

The continued Japanese presence concerned the United States, which suspected Japanese territorial designs on Siberia and the Russian Far East. Subjected to intense diplomatic pressure by the United States and Britain, and facing increasing domestic opposition to the economic and human cost, Japan withdrew its forces in October 1922. By that stage the expedition had cost Japan 5000 dead, and over ¥900 million. Nevertheless, Japanese warships maintained a precautionary presence in and around Vladivostok until 1925.

**Anti-Submarine Warfare in the Mediterranean**

Following the removal of the German cruiser threat in the Indian and Pacific oceans, British pressure mounted for further Japanese contributions to the naval war against the Central Powers. The turning point came with Germany’s February 1917 resumption of unrestricted warfare, which re-invigorated the U-boat campaign. In addition to providing the casus belli for US involvement in the war, the German announcement placed new pressure on the IJN when London invited Tokyo to despatch a destroyer division to the Mediterranean, where German and Austrian submarines ‘were causing havoc with Allied shipping’. In return, France and Britain agreed to recognise Japan’s claim to Shantung and the German Pacific possessions after the war.

In March, the IJN organised the 2nd Special Service Fleet, commanded by Rear Admiral Satō Kz, for this anti-submarine mission. Satō’s force comprised the protected cruiser
Akashi, and eight of the largest and newest Kaba class destroyers. Funded under the 1914 Emergency Naval Expansion Budget, the 655 ton Kaba class were built at several yards to speed their commissioning: All ten were completed by 22 April 1915, less than six months from the first keel laying. A further 12 built for the French navy were known as the Algérien class; Japan’s first and only export of warships to a western navy.

The destroyers were organised into two divisions of four ships each: the 10th Division (Ume, Kusunoki, Kaede and Katsura) and the 11th Division (Kashiwa, Matsu, Sugi, and Sakaki).

En-route to the Mediterranean in March, the 2nd Special Service Fleet swept the Indian Ocean for the German raider Wolf. When Satō’s force reached Malta in April 1917, they were just in time. In a foretaste of the plight Japan was to face 25 years later, the Allied situation in the Mediterranean was in crisis. Peaking at 218,000 tons in April, the Allied shipping losses were so unsustainable, and the shortage of escorts so acute, that the Allies considered both using the longer route around the Cape of Good Hope to avoid the Mediterranean altogether.

Almost immediately, the Japanese ships commenced escorting troop convoys between Marseilles, Taranto and Egypt, and it did not take long before they experienced their first submarine attack. On 3 May, Sakaki, together with Matsu, left Marseille, escorting the 14,000 ton British troopship SS Transylvania bound for Egypt. While steaming in the Gulf of Genoa the next morning, Transylvania was hit amidships by a torpedo fired from the German submarine, U-63.

As Sakaki circled in an unsuccessful attempt to keep the submarine down, a second torpedo hit Transylvania just as Matsu closed to render assistance. Matsu’s mast had clipped one of Transylvania’s boats on its davits as she came alongside, and her captain only avoided the full force of the second torpedo’s explosion by ordering his engines full astern. With the giant troopship sinking, the Japanese ships turned their attention to recovering thousands of her troops and crew members.

Barely a month later, on 11 June, Sakaki sighted the periscope of the Austrian submarine U-27 some 200m off her port beam while patrolling in the Aegean Sea. Sakaki responded quickly, with her forward 4-inch gun firing at the location where the periscope was last sighted. Moments later a torpedo exploded under Sakaki’s bridge, killing 59 and wounding 24 of her 92 crew. Despite losing the forward third of her hull, Sakaki did not sink, and was towed back to harbour by HMS Ribble where she was repaired and later returned to active duty. Meanwhile, Matsu counter-attacked and claimed the Austrian boat sunk.

Despite this loss, the IJN expanded its Mediterranean presence - although not to the extent requested. In June, Akashi was relieved by Izumo with a further four destroyers (the 15th Division, comprising the new destroyers Kashi, Hinoki, Momo and Yanagi) - far fewer than the additional 12 destroyers requested by Britain. Nevertheless, if the RN was disappointed at the quantity of the Japanese response, they were impressed by the
quality. Indeed, the Japanese squadron ‘earned such an excellent reputation for smart shiphandling that the RN eventually turned over two of its destroyers to be manned by Japanese crews for the duration of the war.’ These were the British ‘H class’ (or Acorn class) destroyers Minstrel (renamed Kanran) and Nemesis (Sendan), to which were added two British gunboats - actually converted trawlers - named Tokyo and Saikyo, crewed by sailors from Akashi. Thus, at its peak, Satō’s force numbered 17 hulls.

In 1918, Germany’s Spring Offensive saw troop reinforcements rushed from the Middle East to Marseilles, with the IJN squadron escorting more than 100,000 British troops across the Mediterranean during the critical months of April and May. In the 18 month period until the end of the war, the Japanese destroyers had escorted 787 ships (643 of which were British) convoying 700,000 troops in 348 escort missions, and covering 250,000nm. In achieving this, the destroyers ‘spent 72 per cent of their time at sea, compared with 60 per cent for the British and about 45 for the French and Italian.’ Remarkably, the IJN had maintained this sizeable squadron over a two-year deployment - including 19 months of combat conditions - in an area of operations some 7500nm distant from the closest Japanese naval base.

The main reason Allied losses in the Mediterranean ‘dropped sharply’ after April had more to do with the commencement of convoy operations than the IJN squadron’s arrival. Despite Matsu’s claim, IJN anti-submarine warfare operations did not result in the sinking of any of the 34 German or Austrian submarines then operating in the Mediterranean (although the Allies accounted for 17 of them between January 1917 and the end of the war).

After the 11 November 1918 Armistice, the Japanese squadron remained in European waters until May 1919, helping to supervise the Central Powers’ surrendered fleets. The cruiser Izumo together with the destroyers Hinoki and Yanagi sailed from Malta to Scapa Flow to help guard the surrendered German fleet, and to prepare seven German U-boats as prizes for their journey to Japan.

In the Mediterranean, the destroyers Katsura, Matsu, Sakaki, and Kaede supervised the surrender of German and Austro-Hungarian ships at Brindisi. Nisshin, together with the eight remaining destroyers, sailed to Constantinople in December 1918 to superintend enemy warships there. After returning to Malta, Satō left for England, gathering the remaining Japanese ships on the way. While Ume and Kusunoki patrolled the Adriatic at the end of March, the rest of the squadron together with the seven U-boats returned to Malta, and were joined by Ume and Kusunoki. There, the tender Kwanto serviced the U-boats, before Nisshin and two destroyer flotillas escorted the submarines to Japan, reaching Yokosuka on 18 June 1919. Izumo and the last destroyer detachment returned to Japan on 2 July 1919.
Dreadnought Phoney War

Against the background of this effort, Japan’s dreadnoughts were conspicuously absent from the battlefield. In 1914, the IJN operated ten pre- or semi-dreadnoughts built for, or in, Japan. The IJN also operated seven pre-dreadnoughts - of varying quality - captured from the Russian navy during the 1904-05 war. Between 1913 and 1918, these were joined by eight modern battleships and battle cruisers: the four Kongō class battle cruisers, and the two Fusō class and two Ise class battleships.

Armed with eight 14-inch guns, the Kongō was an improved version of the Royal Navy Lion class design, and were superior in almost every respect to the latest British battlecruiser, Tiger. Kongō commissioned in 1913, followed by Hiei in 1914, then Kirishima and Haruna in 1915. They were joined by the battleships Fusō and Yamashiro (in 1915 and 1917 respectively), and then Ise and Hyōga (in 1917 and 1918) - all armed with twelve 14-inch guns each. Together these new ships brought the IJN strength to eight dreadnoughts by war’s end - a force that compared favourably with Germany’s wartime peak of 19 - and would form the backbone of the 1907 ‘8-8 Fleet’ plan (eight battleships and eight armoured cruisers - later battle cruisers - all under eight years old).

The capital ships’ contribution to the Allied cause, however, was minimal. Aside from a brief late-August 1914 sortie by Kongō (accompanied by the semi-dreadnought Satsuma) to Tsingtau and Midway Island, Japan’s capital ships were largely confined to domestic Japanese waters: a highlight for Hiei was a ten day patrol off the coast of China together with Haruna and Kirishima. Postwar claims that Haruna struck a mine (purportedly laid by the German raider Wolf) in the South Pacific in 1917 are not supported by Japanese language texts, nor is there evidence that Japan’s dreadnoughts operated so far south.

Throughout the war Japanese capital ships were frequently placed into reserve, or dock for minor upgrades, or otherwise engaged in mundane tasks. In mid-1918, the battle cruiser Kirishima ferried the Prince of Connaught to Canada after he had presented Emperor Taishō with a British Army Field Marshal’s baton in a final, but unsuccessful, attempt to encourage direct Army commitment to the war against Germany - such was the level of London’s desperation.

One reason for the relative absence of the Japanese capital ships was that they were intended for operations in waters close to Japan, not trans-oceanic operations, and their designs therefore emphasised armament and armour over bunkerage. Once it became obvious that von Spee’s armoured cruisers had escaped from the Pacific, a further factor was the absence of targets worthy of their attention.

This did not prevent the RN from seeking more Japanese support. The IJN declined British requests in September 1914 for a battleship division to be sent, at British expense, to the Dardanelles. Japan similarly politely declined two more specific requests from the British Admiralty in late-1917 to purchase - or at least have Japan deploy to British waters - two Kongō class battle cruisers as part of a plan ‘to correct the approaching imbalance’ with Germany in battle cruiser forces. Although several reasons were put forward by
the Japanese government, the key concern was the potential domestic Japanese reaction to any diminution of the fleet ‘which had been laboriously brought into being under many difficulties’. Despite these disappointments, ‘relations between the two fleets during operations were generally cordial’.

This reluctance to employ its own battleships did not prevent the IJN from learning as much as it could as to their potential employment through assigning liaison officers to the Royal Navy. The observer’s presence leveraged the precedent of RN observers serving aboard Admiral Togo’s fleet during the Russo-Japanese War 1904-05: Captain WC Pakenham - Britain’s Naval Attaché to Japan - spent the entire 14 months of that war aboard Japanese ships ‘not daring to set foot ashore for fear of being left behind.’ Three Japanese officers served aboard Jellicoe’s Grand Fleet at the Battle of Jutland, including one who was killed when Queen Mary exploded.

Similar accidents happened at home. On 14 January 1917, a magazine explosion sank the battle cruiser Tsukuba in Yokosuka, resulting in the loss of 156 men, including her captain. Eighteen months later (12 July 1918) a similar fate befell the semi-dreadnought Kawachi in Japan’s inland sea, with the loss of 621 officers and men.

Although Japanese dreadnoughts had not participated in any significant naval action, the Battle of Jutland had a profound effect on IJN thinking. The Japanese observers’ detailed and voluminous reports on the battle ‘served as the basis for years of study by the Naval General Staff and the Staff College’. Indecisive though it was, Jutland reaffirmed the faith of the IJN in the battleship as the sine qua non of naval warfare.

### Conclusion

Japan’s contributions to the Allied cause were considerable, but not commensurate with the full range of its military capabilities. That is perhaps not surprising given that, alliance obligations to one side, at no stage after the fall of Tsingtau on 7 November 1914 could the Central Powers directly threaten Japan’s immediate interests.

The IJA commitment was limited to campaigns that were unambiguously in Japan’s self-interest: a reinforced division (the 18th) to capture Tsingtau, and a peak of 70,000 troops in the Russian Far East. The IJN commitment was greater, and its presence was more global. In addition to leading the way for the capture of Tsingtau and the occupation of the Russian Far East, the IJN had occupied Germany’s north Pacific colonies, and scoured the Indian and Pacific oceans for von Spee’s cruisers and German commerce raiders. And, from April 1917, it had deployed a large anti-submarine warfare force to escort Allied convoys across the Mediterranean for 18 months. Never before, and not since, have Japanese warships conducted operations across such a broad area.

Nevertheless, IJN contributions remained selective. Most notably its dreadnoughts were conspicuously absent, and although it committed most of its cruisers and larger destroyers to operations in support of allied aims, they did not engage any major Central Power warships. Aside from the destruction of the German destroyers and torpedo boats,
the forced scuttling of the Austrian cruiser *Kaiserin Elisabeth* at Tsingtau and the German *Planet* at Yap, the IJN did not account for any enemy warships.

Moreover, IJN efforts remained driven by self-interest. In addition to being granted a mandate over the German Pacific territories - used as key naval bases in Japan’s next war - Japan received seven German U-boats (*U-125*, *U-46*, *U-55*, *UC-90*, *UC-99*, *UB-125* and *UB-143*) and a number of German vessels as war prizes, including the German dreadnoughts *Nassau* and *Oldenburg*. While the surface vessels were mostly sold off for scrap, the U-boats provided the IJN with a crucial leg-up in developing its own submarine program: during WWI, six of its 14 submarines were obsolete *Holland* boats, and only two, French-built submarines, received from mid-1917, were suitable for anything beyond coastal operations.

The IJN perspective was that these rewards were small compensation for the humiliations that followed the war’s end. In 1919, Britain opposed Japan’s racial equality proposal at the Versailles Peace Conference. Then in 1922, Japan was forced to return the Shantung Concession, and abandoned its tenuous hold on the Russian Far East. That same year, London accepted as dispensable the Anglo-Japan Alliance which Washington demanded dissolved as a pre-requisite for a naval limits treaty: Britain annulled the alliance and declined to support Japan’s demand for a 10:10:7 battleship ratio at the Washington Naval Conference.

That Japan could not have afforded to maintain a high ratio of strength was irrelevant to the generation of officers affected by the ramifications of the Washington Naval Treaty, and the impending Great Depression. By 1921 the Y502 million IJN budget accounted for nearly a third of government spending - four years later it received less than half that amount. Two new battleships under construction at the time were terminated; had they been completed they would have been the most powerful battleships of their day.

IJN manning too was slashed. Around 1700 officers and warrant officers paid off, including nine out of ten vice admirals whose generation had experienced the IJN ascendance in the 1894-95 Sino-Japanese War, the 1904-05 Russo-Japanese War, and WWI. Recruitment was similarly curtailed; the Naval Academy’s 1922 intake was less than one-fifth that of 1921. While other navies went through a similar pain, for the IJN leadership the cuts were especially humiliating - such was its reward for bearing the burden of Japan’s cooperation with the Allies.

With their career paths truncated, and having watched their fleet emasculated, the extent of ‘Treaty shock’ felt by the IJN should not be underestimated. These sustained physical and psychological blows undermined the standing of IJN moderates while facilitating the rise of firebrands. By the 1930s, the majority of IJN officers believed Japan had erred in accepting the 60 per cent ratio. At the same time, IJN strategic circumstances were starker than ever.

Ostensibly the capture of Tsingtau and the destruction of the German Pacific Squadron (and, unintentionally, that of the Austro-Hungarian Empire) improved Japan’s security
position. Indeed, Japan was so confident it had overcome its nearby naval rivals that in 1916 it returned to the Russian navy two pre-dreadnoughts and one cruiser taken as prizes in the 1904-05 war. In absolute terms, the IJN had entered WWI as the world’s fourth most powerful navy, and emerged, four years later as the third most powerful - a ranking it would never exceed, despite its initial string of victories in the next war.

But in removing the Imperial German Navy from Tsingtau, Japan’s strategic circumstances had in many ways worsened. Compounding the 1895 defeat of the Chinese navy, the 1905 subjugation of Russia’s, and the chaos that followed the 1917 Bolshevik Revolution, the Anglo-Japan Alliance was left sans raison d’être. With the Germans gone, the British base at nearby Weihaiwei lost its relevance, and by 1923 Singapore was identified as the main RN base in the Far East.

Replacing these lesser threats, the IJN now saw the potential for conflict with the first- and second-ranked American and British navies as its new security paradigm. From 1907 onwards the IJN had quietly recognised the US Navy as its ‘hypothetical enemy’, but as the years passed this specific distinction intended as budgetary tool to prepare the IJN for a ‘worst case’ scenario, increasingly transitioned to become the ‘most likely scenario’. For Japan, the most likely confrontation was seen as differences with the United States over China, a situation aggravated as Japan’s mandate over the former German north Pacific colonies saw the IJN footprint straddle, and therefore threaten, the sea lanes between Hawaii, Guam and the Philippines.

In the postwar years, the IJN sought to apply its WWI experience - which had been gained at relatively little cost - to mitigate these perceived new threats. The IJN consolidation and development of its early lead in the employment of naval airpower culminated in the first six months in the Pacific theatre in WWII, as Japanese carrier groups roamed at will across the western Pacific and eastern Indian oceans. Meanwhile, land-based bombers sank the RN battleship Prince of Wales and battle cruiser Repulse off the Malay coast. In this first phase, Japanese naval landing forces target the seizure of airfields to extend the reach of IJN airpower. The most spectacular of these operations was the January 1942 landing and parachute assault on an airfield at Menado, in the Dutch East Indies, in what was only history’s second combined parachute and amphibious assault.

Indeed, in 1941 the IJN lead in landing operations supported the rapid Japanese advance into Southeast Asia and the South West Pacific. For the first six months, only the landing at Wake Island came close to failure. This was the only IJN amphibious assault operation of the war, with the remainder of its actions conducted against lightly defended, or undefended coastlines in Malaya, the Philippines, the Dutch East Indies, as well as in Papua and New Guinea. The hallmarks of these operations were the establishment of air superiority (if not supremacy) combined with the use of surface units to establish control of the sea, and the landing of forces across such a broad area and with such rapidity as to consistently outflank Allied defences.
But IJN doctrinal, and indeed a national strategic, fixation with the concept of a short, decisive war - which was all the Japanese economy could realistically afford - meant it lacked depth, and did not prepare for a total war. This frugality even extended to the battleship fleet: when the war broke out, eight of the eventual 12 battleships were the same hulls constructed and so carefully husbanded during WWI. Although they had been modernised, and battle cruisers upgraded to battleship status, the IJN added only two further battleships before the Washington Naval Treaty took effect (the 16-inch Nagato and Mutsu), and two more after it expired (the 18-inch super-battleships Yamato and Musashi).

As far as doctrine was concerned, the Battle of Jutland invalidated neither the precept of the decisive naval battle, nor the battleship’s primary role in it. Moreover, the battle confirmed the value of interior lines of communication, and the ‘fleet-in-being’ strategy for the weaker side. In the years that followed, doctrine shifted the location for its anticipated ‘decisive battle’ against the US Navy further and further away from Japan:

From about 1910 through the 1920s, the theatre had been near the Ryukyus; in the early 1930s, just east of them; in the mid-1930s, somewhere on a line between the Bonins and the northern Marianas; and by 1940, it was placed as far east as the Marshall Islands. But little attention was paid to the fleet train, oilers, supply ships, tugs, repair ships, and so on, required by the distances involved in this eastward shift.

Its husbanding of dreadnoughts in domestic waters throughout WWI proved a telling prophecy of how the IJN fought the next war. Although it planned for and sought a decisive surface battle, the IJN was unable to bring one about on suitable terms, and so the concept proved as chimerical as it had been for the British and German navies in WWI. Instead, the IJN employed its battleships defensively, as a fleet-in-being, and when it did commit them to battle it proved to be too late.

While this situation was not unique, Japan’s limited economy meant the IJN concentrated its efforts on trying to maintain capital ship parity with the US Navy and RN, at the expense of developing a more balanced force capable of sustained and broader range of naval operations across lengthy sea lanes. Significantly, the IJN overlooked both the offensive potential of its own submarines, and largely ignored the need for defensive anti-submarine warfare to protect against the enemy’s. In the Pacific theatre, Japan’s 187 submarines sank only 171 vessels between them, while Japan’s merchant marine - upon which the island nation was totally dependent for its supply of raw materials - was decimated by a relentless US submarine campaign of maritime asphyxiation.

By 1942, Japanese merchant shipping losses outstripped production of new ships, but not until November 1943 did the IJN establish its Grand Escort Command Headquarters: even then, it proved to be a case of too little, too late. Ignoring its WWI experience, the IJN had too few destroyers to allocate to such ‘secondary duties’ as convoy escort - the same reason the IJN had cited in April 1917 when it could not meet a British request for an additional 12 destroyers for anti-submarine warfare operations in the Mediterranean.
In the interwar period, the IJN prioritised battleship construction literally at the expense of frigates and corvettes, and had under-invested in the development of anti-submarine warfare weapons, such as depth charges, sonar or radar.

By the end of WWII, the Allies had accounted for nine out of every ten Japanese merchant ships over 500 tons, with submarines accounting for 60 per cent of the sinkings. Illustrating the extent to which the hunted became the hunter, for every US submarine sunk by Japanese warships, US submarines accounted for two Japanese warships. Moreover, those figures do not include those damaged or disabled by US submarines, or sunk by British and Dutch ones. Imagine if the Allied anti-submarine warfare effort had permitted the nearly 800 U-boats destroyed in the war to achieve a similar exchange ratio.

While other navies made similar mistakes in trying to draw the right conclusions from WWI, these were mistakes that the IJN - as the guardian of a maritime nation - was perhaps least well-placed to afford.

Endnotes

1 In World War II, the IJN operated largely with the confines of the western and south-western Pacific Ocean, with only one major surface fleet sortie into the eastern Indian Ocean. Submarines conducted blockade runner supply runs to Europe, but in doing so actively avoided seeking combat.
5 HP Frei, Japan’s Southward Advance and Australia, Melbourne University Press, Melbourne, 1991, p. 89. In truth New Zealand did not have a dreadnought - although HMS New Zealand was paid for by New Zealand, it belonged to the RN.
6 Royal Navy Naval Staff, Naval Staff Monographs (Historical), Volume V: The Eastern Squadrons, 1914, pp. 46, 48, 49 and 52.
7 Royal Navy Naval Staff, Naval Staff Monographs (Historical), Volume V: The Eastern Squadrons, 1914, p. 49.
9 Royal Navy Naval Staff, Naval Staff Monographs (Historical), Volume V: The Eastern Squadrons, 1914, pp. 51-52.
10 Kaigun Hōjutsushi Kankōkai, Kaigun Hōjutsushi [Navy Gunnery Branch History], Tokyo, 1975, p. 493.
The War at Sea: 1914-18

15 Burdick, *The Japanese Siege of Tsingtau*, pp. 76, 118; Taga, ‘Wakamiya no Chintao Kôgeki’, pp. 172-173; and Peattie, *Sunburst: The Rise of Japanese Naval Air Power, 1909-1941*, p. 7. Burdick places the first Japanese air attack on shipping as being on 27 September, but, only citing German sources, does not make it clear whether that action involved only IJN aircraft, or whether IJA aircraft might also have participated.


20 Burdick, *The Japanese Siege of Tsingtau*, pp. 80, 222n. Suwo was formerly the Russian *Pobjeda*, Iwami the Drel, Tango the Poltava, Okinoshima the Apraxin, and Mishima the Senyavin.


The Second Japanese South Sea Squadron left Sasebo for Rabaul, which was then intended to be their base for further operations. … But Admiral Jerram … proposed that Admiral Tsuchiya [2nd Japanese South Sea Squadron] should cooperate with him west of longitude 1400 … and that the First Squadron should work with Admiral Patey to the eastward of that meridian.
Lessons Learnt? - How World War I shaped Japanese Naval planning

31 S Asada, From Mahan to Pearl Harbor, Naval Institute Press, Annapolis, 2006, p. 51.
33 Frei, Japan’s Southward Advance and Australia, pp. 96-97.
37 Royal Navy Naval Staff, Naval Staff Monographs (Historical), Volume V: The Eastern Squadrons, 1914, p. 66.
39 Royal Navy Naval Staff, Naval Staff Monographs (Historical), Volume V: The Eastern Squadrons, 1914, pp. 121, 166.
41 The light cruisers Chikuma and Yahagi cruised off northern Queensland between December 1914 and January 1915. In April, 1915, the cruiser Nisshin visited Rabaul and Madang, while between May and July, the training ships Aso and Sōya, visited Australian ports between Fremantle and Rabaul. In May-July, 1916, Azuma and Iwate did the same between Fremantle and Brisbane. In March 1917 three cruisers and eight destroyers - en route to the Mediterranean - escorted Allied troopships across the Indian Ocean. Between May and June 1917, the cruisers Idzumo, Nisshin, and Kasuga escorted cargo vessels between Fremantle and Colombo. For most of 1917, the light cruiser Hirado and her sister-ship Chikuma were, in the absence of Australian ships serving elsewhere, employed directly in the defence of Australia, remaining in or near Australian waters until November and December respectively. The cruisers Nisshinō, Kasugāō and Yahagi also patrolled the Western Australia coast at intervals during 1917. In March 1917, the light cruiser Yahagi visited Fremantle, and in May-October assisted Australian ships in patrolling the north-eastern coasts of the continent and the islands northwards. Also from mid-August to the beginning of October the cruiser Nisshin patrolled off Fremantle. Jose, The Royal Australian Navy 1914-1918, pp. 340-341. This naturally extended to logistical support, such as when in May 1917 the cruiser Hirado was docked a Cockatoo Island. P Dennis, J Grey, E Morris & R Prior, The Oxford Companion to Australian Military History, Oxford University Press, Melbourne, 1995, p. 322.
42 Frei, Japan’s Southward Advance and Australia, p. 98.
47 Kankōkai, Kaigun Hōjutsushi, p. 495.
48 DC Evans and MR Peattie, Kaigun: Strategy, Tactics, and Technology in the Imperial Japanese Navy
The War at Sea: 1914-18


49 M Nomura, (ed), Nihon Kaigun [The Japanese Navy], Kawade Shobō Shinsha, Tokyo, 1997, p. 95. Also Frei, Japan’s Southward Advance and Australia, p. 98.

50 Sometimes referred to in English as a squadron, I have translated from the Japanese Daini Tokumu Kantai (第二特務艦隊). Sakamoto & Fukukawa, Nihon Kaigun Hensei, p. 161.


54 Kataoka, Nihon Kaigun Chichōkai Enshōki, pp. 122-123.


62 Massie, Castles of Steel, p. 21; Asada, From Mahan to Pearl Harbor, p. 49.


64 For example, (albeit originally a German-language text) Jentschura (et al), Warships of the Imperial Japanese Navy, p. 35. Most notably, the incident is not recorded in the chapter on Haruna or its Tabulated Record of Movement contained in Kawajima, Shashin: Nihon Gunkan - Senkan II [Warships of Japan in Photographs – Battleships II], Volume 2, Kojinsha, Tokyo, 1995, pp. 122-178.


67 On 26 August 1917, the Admiralty requested (through the War Cabinet) to have the Foreign Office sound out the Japanese government on the sale. After the Japanese government declined on 5 October, the Admiralty then suggested that Japan be invited to attach two of its battle cruisers to the Grand Fleet. The Japanese politely refused this request too (on 14 November). Marder, From the Dreadnought to Scapa Flow, Volume IV (1917: The Year of Crisis), pp. 43-44, 292n. According to Nish, the Admiralty considered proposing that the battle cruisers be exchanged for two RN battleships. Nish, Alliance in Decline: A Study in Anglo-Japanese Relations 1908-23, pp. 226-227.
68 Foreign Secretary Balfour to the British Ambassador in Tokyo, on 15 November, repeated in Marder, *From the Dreadnought to Scapa Flow*, Volume V (Victory and Aftermath), p. 44. Evans and Peattie summarised that Tokyo had ‘refused on the grounds that the Japanese public, which had paid for these warships, would not wish them to leave Japanese territorial waters.’ Evans & Peattie, *Kaigun: Strategy, Tactics, and Technology in the Imperial Japanese Navy 1887-1941*, pp. 164-165.


71 One theory has it that a sailor, having been scolded by a superior, suicided by starting a fire in one of the ship’s magazines, see Kimata, *Nihon Senkan Senshi*, p. 59.

72 In Kawachi’s case, the cause was attributed to faulty ammunition. Kimata, *Nihon Senkan Senshi*, p. 59. Other accidents claimed a further two warships: the protected cruiser *Kasagi*, serving as a training ship, was wrecked in a storm in Tsugaru Strait on 13 August 1916; and the protected cruiser *Otowa* ran aground and was wrecked near Cape Daio nearly on 1 August 1917.


76 In 1921, the IJN budget peaked at 502 million Yen, representing 31.6 per cent of government spending, but by 1925 it had fallen to 227 million, and 14.4 per cent. Asada, *From Mahan to Pearl Harbor*, p. 297.

77 To be named *Tosa* and *Kaga*. The former was scuttled to comply with the Washington Naval Treaty, while the latter was converted to become the aircraft carrier *Kaga*, which took part in the Pearl Harbor raid, and was later sunk at the Battle of Midway.

78 Asada, *From Mahan to Pearl Harbor*, p. 100.


80 In June 1919, the Admiralty saw Hong Kong as ‘the most suitable base from which to conduct an economic blockade of Japan’. Marder, *From the Dreadnought to Scapa Flow*, p. 237.

81 Asada, *From Mahan to Pearl Harbor*, pp. 47-48. In the United States, the sentiment was reciprocated. Marder, *From the Dreadnought to Scapa Flow*, p. 229.

82 The first had been Nazi Germany’s capture of Crete, an operation that had involved the German Luftwaffe, Army and Kriegsmarine.

83 The IJN amphibious assault against Midway was cancelled following the loss of all four fleet carriers committed to the sea battle of the same name.

84 Even then, the IJN was able to add two new battleships to its fleet after 1922, the ill-fated *Yamato* and *Musashi*. The 16-inch *Nagato* and *Mutsu* were built between 1917 and 1921. The other eight battleships in WWII were the four *Kongô* class 14-inch battle cruisers (reclassified as battleships) and the two *Fusō* class and two *Ise* class 14-inch battleships.


The War at Sea: 1914-18


88 Parillo, *The Japanese Merchant Marine in World War II*, pp. 205, 207. In return for 44 of their number lost, US submarines sank 98 Japanese warships, including 38 destroyers and 38 corvettes, one battleship, four fleet aircraft carriers four escort carriers, a seaplane carrier, three heavy cruisers, nine light cruisers, and 38 destroyers - from Jentschura (et al), *Warships of the Imperial Japanese Navy*, passim. By way of comparison, the RN lost two battleships, three aircraft carriers, six cruisers and 46 destroyers or frigates to almost seven times as many German U-boats in a more protracted submarine warfare campaign.
Compared with an analysis of the German, British, French, or even Japanese operations at sea in World War I (WWI), the Russian naval contribution to the allied war effort continues to be overlooked. Perhaps, one of the main reasons behind that was the extent of Russian naval campaigns against the German and the Ottoman navies (the Black Sea only) in the Baltic and Black and White seas and the Indian Ocean. Indeed, Russian naval operations were smaller in scale compared with the naval confrontation between the British and German navies in the North Sea and the Atlantic Ocean. Still, the Imperial Russian Navy (later, the Russian Navy) operations forced the Germans and allies to respond, impacting on the number of German assets facing the allied forces in the North Sea and in the Mediterranean.

The Russo-Japanese War 1904-05 was a catastrophe for Russia, which suffered significant defeats on land and at sea. Russian naval power in the Pacific and Baltic theatres was dramatically weakened. The surrender of Port Arthur forced the Russians to sink the remaining units of the 1st Pacific Squadron, leaving the Pacific theatre with a few operational cruisers, several destroyers and submarines, all based in Vladivostok. The bulk of the operational element of the Russian Baltic Fleet (RBF), which formed the 2nd and 3rd Pacific Squadrons dispatched to the Far East as reinforcements to Russian forces in Port Arthur and Vladivostok, was lost in the single Battle of Tsushima. A total of 69 warships and auxiliaries and 14,639 seamen were lost.\(^1\)

The outcome of the war with Japan saw a dramatic shift in Russia’s capacity to balance against maritime threats in its main theatres. At the turn of the 20th century, the Russian Navy ranked third in the world in terms of numerical strength and warfighting capabilities, inferior only to the naval forces of Britain and France.\(^2\) Following the Russo-Japanese war, the weakened Russian Navy had in its order of battle 11 pre-dreadnought battleships (three in the Baltic and eight in the Black Sea), 10 cruisers and 126 destroyers, making it the fifth largest fighting force.\(^3\) With the exception of the Black Sea Fleet, Russian naval forces in the other two theatres, particularly the Baltic, were no longer able to challenge the navies of major maritime powers.

Adding to that, the navy was suffering from the politicisation of its seamen and officer corps, where a number of high profile mutinies resulted in comprehensive police measures, which shook the force in 1905 during what is called the First Russian Revolution (1905-07). The most significant episodes included the mutiny on the battleship *Knyaz Potemkin-Tavricheskiy* off Odessa (Black Sea Fleet); the uprising in Sevastopol in
October-November 1905 when several warships, auxiliaries and shore-based facilities were seized by rebels (Black Sea Fleet); and the mutiny in the Libava naval base (Baltic Fleet). These violent actions against the ruling regime had a detrimental effect not just on the moral of Russian naval personnel but also on the state of combat readiness of certain naval units. Finally, constant reshuffling within the newly formed Maritime Ministry, partially driven by conflicting interests on how to manage the reform of Russian sea power, and partially by the continuous political fallout of the loss to Japan, added to the challenge of rebuilding the navy.

One of the major problems for Russian naval strategists prior to WWI was the absence of a clearly articulated priority in national strategy over which maritime vectors/theatres should be given prominence based on both threat perception and force development. The complex geography of the Russian Empire and pressing economic and geostrategic interests required the nation to develop and maintain two independent fleets/navies: the Baltic and Black Sea in support of two principal corresponding maritime vectors. In the late 19th century, another maritime vector - the Pacific - became prominent. However, after suffering a humiliating defeat at the hand of Japan and by recognising that the clash between Germany and France (Russia’s military ally) and possibly the British Empire was becoming a reality, made the European maritime vectors a priority. For example, in 1908, Captain 2nd Rank Aleksandr Kolchak wrote in *Morskoi Sbornik* that despite the strategic necessity for Russia to have access to the Pacific - in his words, ‘this Great Mediterranean Sea of the future’ - it was inexpedient to throw state resources into the re-building of the fleet at a time when Russia was facing threats in the Black and Baltic theatres. Captain 2nd Rank M Rimskiy-Korsakov, also in 1908, warned that the prospect of rebuilding Russia’s naval power in the Pacific would likely cause another conflict with Japan, because the Japanese would not allow Russia to restore its naval strength there. Rimskiy-Korsakov nevertheless argued that substantial naval capabilities should be developed in the Far East, rather than relying on ground forces, since they were unable to restrain the Japanese offensive during the Russo-Japanese War. In his view, ‘without the naval force…we will be unable to hold on the shores of the Pacific Ocean!’

A close analysis of the evolving political-military developments in Europe combined with intensive intelligence gathering efforts indicated to Russia that a major conflict in Europe was inevitable. Kolchak noted, ‘Back in 1907 we [General Naval Staff] have come to the conclusion that the major war was inevitable…the beginning of which we identified to be 1915.’ Russian strategic and defence planning was also considering future tasks and missions for the navy in the context of the national approach to the mounting political-military crisis in Europe. In mid-1909, the Special Council under the chairmanship of Prime Minister Pyotr Stopylin identified the following strategic objectives for all three maritime vectors:
• Baltic Sea - counter-amphibious operations and maritime defence of St Petersburg
• Black Sea - sea control through maintaining a superior naval force to the Turkish Navy
• Pacific - limited scale maritime defence through area sea denial.

Urgent measures had to be undertaken to prepare the navy for another war, and to close the emerged capability gap, which exposed Russia to a potential maritime attack as early as 1911-12, especially in the Baltic theatre. The order of battle of the Russian Navy over the period 1906 to 1911 comprised platforms built in late 1880s-early 1900s and did not reflect emerging naval technologies. As a result, the navy placed an emphasis on acquiring platforms that would allow it to achieve a qualitative leap, not retaining a quantitative status quo.

In 1909 the imperial government approved the so-called minor shipbuilding program, which was supposed to see the construction of seven battleships, two cruisers and nine destroyers by 1912. The follow-on major shipbuilding program (1912) called for a construction of four extra battleships, eight cruisers, 76 destroyers and torpedo-boats and 24 submarines over five years. Compared with similar efforts made by the German or British empires in the prewar period, the Russian naval construction program was rather modest and reflected the state of national economy of that time; difficulties of the naval lobby to secure support in the Duma (Russian Parliament); and within the Russian army hierarchy.

In the years before WWI, Russian shipbuilders launched a series of new generation surface combatants and submarines. For example, on 4 September 1914 the navy commissioned the 1260 tonne Novik destroyer - the lead unit in a large series of new destroyers that saw active service in WWI and beyond. Built by the Putilov shipyard in St Petersburg, Novik carried four 102-mm guns, four two-tube torpedo launchers and could sustain a hot pursuit speed of 36.2 knots, thus making it the fastest and one of the most heavily armed destroyers of the age. The first line of Russian-designed Sevastopol class dreadnoughts - Gangut, Petropavlovsk, Poltava and Sevastopol - were in the final stages of construction. These 23,000 tonne warships carried twelve 305-mm guns mounted in four three-gun turrets, sixteen 120-mm guns, and had a full speed of 23 knots. A total of seven dreadnoughts were built with the first units coming into service after the war began. Prior to WWI Russia was spending 30.7 per cent of its entire defence budget, a total of 5.9 per cent of the national annual budget, on naval affairs. By 1 July 1914, the Russian Navy had 478 operational warships and auxiliaries; 17 units were in the final stages of being fitted out and an additional 63 were either launched or under construction.

Russian defence planners faced a new grim reality. In the Baltic, what remained of the RBF was significantly outnumbered by the far superior German force. Despite the fact that the major striking elements of the German High Seas Fleet was pre-positioned in
the North Sea facing the Royal Navy’s Grand Fleet, the Germans had little logistical problems in massing their strike assets in the Baltic, using the Kiel Canal, should the operational need require it. Nevertheless, Russian naval forces in the Baltic were still expected to play a major role in any future conflict with Germany by protecting the maritime flank of the north-western front (6th Army) and by defending the capital St Petersburg as the nation’s strategic centre of gravity. However, the fear of sustaining unacceptable losses at the hands of a superior German fleet forced the Russians to adjust their operational plans and limit their ambitions.

Since the Crimean campaign of 1854-56, the Russian political and military elite was almost certainly paranoid concerning a possible amphibious assault on St Petersburg. As a result, the principal strategic task of the RBF since late 1880s was the maritime defence of the Gulf of Finland as the only maritime route to the Russian capital. Prior to WWI, one of the main conceptual planning breakthroughs of the Russian Navy was to conduct a layered maritime defensive engagement around what was called a ‘mine-artillery position’ [minno-artilleriyskaya pozitsiya] - a strategic littoral area protected by extensive minefields and surface, sub-surface and (later) aerial strike groups. The essence of a battle near a mine-artillery position was to defeat superior enemy forces through coordinated multi-vectorial engagements of different surface and sub-surface elements supported by coastal artillery and aerial support. In other words, the layered defence of a mine-artillery position was to engage enemy forces in an (ideally) decisive battle as part of the defence of a core area or a strategic centre of gravity. The operational concept of achieving success at sea through defensive engagement along the protected barrier became the main driving force of war planning in the Baltic, and later in other Russian maritime theatres.

In 1910, Russian war plans in the Baltic called for the creation of the mine-artillery position in the eastern sector of the Gulf of Finland with the aim of stopping an advancing enemy force for up to 12-14 days. Main forces involved in this defence operation included a squadron of surface ships (pre-dreadnought battleships Tsesarevich and Slava, armoured cruiser Riurik and three light cruisers Admiral Makarov, Bogatyr and Oleg); 1st and 2nd Mine divisions [minnaya diviziya] of destroyers and torpedo boats; a submarine brigade and support units. On 17 June 1912, Emperor Nikolai II approved a revision to Operations of Naval Forces of the Baltic Sea in Case of a European War. According to this plan, the operational element of the Baltic Fleet was tasked to create and defend two main protective maritime barriers: the ‘central mine-artillery position’ between Nargen Island and the Porkala udd Peninsula, and the supporting flanking Scurries position (Gulf of Finland). The main defensive position was based on a heavily mined area 15 miles long and three miles wide supported by over 40 warships and auxiliaries, and 12 coastal artillery batteries. The total operational depth of this strategic defensive operation extended 400km; the width of the maritime front along the two defensive barriers was about 70km. This layout allowed a guaranteed maritime defence of St Petersburg area for about two weeks, which was sufficient to mobilise and deploy the 6th Army tasked with defending the capital.
Russian naval plans in the Baltic also envisaged limited interdiction operations, especially against critical sea lines of communication between Germany and Sweden, offensive mine laying operations in areas of heavy maritime traffic, and near enemy bases. However, these operations were planned to be limited in scale and did not call for a massing of forces, let alone the offensive deployment of operational battleships or new dreadnoughts. Despite alternative propositions presented by senior operational commanders such as Rear-Admiral Nikolai [von] Essen, who called for forward sea denial operations in the central and south Baltic, the main emphasis was placed on predominantly defensive engagements. The strategic initiative was given to Germany even prior to the war and no plans were developed in case the enemy was passive in the theatre.

Contrary to the RBF, the Russian Black Sea Fleet (RBSF) did not take any casualties during the Russo-Japanese War. Having being restrained by the prohibition of passage through the Turkish Straits, Russia could not draw on any units from its Black Sea Fleet, which allowed an effective preservation of the relatively balanced operational force post-1905. Long-standing war planning and operational strategy for the Black Sea theatre envisaged a different approach to operations in the Baltic. The overall strategic rationale was driven by the intent to secure and maintain a favourable maritime regime, through establishing effective sea control, aiming to achieve a strategic penetration of the Mediterranean maritime theatre by securing the Straits and by capturing Constantinople (Istanbul). The goal - an amphibious operation against Turkey in the Bosporus Strait - had dominated Russian war planning for the Black Sea theatre since the late 1880s. Whilst it was considered to be a matter of national importance (securing uninterrupted access to the Mediterranean and the Middle East, including ensuring a Russian protectorate over the Holy Land in Palestine - the so-called Eastern Question), the Russians did not plan to annex the Straits or Constantinople. The prewar naval strategy, elaborated in 1912, described Russia’s ambitions regarding the Turkish Straits as the most immediate strategic task, which was to be executed by 1917-18 with a follow up deployment of a substantial battle force (12 dreadnoughts and support forces) in the Sea of Egei. In particular, the French seaport of Bizerte was considered to become the principal naval base of Russia’s Mediterranean battle squadron.

On 18 February 1908, Tsar Nikolai II approved the RBSF war plan, which was subsequently amended on 8 June, with the strategic goal of establishing sea control over the northwestern sector of the Black Sea and achieving sea command over the Sea of Azov. The Fleet was preparing to face a combined naval force of Turkey, Germany, Austro-Hungary and Romania. Among key operational tasks were the maritime blockade of the Bosporus Strait, the mouth of the Danube River and the port of Sulina (Romania) by way of intensive mine-laying and submarine operations; offensive operations near the strait would be supported by the Fleet’s principal battle group (3-4 battleships, one cruiser, four submarines and destroyers). The amphibious operation in the Strait was postponed indefinitely.
The Russians were increasingly concerned with the ambitions of the Turkish government to achieve a qualitative leap in its naval development by acquiring two dreadnoughts from Britain and by purchasing another dreadnought, which the British were building for Brazil. Russia invested considerable diplomatic efforts to persuade London to cancel the deal. Another major concern was the possibility of the deployment of one or two battle groups (up to six dreadnoughts) of the Austro-Hungarian Navy to the Black Sea and their joint operations with Turkish and, possibly, German forces. Due to various political considerations and the problems with logistics (basing and support of battle groups in the theatre), the idea did not eventuate. Still, the Russian naval command was entertaining such a possibility until as late as October 1914, when hostilities in Europe were well under way.26

Just months before the outbreak of fighting in Europe, Russian war planning for the Black Sea theatre underwent some changes. As for the Baltic, emphasis was given to defending core areas of the Russian coast (the Crimean Peninsula, the seaport of Odessa and the Kerch Strait) and preparing for a decisive battle with enemy forces on a layered mine-artillery position near the main naval base of Sevastopol.27 At the same time, the RBSF was given more ambitious operational tasks compared with its Baltic counterpart. Russian wartime operations called for the naval blockade of the Turkish coast, aggressive interdiction operations and engagement of enemy forces in forward areas, thus emphasising offensive littoral warfare near enemy shores.

The Russian government undertook urgent measures to develop relations with allied navies. On 3 July 1912, Russia and France signed a joint maritime convention, which called for the coordinated development and implementation of strategic and operational plans; annual meetings of chiefs of staff; intelligence sharing, and even possible joint operations in the Mediterranean.28 The development of similar relations with the Royal Navy proved to be more challenging and by the beginning of war no formal agreement was reached. The exchange of naval visits in late 1913-14 assisted in improving some interoperability between Russian, French and British navies. However, lateness in formalising relations between the allied navies combined with the geographical isolation of Russian maritime theatres, effectively curtailed joint operations during the war. Overall, Russia was preparing for a defensive war at sea as a stand-alone coalition partner, concerned with securing the maritime flanks of a vast continental theatre of war and with limited coordination with its Entente allies.

Russian War at Sea Begins

For Russia, the war at sea in 1914 did not involve all maritime theatres simultaneously. On 12 July 1914, just a week prior to Germany’s formal declaration of war on Russia, the combat readiness of the Baltic and Black Sea fleets was increased.29 In the first few months of WWI, Russian naval forces in both Baltic and Black Sea theatres were busy establishing defensive barriers, conducting patrols and strengthening the coastal defences of key areas by targeted mine-laying and by mounting new gun batteries. For
example, the Russians began establishing a forward mine-artillery position in the mouth of the Gulf of Finland on 31 July 1914; a total of 2119 mines were laid. The position was protected by four cruisers and destroyers.

The first major naval engagement in the Baltic took place in late August 1914. On 26 August, Russian cruisers patrolling the Gulf of Finland engaged two German cruisers SMS *Augsburg* and SMS *Magdeburg* when they attempted to enter the Gulf. Both German cruisers sustained damage with *Magdeburg* forced to beach. The loss of the *Magdeburg* was the first serious casualty of the German navy at the hands of the Russians.

The RBSF did not see any action until late October 1914. The balance of forces in the theatre gave the Russians absolute confidence that they would have no problems establishing effective sea control. However, in August 1914 the Russians received a nasty surprise. Since 1912, the Germans had deployed a special task group comprising the 23,000 tonne battle cruiser SMS *Goeben* and the light cruiser SMS *Breslau* under the command of Admiral Wilhelm Souchon to the Mediterranean aiming to disrupt French and British communications in the area. On 10 August 1914, after a lengthy hot pursuit by British forces, *Goeben* and *Breslau* entered the Dardanelles. Formal agreement was reached that both German cruisers were to become part of the Ottoman Navy and that Souchon would assume command of the combined German-Turkish forces.

The addition of these two units considerably improved the offensive capabilities of the Ottoman Navy in the Black Sea. Their presence forced the Russian naval command to dispatch a combined battle group comprising five battleships (*Evstafiy*, *Ioann Zlatoust*, *Panteleimon* (ex-*Potemkin*), *Rostislav* and *Tri Svyatitelya*), and two to three cruisers and destroyers.

On 29 October, the combined German-Turkish task force comprising *Goeben*, cruisers *Breslau* and *Hamidiye*, mine cruiser *Berk*, mine-layers and destroyers carried out surprise attacks on the major Russian Black Sea ports of Odessa, Novorossiisk and Feodosiya; *Goeben* shelled Sevastopol. As a result of these coordinated attacks, Russia lost the gunboat *Donets* and the minelayer *Prut*, two steamers *Kazbek* and *Yalta*, and 14 ships were destroyed in Novorossiisk. The Russians also lost a unique opportunity to reverse the naval balance of forces in their favour at the beginning of the war: during the bombardment of Sevastopol *Goeben* entered the protected Russian minefield. But due to poor coordination it was not activated in time, thus allowing her to escape with some damage caused by Russian coastal artillery. This raid did not just see the effective entry of Turkey into the war against Russia. It once again highlighted the poor level of Russia’s defence preparedness of its principal naval bases from an undeclared enemy attack - a lesson that did not seem to be learned by the Black Sea command from the Japanese surprise attack on Port Arthur in January 1904.

Contrary to the level and scale of naval warfighting in the North Sea, Russian maritime theatres were of secondary significance. Driven by its defensive maritime strategy and lack of political will and strategic decisiveness, the Russian Navy exercised a degree of
strategic restraint, often failing to capitalise on tactical gains. During the three major naval campaigns of 1914, 1915, and 1916 Russian naval forces were active and achieved some successes. Russian naval operations included mine warfare, naval blockade, submarine and anti-submarine warfare, coastal defence and air warfare at sea. Russian naval intelligence also played a major role.

Mine Warfare

Mine warfare was one of the key factors in Russia’s approach to warfighting in WWI. Mitchell presented an accurate picture:

Mine warfare was the order of the day, with some use of sea power as a mobile flank to land armies. Submarines to a considerable extent and seaplanes to a very minor degree were added to the picture as the war progressed.\(^{36}\)

The commencement of hostilities in Europe forced the Russian Naval Staff to adjust its prewar plans. In the Baltic, contrary to initial fears, the Germans did not commit any significant forces in an attempt to overwhelm the RBF or to threaten St Petersburg. Von Essen, a strong proponent of forward operations, succeeded in arguing for a change in operational plans for the 1914-15 campaigns. Under his command, the General Staff of the Fleet developed and carried out what Russian naval analysts described as a ‘maritime mine-protective operation’ in the southern sector of the Baltic. This was preceded by an intensive intelligence gathering operation, which allowed the Russians to identify the main areas of operational activity of German forces, their principal points of basing, and the main shipping routes used by the Germans in support of their war effort. The main objective of this strategic defensive operation, which was staged over 107 days (from October 1914 to February 1915) across an area of 500km in depth and 360km in front, was to impose serious operational constraints on activities of German naval forces and merchant marine in the southern and central Baltic. The operation involved:

- targeted mine-laying near main naval bases and sea ports such as Memel, Pillau, Danzig
- interruption of main shipping routes connecting Germany with Sweden with mine-laying, submarine and destroyer patrols
- blocking the Danish Straits with minefields and submarines.\(^{37}\)

To ensure secrecy and to achieve an element of surprise, all mine-laying operations were carried out at night and in complete radio silence. These measures were supported by extensive disinformation measures carried out by Russian military intelligence and counter-intelligence units. A total of 1458 mines were laid during the operation.\(^{38}\) As a result, the German navy experienced some unexpected losses. One of the most vivid examples of Russian tactical success was the covert mine-laying operation near Bornholm Island. The operation involved the 3600 tonne mine-layer Amur, protected by
cruisers Bogatyr, Riurik and Oleg and two submarines. Amur laid a total of 240 mines. Even though the operation was carried out in an area of heavy maritime traffic, it went unnoticed by the Germans. As a result, German losses included two steamers Bavaria and Kenigsberg and T-47 and T-51 minehunters. Maritime traffic in that area was interrupted and the stability of seaborne trade across that particular sector of the Baltic Sea was compromised for some time.

Offensive and defensive mine-laying operations of the Baltic Fleet continued throughout 1915 and 1916 and involved many elements of Russian light forces. In February 1915, the Russians carried out a successful covert mine-laying operation off Danzig (200 sea mines were laid by destroyers). Secrecy was achieved and over time, four German cruisers, eight destroyers and 11 transports struck this minefield. On 3 December 1915, three destroyers (Novik, Pobeditel and Zabyaka) laid mines north-west of the port of Vindava along a shipping route heavily used by the German navy. The following day, the Germans lost the light cruiser Bremen and the destroyer T-191, with another destroyer V-177 and the escort ship Freya lost over the next few days.

From 1915, the intensity of Russian offensive and defensive mining in the Baltic declined. This can be largely explained by a change of command following von Essen’s death on 7 May 1915. Although by mid-1915 the RBF had established a favourable maritime regime and was pressing hard on critical German shipping routes, von Essen’s successors effectively surrendered the initiative and restrained the Fleet’s operational activities in forward areas. Under von Essen’s command, the Fleet laid over 3000 mines (1914 and 1915 naval campaigns), but in the following years, only 200 mines were laid. However, the network of protected mine barriers (mine-artillery positions, offensive mine fields, targeted mine-laying) proved to be effective in containing German forces and inflicting some serious damage upon them. The effectiveness of Russian mine warfare in the Baltic is demonstrated by the destruction of the 10th Flotilla of German destroyers in November 1916, which attempted to penetrate the Gulf of Finland but hit the mine-artillery position, losing seven ships.

Russian wartime naval operations in the Black Sea also commenced with a large scale mine-laying campaign comprising a sequence of defensive mine-laying operations. After establishing a protected mine-artillery position near Sevastopol and following the German-Turkish surprise attack on Russian Black Sea ports in late October 1914, the RBSF shifted its emphasis from defensive to offensive mine-laying. Targets of Russian offensive mine laying operations included:

- approaches to the Bosporus Strait with an aim to prevent Goeben and German-Turkish light cruisers from entering the Black Sea
- the Zunguldak coal mining area with an aim to block the supplies of key energy resources and shipments of food and other resources to the Turkish army in the Caucasus
• Turkish major Black Sea ports and littoral shipping routes aiming to paralyse coastal shipping

• German submarine bases in the theatre.

Initially, the offensive mine-laying was limited in scale. Being preoccupied with Goeben’s firepower and higher speed, and fearing losing any capital ships, the Fleet Commander Admiral Andrei Ebergard placed more faith in creating an opportunity for a decisive battle with the German-Turkish battle group on the protected mine-artillery position. The task of enforcing the naval blockade of the Bosphorus was given secondary importance. To illustrate this, during the 1914-15 naval campaigns the RBSF laid 1347 mines. After Vice Admiral Kolchak took command of the Fleet in August 1916, Russia’s approach to warfighting in the Black Sea changed considerably. Like von Essen in the Baltic, Kolchak took a more proactive approach, emphasising forward interdiction over defensive operations in the littoral. The use of mining increased with 4000 mines laid in 1916 and another 2000 in 1917.44

Overall, Russia’s defensive and offensive mine-laying operations in the Baltic and Black Sea proved effective and had a significant impact on the freedom of manoeuvre of naval forces and merchant ships as well as on the shipping routes used by Germany and Turkey in respective maritime theatres. Significantly, the majority of German and Turkish losses came from Russian mines. Since then, mine warfare is an essential element of Russian warfighting at sea.

Major Surface Action

Throughout the war, the Russian Navy did not engage enemy forces in major battle. Hopes to draw enemy battle groups into a decisive battle near one of main mine-artillery positions did not eventuate as the Germans in the Baltic did not commit any significant forces. Moreover, Russia’s successful offensive mining campaign of 1914-15 and the subsequent losses the German forces sustained imposed limitations on the commitment of significant enemy forces to the theatre.

On the other hand, the General Staff and the emperor imposed severe restrictions on the use of new Sevastopol class dreadnoughts in the Baltic. As the former Chief of the Soviet Navy Admiral Nikolai Kuznetsov noted, new dreadnoughts were allowed to be deployed at sea under his personal orders.45 The main battle element of the Baltic Fleet - two brigades of battleships comprising new dreadnoughts and three ageing battleships Andrei Pervozvanny, Slava and Tsesarevich - were kept safe in the Gulf in Finland as part of Russia’s plan to engage an enemy fleet in a decisive battle near the main mine-artillery position and to protect St Petersburg from a maritime attack. A fear of the growing submarine threat and the haunting memory of Tsushima also contributed to the decision to keep Russian battleships predominantly in the Gulf. On a few occasions, RBF pre-dreadnoughts were allowed to join light forces in the central Baltic. However,
the majority of forward deployments, including interdiction operations, were carried out by the 1st Brigade of cruisers (Admiral Makarov, Bayan, Bogatyr and Oleg), destroyers, submarines and mine-layers.

Occasional gun battles between Russian and German cruisers and destroyers in the Baltic took place throughout the three major naval campaigns. Often these engagements took place during mine-laying operations or on patrol near the enemy coast. One of the first significant incidents occurred on 24 April 1915 when the 1st Brigade of cruisers, whilst offering protection to the Russian destroyers engaged in covert mine-laying operations near Libava, encountered the German protected cruiser Munich escorted by the destroyer V-181. During a half hour gun exchange neither side sustained any losses. Later, the Russians detected two additional German destroyers V-151 and V-153, fired at them and forced them to retreat. While the Germans questioned the Russian performance, the Russians considered this engagement successful. The 1st Brigade ensured the completion of the covert mine-laying operation (120 mines), which delivered immediate results: the next day the German destroyer V-107 struck the mine field and sank.

The most significant battle between Russian and German light forces took place during the raid of a Russian cruiser battle group on the German naval base and major seaport of Memel in June 1915. The Memel Operation was based on the element of surprise and used accurate intelligence of the massing of German naval forces in Kiel. The strategic aim of the operation was to influence German public opinion by showing the offensive force of what the Germans thought to be an ‘inactive’ RBF and, perhaps, force Germany to rethink its approach towards Russia. To achieve this goal, the Russians deployed the bulk of the Fleet: cruisers Bogatyr, Oleg and Riurik supported by Novik and seven older type destroyers. This strike group was supported by the battleships Slava and Tsesarevich, cruisers Admiral Makarov and Bayan and several destroyers and submarines. On 19 June, approaching the island of Gogland in heavy fog, the Russian battle group encountered the cruiser Augsburg, the mine-layer SMS Albatros and three destroyers, later reinforced by cruisers SMS Roon and SMS Lübek. During the two-staged engagement the superior Russian force caused serious damage to Albatros, forcing her to beach on the Swedish shore, where she remained interned until the end of war. Russian gunfire also damaged Roon and Lübek. The German heavy cruiser SMS Prince Albert, whilst attempting to aid the German group, was attacked and seriously damaged by the British submarine E9. The engagement with German light forces compromised the element of surprise; and the attack on Memel was called off and a retreat ordered. Whilst not sinking a single major unit, the Russians were nonetheless satisfied with the outcome of the battle as they inflicted damage on several German cruisers and demonstrated that they had significantly improved their gunnery and coordinated gunfire compared with the April encounter.

The most significant confrontation between the Russian and German navies in WWI took place in October 1917, when the Germans launched the amphibious operation
Albion aimed at capturing the Moonzund archipelago and securing the maritime corridor to Petrograd.\textsuperscript{48} The Germans concentrated two thirds of their fleet against the RBF. The Germans had over 300 warships, auxiliaries and troop carriers, including 10 dreadnoughts, one battle cruiser, nine light cruisers, 56 destroyers and torpedo boats, six submarines and 27 mine sweepers; while the 25,000-strong invasion force and battle groups were supported by 94 naval aircraft and six dirigibles. The Russians had 116 units, including battleships Slava and Grazhdanin (ex-Tsasarevich), three light cruisers, 36 destroyers and torpedo boats, five mine-layers, three gun boats supported by 16 coastal defence gun batteries (54 guns), 10,000 infantry, 2000 cavalry and 30 aircraft.\textsuperscript{49} The operation included a number of battles during which the German forces broke through Russian protective defence barriers.\textsuperscript{50} The German occupation of the islands was swift and successful. Russian ground forces, partially demoralised by poor coordination and command as well as by Bolshevik anti-war propaganda offered little resistance. The navy performed better, and despite its eventual retreat from the Gulf of Riga and abandonment of the forward mine-artillery position, it inflicted considerable damage on the Germans.\textsuperscript{51} The Germans secured the archipelago and the Gulf of Riga but failed to push towards Petrograd.\textsuperscript{52} Following the battle for Moonzund major operations in the Baltic came to an end.

In the Black Sea, the situation was somewhat different. After completing the defensive mine-laying operation, emphasis shifted to interdiction operations, blockade of the Turkish Straits and the subsequent paralysis of German-Turkish task group operational activity. Despite the threat posed by Goeben the Russians were determined to pressure Turkish littoral shipping routes. The first major RBSF combat operation was carried out between 22 and 25 October 1914 when its battle group bombarded the Zunguldak coastal coal mining region - an area of vital economic importance to Turkey. During this operation Russian cruisers and destroyers intercepted, attacked and sank five Turkish merchant ships, including three troop carriers.\textsuperscript{53} During the second raid against the area, the Russian battle group had its first engagement with Goeben and Breslau. On 5 November 1914, five Russian battalions supported by cruisers Almaz, Kagul and Pamiat Merkuria and 13 destroyers intercepted Goeben and Breslau near the Sarych peninsula, Crimea. Having by far the superior force the Russians had an opportunity to destroy the most potent units of the German-Turkish forces. However, the short battle lasted only 14 minutes and was mainly a gun duel between Goeben and Eustaffiy. The Russian battleship hit Goeben in the first salvo, inflicted serious damage and forced the Germans to retreat. The Germans having greater speed were able to escape the Russian battleships and cruisers. Eustaffiy also sustained some damage.\textsuperscript{54}

Russian battle groups continued to harass fortifications in the Bosporus Strait, the Zunguldak region and other areas of the Turkish Black Sea coast throughout the 1915 and 1916 naval campaigns. For example, between January and September 1915, the RBSF carried out over 10 raids against the Bosporus and adjacent areas. The high operational tempo was partially linked to the 1915 Gallipoli amphibious operation.
aimed at securing the Turkish Straits and opening a new maritime corridor to Russia. Anti-shipping operations against the Turkish littoral were very successful. According to the combat chronicles of Captain 1st Rank Vladimir Trubetskoi - the commander of main destroyer divisions of the RBSF - between November 1914 and December 1915 the Russians sank and captured 19 large transports and steamers, and over 182 smaller boats, sailing craft and barges used by the Turks as transports. The Russian guerre de course against Turkey was so effective that by mid-1915 its merchant marine had lost one third of its total tonnage. Overall, Russia’s interdiction operations near the Turkish coast had compromised steady supplies of Turkish forces in the Caucasus and disrupted the flow of energy supplies to the country’s industrial centres, including Constantinople and to its naval forces.

With the commissioning of the improved 23,789 tonne Sevastopol class dreadnoughts Imperatritsa Marya and Imperatritsa Yekaterina Velikaya the RBSF gained undisputed superiority over the German-Turkish forces. Contrary to the situation in the Baltic, the Russian imperial command allowed the new dreadnoughts to go into combat. On 8 January 1916, Goeben came under fire from Imperatritsa Marya in the southern sector of the Black Sea and was forced to escape to the Bosporus. On 9 July 1916, Imperatritsa Marya escorted by the cruiser Kagul and five destroyers intercepted Breslau on her way to Novorossiisk. After the first salvo, which hit her, Breslau retreated at maximum speed. These two engagements demonstrated to Souchon that the ambition to secure the Black Sea was no more.

The RBSF was effective in aiding Russian Caucasian Army and Russian forces operations in Romania. The Fleet provided coastal defence and gun fire support, disrupted Turkish shipping routes that assisted enemy ground operations, and transported troops, ammunition and key supplies. In early 1916, the RBSF played a decisive role in a major amphibious operation carried out by the Russian forces near the Turkish town of Trabzon. In mid to late March, a special flotilla of 27 mobilised merchants escorted by Imperatritsa Yekaterina Velikaya, cruisers Almaz, Kagul, Pamiat Merkuria and Prut, and two destroyers transported two special brigades reinforced by mountain artillery to the landing area. The landing operation was supported by Imperatritsa Maria, Panteleimon and Rostislav. As a result of successful offensive, the Russians captured Trabzon and made considerable advances against the Turks.

Despite the tragic loss of Imperatritsa Marya in October 1916 due to a catastrophic explosion in Sevastopol, the RBSF established sea control over the theatre and created the conditions under which the Russian General Staff began planning an amphibious assault on the Bosporus and Constantinople. However, the start of political turmoil and the rise of revolutionary movements in the navy stopped this long standing ambition.
Submarine operations

The role of submarines as a stand-alone fighting arm of the navy dramatically increased in WWI. Russia was one of first nations to appreciate the strategic potential of these new combat platforms, and submarines stationed in Vladivostok during the Russo-Japanese War played an important deterrent role against a Japanese maritime attack on the naval base and the city. Following that war the Russian Navy ordered the design and production of a number of submarines. The largest submarine series built in Russia before and during WWI was the Bars class designed by Bubnov. A total of 27 Bars submarines were laid down by Russian shipyards in the Baltic and Black Sea. By November 1917, 13 were commissioned.

In 1912 the Russians launched the world’s first submarine mine-layer Krab, which was commissioned with the RBSF in June 1915. Her sister ships - Ersh and Forel - were built for the RBF. Russia entered the war with a relatively small number of operational submarines: in July 1914, the navy had 28 submarines in its order of battle divided between the two main fleets.

During the war, the Russian submarine force was tasked with three major missions with the interdiction element being a predominant factor: anti-shipping warfare, reconnaissance, and offensive mine-laying.

In the Baltic, Russian submarines were targeting the main shipping routes that connected Germany with Scandinavia. Some boats achieved high numbers of sinkings. For example, in May 1916 the RBF submarine Volk sank three German merchant ships in one day. However, the overall number of operational Russian submarines in the theatre remained low, which caused her allies to send reinforcements. In 1915, four British E-type submarines managed to break through German cordon and reached Russian shores. Their operations, though played down by Russian naval historians, proved to be quite effective and contributed to the successes of the RBF.

In the Black Sea, Russian submariners targeted the Zunguldak-Constantinople shipping route. The most effective submarines were Morzh, Nerpa and Tyulen. For example, during the 1916 campaign Tyulen under the command of Captain 2nd Rank Kititsin torpedoed four and captured two Turkish merchant ships. The Krab proved to be very effective in Russia’s blockade operations off Bosporus and in blocking the German submarine base in Varna (Bulgaria). During the 1915 and 1916 campaigns, Krab carried out at least three deployments each involving covert offensive mine-laying. Together with cruiser and destroyer operations, Russian submarines caused havoc to Turkish marine operations in the Black Sea. The German-Turkish naval forces sustained some significant losses: in 1915 alone, two Turkish cruisers (including Breslau), one gun boat and a mine-layer struck Russian minefields. Goeben also sustained damage from Russian mines off the Straits and was out of action for seven months.
In 1916, the Russian Baltic and Black Sea fleets received 11 AH-type submarines from the United States. The majority of these boats were operational in the final stages of the war; some were commissioned by the Soviet Navy after the end of Russian Civil War. By 1917, the Russian Navy had 52 boats. The impact of the Russian submarine force during WWI was limited. Despite the successes of individual crews and submarine captains, Russian submarines sank or captured just over 200 enemy vessels and craft. The majority of sunken vessels were small Turkish sailing boats or steamers. Russia’s total losses were 12 submarines. Nevertheless, combat operations in wartime were an important learning school for the Russian submariners. Tactics developed and experienced gained by the Russian submariners in WWI laid the foundations for the emergence of the Soviet submarine school, which later became one of the world’s leading schools of operational art and professional applications of submarines as new tools of war at sea.

Anti-Submarine Warfare

One of the new elements of combat operations in wartime for the Russian Navy was anti-submarine warfare (ASW). Despite the fact that the submarine force has become an important element of sea denial for the Russians in the Russo-Japanese War the Navy was largely unprepared to counter the sub-surface threat posed by U-boats. In the first months of WWI the successes of just a few German submarines, culminating in the sinking of the cruiser Pallada on 11 October 1914 in the mouth of the Gulf of Finland forced the Russians to reconsider their tactics. The sub-surface factor had become a threat and required an allocation of considerable resources to counter it. Urgent measures included:

- establishing ASW barriers by targeted mine-laying; setting up net defences; ASW surface patrols and later, aerial patrols
- ASW defence of operational battle groups
- introduction of convoys to protect friendly merchant shipping; maintaining radio silence and minimising the use of signal lights to avoid detection.

By 1916, ASW was an essential element of Russian operational activities. However, they were falling behind their Entente allies in terms of deployed capabilities. The absence of powerful depth charges and hydrophones limited Russian effectiveness in neutralising the threat posed by U-boats. As a result, the Germans sank 32 Russian warships and auxiliaries, including one cruiser, three destroyers, two mine-layers, seven minesweepers, and 34 merchant ships (27.8 per cent of all collateral damage sustained by the Russian merchant marine in WWI). It is worth noticing that since the Germans considered the Baltic and Black seas as theatres of secondary importance, they initially deployed limited submarine forces against the Russians. It was in 1916-17, that the German navy dispatched the latest variants in larger numbers. In August 1914
the Germans operated four obsolete boats on average in Russian maritime theatres, in 1916-17 this grew to 23.\textsuperscript{70}

Still, the Russian navy achieved some success. The absence of effective ASW capabilities was partially compensated by a more targeted approach, which was described then as an ‘active struggle against submarines’. These measures included blockade of enemy submarine bases combined with efforts to destroy enemy boats either in those bases or in their area of operational activity. Russian naval aviation played a role in ASW operations. However, the majority of ASW operations were conducted by Russian light surface forces (destroyers and minesweepers). The most successful ASW campaign was carried out by the RBSF, driven by the need to secure critical shipping routes that aided the Russian front in the Caucasus as well as forces fighting in Romania.\textsuperscript{71} Targeted mining was particularly effective: in 1916 within six months the Germans lost \textit{UB-45}, \textit{UB-46}, and possibly \textit{UB-47}; as a result, by December 1916 German submarine operations were effectively paralysed.\textsuperscript{72} Overall, the Germans lost 11 submarines in Russian theatres, which made 6.2 per cent of the total losses of U-boats in WWI.\textsuperscript{73}

**Naval Intelligence**

Perhaps, one of Russia’s most significant contributions to the allied war effort at sea was in the field of intelligence gathering. Prior to WWI, the Russian Empire had a comprehensive intelligence gathering capability that engaged in collecting political, military, technical and economic intelligence. Russian naval intelligence relied on a network of naval agents (naval attaches) in 15 foreign countries spread across Europe; a collection of coastal monitoring stations located in frontier areas, abroad and along the coast; signals intelligence; descriptive service (with one station in the Baltic and one in the Black Sea); aerial intelligence; and maritime intelligence carried out by surface combatants and submarines.\textsuperscript{74}

Throughout the war, Russian naval intelligence was responsible for providing fleet naval staff as well as the main naval staff with intelligence on movements of enemy main surface combatants and campaign plans. In the Baltic, apart from the above tasks the emphasis was given on acquiring intelligence on merchant shipping, enemy mine-laying; with robust counter-intelligence activities aimed at misinforming the Germans about Russian mine warfare. In the Black Sea, one of key intelligence missions was to acquire actionable knowledge about the activities of \textit{Goeben} (the Russian intelligence referred to her as the ‘uncle’) and \textit{Breslau} (‘nephew’).\textsuperscript{75} With the rise of the submarine threat, the detection of enemy submarines, their basing and patrol areas become an essential element of intelligence gathering activities, involving aerial intelligence, visual intelligence and signals intelligence. With respect to the later, by 1916 the Russians had ten monitoring stations and 11 signal interception posts in the Baltic as well as eight permanent monitoring stations in the Black Sea.\textsuperscript{76}
One of the most important intelligence successes was naval decryption in 1914 and 1915. As discussed earlier, on 26 August 1914, Russian cruisers damaged the German *Magdeburg* and forced her to beach. After the Russians seized her, they found an intact suite of German naval codes, including the *Singalbuch Kaiserlichen Marine*. Analysis of captured documents allowed the Russian cryptographers to develop an algorithm used by the Germans in encrypting their communications. The findings were shared with their British counterparts.\(^77\)

In April 1915, the Turkish light cruiser *Medjidie* hit a Russian minefield near Odessa and sank. After the Russians raised the cruiser they found intact paperwork concerning coding practices used by German and Turkish forces as well as Turkish signals manuals.\(^78\) As in the case of *Magdeburg*, *Medjidie* failed to destroy top secret documentation providing the Russians with access to naval signals used by the Germans and their allies in the Baltic and Black seas. As a result, for a good part of war at sea, the Russian navy had an opportunity to intercept German and Turkish communications, thus improving its own situational awareness. The British Room 40 (signals intelligence and cryptography) was also a beneficiary of Russia’s success. Overall, Russian naval intelligence in WWI proved to be very effective and allowed the naval command to have an accurate up to date actionable picture of German, Turkish and their allies’ operational designs, force posture, ship movements, reserves, mine-laying and other activities for each maritime theatre.

### Naval Aviation

World War I saw the active use of air power not just over land but also at sea. In 1909 the Russian navy tested airborne capabilities in a number of war games, determining its primary use as reconnaissance. When the war broke out, the Navy had seven aircraft based in the Baltic (five C-1 Hydro, one Farman-11 and one Farman-16) and eight aircraft in the Black Sea (predominantly Curtiss).\(^79\) Initially, Russian Naval Aviation (RNA) was tasked with reconnaissance and intelligence-gathering: tactical reconnaissance missions at an altitude of 500-700m and at the operational depth of 50-70km; and strategic reconnaissance (200-250km in depth).\(^80\)

Russian naval command was quick to realise the growing strategic value of carrier-borne aviation as both the reconnaissance as well as the strike element of fleet battle groups. In the first years of WWI the navy commissioned a number of aircraft carrying ships, which were converted from unarmed merchant ships. In early 1915, the RBF received the 3800 tonne armed aircraft transport *Orlitsa* capable of carrying up to five hydroplanes. Since 1914, the RBSF had more potent units - two 9200 tonne aircraft carrying transports *Imperator Aleksandr I* and *Imperator Nikolai I*.\(^81\) Both carriers were capable of accommodating six to eight aircraft.\(^82\) From 1915, all Russian aircraft carrying ships were actively used in combat operations. For example, on 15/16 March 1915 the four aircraft based on *Imperator Nikolai I* carried out a bombing raid on the Zunguldak area as part of a RBSF raid, involving five battleships, three cruisers, five destroyers...
and six minesweepers. Russian aircraft dropped seven bombs which destroyed a power station and sparked a number of large fires. On 24 January 1916, during another RBSF raid on Zunguldak, aircraft from *Imperator Aleksandr I* and *Imperator Nikolai I* attacked a 7000 tonne Turkish transport and port facilities: the transport was sunk and port infrastructure was badly damaged.\(^8\) On 2 July 1916, aircraft from *Orlitsa* engaged German fighter planes, which attempted to attack the Russian task group in the Gulf of Finland. As a result of intensive aerial combat the Germans lost three aircraft; one of their crew was taken prisoner by Russian pilots.\(^8\)

In the Baltic from late 1914, the Germans began using dirigibles for reconnaissance and bombing missions. In response, von Essen ordered a construction of a special aerial station (air base) near Helsingfors for armed interceptor aircraft. In 1915 Russian naval pilots shot down five aircraft and three dirigibles over the Baltic, three enemy crews were taken prisoner. In 1915-16, RBF naval aviation was fully engaged in not just maritime reconnaissance and aerial intelligence but in aerial targeting, limited air combat, air defence of Russian major surface combatants and main naval bases, and air to surface attacks on enemy installations. In 1916, the intensity of Russian naval air operations in the Baltic reached its peak: a total of 1022 combat sorties were carried out; approximately 200 bombs were dropped during multiple bombardments. Enemy losses included six aircraft against three Russian planes.\(^8\)

From 1916, RNA in both European theatres was tasked with ASW missions. In the Black Sea, naval aircraft were used to protect battle groups and convoys from U-boats; Russian planes took part in the RBSF blockade operations against the Varna submarine base. In the Baltic, naval aircraft engaged enemy submarines. For example, on 19 August 1916 Russian Warrant Officer Shitakov forced a U-boat to surface after bombing it and then attacked it again.\(^8\)

Throughout the war, RNA proved its relative effectiveness. Whilst the Russians did not realise their prewar plans to develop and deploy a strategic bombing strike capability they nonetheless managed to demonstrate good capacity to defend their main assets against enemy aerial attacks as well in delivering tactical air support, air to surface strikes, ASW and reconnaissance. The Allies’ military assistance during the war proved to be invaluable in expanding RNA capability and in growing the force. Towards the end of WWI, naval aviation of the Baltic and Black Sea fleets was organised in two independent divisions, one per fleet with 543 operational aircraft. The Russians developed and perfected tactics in the use of reconnaissance and combat aircraft in the interests of the navy; Russian pilots had gained valuable combat experience.
Conclusion
The Imperial Russian Navy entered the war semi-ready, whilst still recovering from the disaster of the Russo-Japanese War. The Navy was not short of talent in its officer corps. Russian shipbuilders supplied the fleets with advanced platforms and weapons systems. The transfer of key military technology and assets by the allies further improved Russian warfighting capabilities at sea. During the war, together with foreign military aid the Navy received seven dreadnoughts, 29 destroyers, 31 submarines, 15 minor warships, 50 amphibious craft. But the horror of Tsushima and Port Arthur continued to haunt the senior naval command and the Imperial political elite, often paralysing good initiative and undermining self confidence of fleet commands. The growing politicisation of naval crews and the breakdown of discipline and the chain of command in 1917 undermined some significant gains of previous naval campaigns. Whilst being so close to reaching its long awaiting goal of securing the Turkish Strait, which was also guaranteed by the 1915 secret accord between Russia and its Entente allies, it was forced to abandon it, because to the growing RBSF paralysis caused by revolutionary upheaval.

Russia’s naval strategy and operations in WWI drew a number of important lessons. The success of Russian defence and offensive mine-laying campaigns in the Black and especially the Baltic seas highlighted the cost effective way of wartime combat activities in those theatres. Russia’s concept of a strategic defensive operation based around the protected mine-artillery position was an important contribution to the naval school of operational thought and was used by the Soviet and other navies in future conflicts. The need to establish a reliable maritime transit link between Russia and its western European allies has demonstrated the growing strategic value of the Arctic theatre. Since the commencement of Arctic convoys in early 1915 until their effective end in late 1917, a total of 3580 ships transported approximately 10,000 tonnes of cargo to and from Russia. The Arctic route was also used for the transit of Russia’s 44,000-strong expeditionary corps to France, which played an important role in stabilising the Western Front in 1916. The strategic value of the Arctic was once again proven indispensable 25 years later.

Russia did play an important role in allied burden sharing by occupying the attention of some significant assets of the German and Ottoman navies. The success of its naval operations was proven by the collateral damage the Russians inflicted on enemy fleets: one battleship (SMS Rheinland), nine cruisers, 23 destroyers and torpedo boats, 11 submarines, one large Turkish mine-layer and numerous smaller craft, apart from sunken or captured merchant marine. Whilst not successful in capitalising on its war gains, the Russian navy effectively controlled both maritime theatres for the larger part of the war and placed an unexpected pressure on Germany, thus aiding the allied victory in 1918.
Endnotes

1 Captain 1st Rank V Simonenko, ‘Morskoi Biudzhet Rossii Nakanunei v Gody Pervoi Mirovoi Voiny’ [Russia’s Maritime Budget prior to and during World War One], Morskoi Sbornik, N 8 2002, p. 60.


3 Sorokin & Krasnov, Korabli Prokhodyat Ispytaniya, p. 77.


6 Captain 2nd Rank A Kolchak, ‘Kakoi Flot Nuzhen Rossii’ [What Kind of Fleet Does Russia Need], Morskoi Sbornik, N 3, 1993, pp. 26-27. The original version was printed in Morskoi Sbornik in 1908 (Nn 6-7). Admiral Kolchak was one of Russia’s most talented and promising naval officers. Veteran of the Russo-Japanese War and WWI, he became one of main leaders of Russia’s ‘white’ movement during the Civil War. He was executed in 1920.

7 Captain 2nd Rank M Rimskiy-Korsakov, ‘Zachem Rossii Nuzhen Flot’ [What Russia Needs the Navy For], Morskoi Sbornik, N 3 1993, p. 21. The original version was printed in 1908 (Nn 2-3). In 1906 Rimskiy-Korsakov was a member of the special commission that investigated reasons for the Tsushima disaster.


11 Moskovenko, Gosudarstvo Rossiiskoe i Flot, p. 113.

12 Moskovenko, Gosudarstvo Rossiiskoe i Flot, pp. 119-120.

13 Sorokin & Krasnov, Korabli Prokhodyat Ispytaniya, p. 88.

14 Sorokin & Krasnov, Korabli Prokhodyat Ispytaniya, p. 95.


17 VD Dotsenko, AA Dotsenko, and VF Mironov, Voenno-Morskaya Strategiya Rossii, Terra Fantastica, St Petersburg, AKSMO, Moscow, 2005, p. 129.


21 Moskovenko, Gosudarstvo Rossiiskoe i Flot, p. 83.

22 Moskovenko, Gosudarstvo Rossiiskoe i Flot p. 135.


Goeben was renamed Yavuz Sultan Selim, while Breaslau was renamed Midilli.

During the war, St Petersburg was renamed Petrograd.

German losses included 10 destroyers and six minesweepers; three dreadnoughts and 13 destroyers and torpedo boats were damaged. Russian losses included Slava and Grom; one battleship, one cruiser, two destroyers and two gun boats were damaged. Golub (ed), Entsyklopediya: Velikaya Oktjabr’skaya Sotsialisticheskaya Revoliutsiia [The Encyclopaedia of the Great October Socialist Revolution] (3rd ed), Sovetskaya Entsiklopediya, Moskva, 1987, p. 306.

It is possible to assume that the strategic end of the Operation ALBION was to force the Russian interim government to seek truce with Berlin by threatening a maritime attack on Petrograd.

Surprisingly, it should be pointed out that the strategic end of the Operation ALBION was to force the Russian interim government to seek truce with Berlin by threatening a maritime attack on Petrograd.
With a displacement of 650 tonnes (762 dived), *Bars* was armed with four torpedo tubes, one 57-mm and one 37-mm guns and a machine gun. Claimed to be the world’s most potent submarine of its time the boat had a surface cruising speed of 18 knots (9.6 dived) with an operational range of 2250nm. The operational depth of the *Bars* class submarines was 50m, with a maximum diving depth reaching 100m.

*Sorokin, Krasnov, Korabli Prokhodyat Ispytaniya*, pp. 45-47.

The *Krab* was armed with two torpedo tubes and a 76-mm gun and could carry up to 60 mines.


*Sorokin, Krasnov, Korabli Prokhodyat Ispytaniya*, pp. 47.

Barabanov, ‘*Za Shag do Pobedy na More*,’ p. 11.


Kozlov, ‘*PLO Rossisskogo Flota v Pervoi Mirovoi Voine*,’ p. 81.

Kozlov, ‘*PLO Rossisskogo Flota v Pervoi Mirovoi Voine*,’ p. 81.

Captain 1st rank V Belozer, Captain 1st Rank A Smolovskiy, ‘Morskaya Razvedka VMF Rossiiskoi Imperii’ [Naval Intelligence of the Russian Empire], *Morsko Sbornik*, N 5 2008, p. 64.

Barabanov, ‘*Za Shag do Pobedy na More*,’ p. 11.


Belozer & Smolovskiy, ‘Morskaya Razvedka VMF Rossiiskoi Imperii’, p. 64.

During the war, the Russian Black Sea Fleet was reinforced with three additional aircraft transports: *Almaz*, *Rumynia* and *Imperator Troian*.


Deineka (ed), *Aviatsiya Rossiiskogo Flota*, p. 27.


Deineka (ed), *Aviatsiya Rossiiskogo Flota*, p. 28.

Simonenko, ‘Morskoi Bludzhset Rossii Nakanune i v Gody Pervoi Mirovoi Voiny’, p. 64.

Simonenko, ‘Morskoi Bludzhset Rossii Nakanune i v Gody Pervoi Mirovoi Voiny’, p. 64.

*Mitchell, A History of Russian and Soviet Sea Power*, p. 321; author’s estimates. This excludes warships and auxiliaries damaged by Russian action.
On Sunday 23 May 1915, King George V sent a message to the officers and crew of the British submarine E14 congratulating them on their ‘splendid achievement’ in the Dardanelles from 27 April to 18 May.1 Keen for some good publicity to divert attention from the recent resignation of the First Sea Lord, Admiral Sir John Fisher, the Admiralty forwarded a report on E14’s actions to the press.2 The story ran in The Times the following day under the headline ‘The exploits of E14’.3 It was a story that both the public and the Royal Navy could be proud of. After three weeks of harassing and sinking Ottoman vessels, while running the gauntlet between recharging its batteries and diving for cover in the Sea of Marmara, E14 was the first submarine to successfully return back through the Dardanelles defences. Its commander, Lieutenant Commander Edward Courtney Boyle, was awarded the Victoria Cross and his entire crew a mixture of other high accolades.4 Then, unlike now, the Dardanelles campaign was viewed as a joint operation and the navy was at the forefront of the public’s perception of the war in that far-flung theatre.

Despite its origins as a naval operation, the navy has largely faded from the narrative of the Dardanelles campaign (also known as the Gallipoli campaign in most land-centric histories). There are few studies, for example, that examine the important role that the navy performed beyond its losses of 18 March 1915, and even fewer that recognise that once the decision was taken to land troops on the Gallipoli peninsula, the campaign became a joint naval and military operation - where success relied on the actions of both services.5 Rather, the vast literature is generally separated into those that focus on the military and the events on land, or a portion of the story at sea, such as the voyage of the Australian submarine, AE2. Contrary to what most accounts would have us believe, the navy was not a passive force. It was busy in both offensive and supporting roles, and played a crucial role every day of the campaign.

Origins of the Naval Attack

The Dardanelles campaign, like most others, had political origins. These lay in an appeal from Grand Duke Nicholas to Britain on 2 January 1915 to ease pressure in the Caucasus. First Lord of the Admiralty, Winston Churchill, and others, including the Secretary of State for War, Lord Kitchener, were considering alternatives to the Western Front and agreed to launch a naval campaign against the Ottoman Empire. Rather than risking the principal ships of the fleet, it was decided to use some of the Royal Navy’s surplus warships. There would, at this time, be no military cooperation. The aim was to defeat the Ottoman Empire, open up a logistic route to Russia, and acquire new allies in the Balkans.6
But operations, although limited, had actually commenced well before this appeal. Following the Ottoman Empire’s declaration of war on 31 October 1914, Britain warned Constantinople that it would engage any ships that exited the Dardanelles. And it did. The main action was a bombardment of the outer forts of the Dardanelles defences in the early hours of 3 November 1914, ostensibly to gauge the range of the Ottoman guns. The results were considered ‘satisfactory’, with the firing leading to an explosion of the magazine in the Sedd el Bahr fort at the entrance to the Dardanelles. After signalling a warning of things to come, however, the fleet then went back to patrolling.\(^7\)

Throughout January and February 1915, planning was underway for the naval offensive that had been promised to Russia. Vice Admiral Sackville Carden tentatively agreed to undertake an operation (after some not so subtle hints from Churchill), and settled on a plan of operations for the gradual reduction of the Dardanelles defences in seven phases. Essentially, the plan was to silence the forts up to the Narrows; silence the mobile artillery; sweep the minefields; and then move to silencing the forts above the Narrows. The ships would use a combination of long and close-range fire techniques - with the proviso that they would not subject themselves to unnecessary risk and undue fire. The final phase, once the fleet had passed through the Dardanelles, was to undertake operations and secure the Sea of Marmara.\(^8\) There was still no plan to use the army at this stage.

**Engaging the Forts**

Carden’s operation commenced at 0951 on 19 February 1915, when HMS *Cornwallis* opened fire on the Ottoman fort, Orkanie. On this particular day, as per Carden’s phased plan, the fleet only bombarded the ‘outer’ forts at the entrance to the Dardanelles (Helles, Sedd el Bahr, Kum Kale, and Orkanie). The firing at long- and medium-range drew no reply from the enemy, and had little impact on the Ottoman defences. It was at close-range, as the French battleship *Suffren* proved at 1630, that the forts could be damaged. But it was also at this range that the enemy decided to reply. HMS *Vengeance* came under heavy fire from the Ottoman guns in the Orkanie and Helles forts, and by 1730 the allied attack had stalled. Carden then realised that long-range fire had little impact on modern earthworks.\(^9\) Only a direct hit - which was difficult owing to a shortage of ammunition, and issues with long-range spotting and firing whilst moving - could silence an enemy gun, of which there were 232 protecting the Straits.\(^10\) Despite the limited accomplishments of the day, there was a confidence, especially at the Admiralty in London, that although operations may take longer than expected, the navy would ultimately be victorious.\(^11\)

Carden intended to resume the attack the next day, but bad weather intervened, and operations were postponed until 25 February. This time, however, the fleet adopted different tactics. Rather than firing at the forts in general, they concentrated on each individual gun, aiming for a direct hit. Success ensued. By the afternoon the outer defences were silent, and minesweeping had commenced.\(^12\) The second phase was now
underway, but the weather once again plagued operations, and gains were minimal
during the next fortnight.

From 26 February to 4 March the focus was on the ‘intermediate’ defences. These forts,
with their 65 guns, and protected by over 50 concealed mobile heavy howitzers and
mortars, were the principal defence for the minefields. These formidable defences
combined to prevent the fleet from anchoring in the Dardanelles and greatly hindered
allied progress. Allied demolition parties were landed on both shores of the Dardanelles
throughout this period, and while they were successful in destroying numerous enemy
guns amongst the outer forts, they were met with stiff opposition, thus preventing
them from advancing towards the intermediate defences. Their impact, therefore, was
minimal.13

On 5 March, with the intermediate defences silenced (but not destroyed), the focus
switched to the ‘inner’ defences at the Narrows. HMS *Queen Elizabeth*, positioned off
Gaba Tepe, fired her 15-inch guns across the peninsula, hitting the rear of the Kilid
Bahr group of forts. Such long-range fire, combined with the lack of efficient aerial
observation, proved inadequate to destroy the forts. Fishing trawlers continued
minesweeping at night, yet, due to the searchlights, mobile guns, and the strength of
the current, achieved very little. By 8 March, Carden realised that naval operations
could not succeed without observation to locate the mobile guns. Unless such support
existed, battleships would be required to continually move, thus reducing the accuracy
of their fire; the minefields would be protected; and unless the minefields were cleared,
the battleships could not get close enough to the forts to destroy them. Time, therefore,
was devoted to minesweeping.14

On 16 March, whilst preparing for his next attack on the Narrows, Carden, ill and
exhausted, relinquished command to his deputy, Vice Admiral John de Robeck. Familiar
with Carden’s plans, de Robeck decided to proceed with the attack as planned.15 The attack
on the Narrows forts resumed at 1130 on 18 March 1915. Initial results were promising.
By 1400 the enemy resistance had slackened, and de Robeck ordered his battleships
back and the minesweepers forward. It was here that the pendulum of progress swung
the other way. During her withdrawal the French battleship *Bouvet* suddenly exploded
and sunk. At 1611, HMS *Inflexible*, operating in the same area, hit a mine and began to
list. Three minutes later, a report came from HMS *Irresistible* that she too was listing,
incorrectly believing she had been hit by a torpedo. Fearing the presence of floating
mines, de Robeck called off the attack. At 1805, after attempting to tow *Irresistible*,
HMS *Ocean* also hit a mine. Both ships were abandoned and lost. The day was an Ottoman
victory and a significant allied naval failure, culminating in the loss or destruction of six
allied warships, for minimal gain.16
Origins of the Joint Attack

While disheartening, the losses of 18 March did not alter de Robeck’s intent to push on. He anticipated that further attempts would be successful after a reorganisation of the minesweeping force. But, after meeting with the recently arrived General Sir Ian Hamilton and his staff on 22 March, a decision was taken to abandon the naval attempt, and prepare for a joint operation with 70,000 troops. Hamilton understood that the army was to be used as an enabler for further naval operations. In an enciphered telegram to Lord Kitchener on 23 March he wrote: ‘I have now conferred with [the] Admiral and we are equally convinced that to enable the Fleet effectively to force the passage of the Dardanelles the co-operation of the whole military force will be necessary’.

More than a month passed before the joint operations commenced. In the interim both the naval and military staffs fervently prepared for an amphibious landing on the Gallipoli peninsula. The aim was for the army to land and take the forts from the rear, thus securing the shore, and allowing the navy to recommence minesweeping operations. In other words, the army was a supporting arm for the navy - and military success would be the precursor to further naval operations.

Throughout the Gallipoli landings on 25 April the navy provided crucial support for the forces ashore - not only did they land the troops, often, especially the British at Cape Helles, under heavy fire - but they provided naval gunfire support (an important component given the lack of artillery pieces ashore); evacuated the wounded from the beaches to hospitals in Egypt and the United Kingdom; and submarines harassed Ottoman shipping in the Sea of Marmara. In addition, the navy was also responsible for the aircraft of the Royal Naval Air Service (which undertook reconnaissance for intelligence purposes, as well as photography and spotting for artillery and naval fire); the Royal Naval Division, which fought ashore; housing General Headquarters during the landings; and keeping Hamilton in Queen Elizabeth, and his staff in communication with their forces ashore.

The primary and most demanding function of the navy at the Dardanelles was the task of transporting men and supplies to the Gallipoli peninsula. Being an amphibious campaign, the army relied exclusively on the naval forces to deliver everything necessary for living and fighting. While the troops ashore attempted to push forward and consolidate their positions, the navy continued its daily patrols, provided naval gunfire support, and delivered stores and supplies to the beaches. It was an endless and largely thankless task. And it was made even more difficult from late-May due to the presence of enemy submarines.
A Changing Environment

On 23 May, the same day that the King congratulated Boyle and the crew of E14, the Admiralty was informed of the possible sighting of a hostile submarine off the Gallipoli peninsula. In the absence of an attack, however, there was the hope that it was ‘possibly [a] false alarm’. The reports were correct: the submarine was lurking, looking for the best trophy. It was careful not to surface on 24 May - the same day that a truce took place in the Anzac sector to bury the thousands of Ottoman dead from the failed attack of nearly a week earlier. But at lunch on 25 May - ironically the same day that 150 submarine nets were shipped from the United Kingdom - the German U-21 fired a torpedo and sank HMS Triumph off Gaba Tepe.

That single action changed the role of the navy in the Dardanelles. The fear of submarines underpinned every decision made for the remainder of the campaign. Lines of communication were altered, small craft were used to ferry men and supplies throughout the Mediterranean, and the battleships were recalled to the safety of Mudros Harbour - thus denuding the forces ashore of fire support from the most powerful guns.

It also showed just how reliant the army was on the navy - both for fire support and sustainment. In a conversation with his chief cipher officer on 27 May, Hamilton spoke of the importance of the navy to the army’s survival: ‘if [the] ships can’t bombard and [the] troops can’t be fed [success] would be impossible’. In spite of these difficulties, the navy sailed on. Throughout June and July, as the army prepared for the largest offensive of the campaign, the navy provided a sea-based reconnaissance platform, thereby allowing the military commanders to appreciate the complexity of the terrain and for both the military and naval officers to understand the sea approaches to Suvla Bay. The navy also moved five new divisions around the theatre, and undertook detailed planning to land them, and their supplies, during the August Offensive.

The Second Great Adventure

Like the initial landings in April, the August Offensive was meant to be a joint operation. The objective was for the army to proceed across the peninsula, thereby cutting the Ottoman forces in two, starving them out, and gaining control of the peninsula. Once the forts had been put out of action, the navy was to recommence the types of operations it had undertaken in February and March. But unlike April, de Robeck’s staff was not involved in any ‘offensive’ planning for August. In this regard, the plans for August were significantly different to those issued in April. In April, minesweeping was to commence while the troops were disembarking, and naval demolition parties were to land and destroy the guns of the forts, once the area had been cleared of Ottoman resistance. In August, however, there was no mention of any naval action at all apart from landing and supporting the army. It was a joint operation in concept, but not in practice.
Nonetheless, the navy played a crucial role during the August Offensive. It had to land a force of 20,000 untried troops at a new location in Suvla Bay. Learning some lessons from April, the navy decided to use motor launches, known as ‘beetles’, rather than the row-boats that had been used for the initial landings. These beetles, which could carry 500 men, were much quicker to the shore. Throughout the night of 6/7 August, these beetles travelled back and forth between the troop ships and the beach.

Owing to the limited numbers of field artillery pieces available for the August Offensive, and even fewer positions to situate them, the naval forces were required to provide added fire-support for the army. Yet, in spite of trying, the ships’ guns did little to alter or improve the overall situation. The effectiveness of naval gunfire support was limited by various factors including the availability of ammunition, flat trajectory of fire, and observation difficulties tied to the lack of reliable spotting.

The navy also took the battle to the enemy. Throughout August three allied submarines, E14, E11 and E2, destroyed 27 Ottoman vessels in the Sea of Marmara, and surfaced to fire on Ottoman reinforcements marching along the shore. Similarly, the Royal Naval Air Service undertook air raids on Ottoman logistic hubs, including air torpedo attacks on 12 and 17 August. These attacks caused the Ottomans to think carefully about their own lines of communication. But while slowing Ottoman supplies, the attacks could not stop them reaching the troops on the peninsula.28

After the loss of Chunuk Bair on 10 August, and as the reality of the failure of the August Offensive set in, the focus of both the army and navy shifted to preparing for a drawn-out winter campaign. The bad weather that was expected - and which came in October - wrought havoc on the beaches and made the navy’s task of landing supplies and sustaining the army that much harder. That the army did not starve is testament to the hard work and experience of the navy, and the cooperation between naval transport officers and military landing officers.

### Drawing to a Close

In late-November, after his visit to the theatre, Lord Kitchener decided that the best course of action was to evacuate all forces from the Suvla and Anzac sectors. De Robeck did not agree, informing the First Lord of the Admiralty, Arthur Balfour, that the ‘evacuation of Suvla or Anzac is not favoured by Navy but is entirely a Military necessity in which Navy must co-operate if called on’.29 The subservience of the navy to the army - as a result of the army’s failure and an unrealistic strategic plan - is clear from this single statement. While the two services had continued to work together, the campaign had long since been fought as a joint operation.

After much debate and indecision, on 7 December Cabinet agreed to withdraw the allied forces. Coordinated planning was already underway, which allowed for the evacuation of men, munitions and supplies from the Anzac and Suvla sectors by 20 December, and from Cape Helles by 9 January 1916.30 It was an astonishing accomplishment, for which
the army and men such as Lieutenant General Sir William Birdwood, have received much praise. What is less well recognised in the literature is that not a single man, animal, or gun could have left those shores without the navy’s pin-point planning, administration, and cooperation with the army. But like the story of the E14’s exploits that began this paper, this was not always the case. A newspaper article on 21 December gave ‘the very greatest credit’ to both the army and navy for the withdrawal. Another on New Year’s Eve described it as a ‘joint triumph’ and another on 10 January as a ‘Brilliant combined operation’. Then, unlike now, the reader did not need to be reminded that the Dardanelles campaign was a joint effort.

Conclusion
As can be seen from the events of April, August, and during the evacuations in December and January, the Dardanelles campaign was a joint naval and military campaign - and success relied on the army and navy working together. The public understood this at the time. Yet history has forgotten it. As participants passed away and the campaign faded under the weight of time and national mythology, the campaign began to be treated as a land operation: only occasionally was the navy mentioned, and then only as a supporting arm for the troops ashore. This is to simplify matters. While the army relied entirely on the navy for its transport, movement, sustainment, and gunfire support, the navy was also involved in the mundane day-to-day administration and direction of the campaign. It was involved in offensive operations, and would have had to take carriage of the campaign if the army had ever succeeded. Such a story does not necessarily make for an exciting narrative, but it is a nonetheless fundamental element of the campaign of almost 100 years ago. The Dardanelles was a joint campaign, and anything less than this is anachronistic.

Endnotes
1 Telegram, Admiralty to Navy, Mudros, Lemnos, 23 May 1915, The National Archives, United Kingdom (hereafter TNA), ADM 137/154.
2 Telegram, Chief Censor, Admiralty, to Press Bureau, 23 May 1915, TNA, ADM 137/154.
4 For more on this patrol see: V Rudenno, Gallipoli: Attack From The Sea, UNSW Press, Sydney, 2008, pp. 97-104.
5 Reflecting contemporary terminology, ‘joint’ refers to multiple services working together. In 1915 such operations were termed ‘combined operations’.
16 James, *Gallipoli: Attack From The Sea*, pp. 60-63.
18 Telegram, General Sir Ian Hamilton to Lord Kitchener, 23 March 1915, TNA, WO 33/731.
19 WP Braithwaite (CGS), ‘Force Order No. 1’, 13 April 1915, GHQ MEF war diary, Australian War Memorial (hereafter AWM), Series AWM 4, Item 1/4/1 part 2.
22 Telegram, Vice-Admiral, Tenedos, to Admiralty, 23 May 1915, TNA, ADM 137/154.
23 Telegram, Director of Stores, Admiralty, to VA EMS, 22 May 1915, TNA, ADM 137/154.
25 Diary entry, 27 May 1915, Imperial War Museum, Papers of Dr O.C. Williams, 69/78/1.
26 ‘Army Corps Order No. 16’, 3 August 1915, ANZAC HQ war diary, AWM, AWM 4, 1/25/5 part 3.
28 Crawley, *Climax at Gallipoli*, pp. 103-105.
29 Telegram, VA EMS to First Lord of the Admiralty, 23 November 1915, TNA, ADM 137/192.
The Ottoman Empire entered the war on 31 October 1914 when Russia declared war on her after ships of the Ottoman navy, including the acquired old German cruisers *Goeben* (re-named *Yavuz*) and *Breslau* (renamed *Midilli*) gifted to Turkey, bombarded Russian Black Sea ports on 29 October (Sevastopol, Novorossisk, Feodosia, and Odessa). This was a pre-emptive strike, which had military and political strategic reasons behind it (which are not dealt with in this chapter), and only minor damage was inflicted (on two small warships and six merchantmen). However, it was a success for Germany, as it propelled Russia to declare war on the Ottoman Empire and by 5 November, her allies Britain and France too, were at war with what was left of the Ottoman Empire.

The Ottoman government had actually mobilised its armed forces on the outbreak of the European war in August and had gradually been drawn into the conflict by German machinations, internal Ottoman politics and British failures in diplomacy.

Planning Ottoman defensive considerations during this period was something of a nightmare. By the nature of its geopolitical position the Turks would have to defend at least four potential fronts - the Caucasus in the east, Sinai/Palestine and Suez in the south, together with the Mediterranean (Iskendurun/Alexandretta) and the Dardanelles/Black Sea and Aegean approaches. Three of these became a reality: Caucasus, Suez-Sinai and of course the Dardanelles.

The Dardanelles (as part of the Turkish Straits) had always featured prominently in Ottoman defensive considerations and previous belligerent enemy states’ offensive considerations, especially since the Royal Navy under Admiral Sir John Duckworth had penetrated to Istanbul (Constantinople) in 1804.

So the Dardanelles and its shores, the Gallipoli peninsula and the Anatolian side as its guardian terrain, had to be secured. German naval assistance was sought from their naval mission, which had replaced Admiral Limpus’s British naval mission. Six hundred German defence specialists were sent, in attempted secret, to help the Ottomans on mine, gunnery, fortifications and torpedo warfare for the Dardanelles and the Bosphorus. At sea this meant laying a series of minefields and improving and updating shore fortifications.

The Dardanelles was only partially defended with the laying of a cursory minefield and strengthening of the forts with their 12- and 15-inch cannons. Ottoman ships at this point needed to negotiate passage through the minefield and this was done by a pre-selected route (see Figure 1).
The British reply to the Ottoman fortification strengthening work was a naval blockade of the Dardanelles from the Aegean by their Mediterranean naval squadron, which began on 26 September 1914. In response, the Ottoman government closed the Dardanelles on 29 September.

Now it was crucial to stop intruders and potential enemies from the south. On land to protect the shores, the 3rd Army Corps was initially deployed by 3 November and gradually reinforced until the Ottoman 5th Army was created in time for the Gallipoli campaign in April 1915, putting 80,000 or so troops to garrison the peninsula.

This military deployment corresponded with the first naval offensive activity. As 3rd Corps were settling their deployment on 3 November 1914, British First Lord of the Admiralty, Winston Churchill, it seems, though records are not clear on this, had ordered the Royal Navy to bombard and try to reduce the outer forts of the Dardanelles. In so doing the British issued a strong message to the Ottomans that the expected front at the Dardanelles was earmarked for operations.

The intention of the attack was essentially to test the fortifications and measure the Ottoman response. The results were deceptively encouraging. In a 20-minute bombardment, a single shell struck the magazine of the fort at Sedd el Bahr at the tip of the Gallipoli peninsula, displacing (but not destroying) 10 guns and killing 86 Ottoman soldiers. Total casualties during the attack were 150, of which 40 were German. The most significant consequence was that the attention of the Ottomans was drawn to strengthening their defences, and they set about expanding the minefield.
People familiar with the Dardanelles campaign are well aware that the first phase of Allied operations was to be purely naval, ending in a failure to breach the Narrows on 18 March 1915. This chapter is not concerned with the details of this action except to consider how the Dardanelles’s defences were developed and how they were to impact on the operations of allied submarines throughout 1915.

**Defence against attempts to force the Dardanelles in 1915**

The defence of the Dardanelles was shared between Turkish and German commanders, Cevat Pasha, Turkish Commander of Strait’s Forts and vice admirals Guido von Usedom and his number two, Merten. They were appointed by the leader of the German Naval Mission, Admiral Souchon with the imprimatur of Enver Pasha, Ottoman War Minister and Deputy Commander-in-Chief to command all sea-based operations. This split command was a manifestation of the Ottoman-German alliance and not always advantageous.

A glance at the situation of the Dardanelles’s defences on 18 March, as the British and French fleets assaulted, shows how far these defences had been developed since the outbreak of the war (see Figure 2). The Dardanelles is 38 miles in length. As a result of an appreciation, based on the November 1914 experience, that the vulnerability of the outer forts was not to be easily put right, Cevat developed a three sector defensive system: ‘outer’, ‘intermediate’ and ‘inner’, with the balance of defence strength being shifted to the intermediate and inner forts.

*Figure 2: Ottoman defences in the Dardanelles by March 1915*
The main foundation of the defence had to be the extended minefield, concentrated at the Narrows. This became well-known to the Allied fleet, especially as their minesweepers had failed and continued to fail to clear them. The British naval squadron’s use of North Sea trawlers as minesweepers together with their civilian skippers is well recorded. There were 11 main lines laid across the Dardanelles near the Narrows and containing 399 mines by 18 March, mainly German with some Russian ones retrieved from the Black Sea. Most were designed to withstand the strong current.\(^5\)

A few days before 18 March, undetected by the British fleet and their aerial reconnaissance, the 11\(^{th}\) line was laid in Erenköy Bay under cover of night by the mine-layer Nusret. This line caused the ultimate loss of Bouvet and Inflexible. By December 1915 the number of lines was increased to 18 and the mines to 552. Mines in lines 1-10 were spaced 44 to 55 yards apart, and line 11 spaced 110 to 165 yards apart. The later lines 14 and 15 were comprised of two deep lines for destroying submarines. The Turks also had floating mines at their disposal - estimated at 50 in number. In addition to mines at the Narrows three 18-inch torpedo tubes were installed on the pier at Kilid Bahir, giving a point blank range field of fire across the Dardanelles.\(^6\)

The role of the forts was to protect the minefield from sweeping as much as bombarding warships. There was a massive increase in the numbers of guns on the forts and batteries. The field of fire of the principal forts was below the minefields. Thus a barrage could be maintained on ships entering the Dardanelles before they could reach the minefield to sweep them.

Twenty four mobile howitzers were positioned along both sides of the Dardanelles. These were especially effective against the enemy minesweepers. They would move from one position to another, dragged by oxen teams to avoid the enemy getting a fix on them. Smoke canisters were used at various intervals to confuse the enemy gunners to draw fire away from the mobile batteries.

It was an Ottoman tactic that the forts and batteries, mobile or fixed, protected the minefield. Seventy guns and six searchlights protected the minefield at the Narrows. So searchlights played an important role in keeping the Dardanelles defended at night. A further tactic was that these guns of the fixed and mobile batteries were protected by the large calibre guns of the forts, which in turn were protected from the enemy fleet by the mobile howitzers. These fired on enemy ships to keep them moving so that no concentration of fire onto the forts could be achieved, thus increasing inaccuracy. All these defences could be employed against submarines - the surface ones of course only seriously effective if and when a submarine surfaces for any reason.

When it came to underwater defences, more submarine-specific measures were necessary. Submarine nets were deployed, essentially submarine entanglement nets. They were manufactured from strengthened fishing nets and were designed to show the path of submarine, rather than stopping it. If the path of the submarine could be traced then it could more easily be attacked from the surface with explosives.
These nets were 5m in height and 47-50m in length, four of them were tied on top of each other so that they would be 20m tall and they were produced in layers. On every piece of net, the length of the wire rope between the observation cauldrons that served as buoys on the surface was 100m. There were several lash-like rope flagella on the net which could also entangle the propeller of the submarines that tried to go through. Additionally, cork floats were attached to it to keep the net light.

An interview with a Turkish Dardanelles veteran soldier published in 1981 sheds some light on how these nets proved effective from time to time. It is not clear which British or French submarine is referred to, but the procedure is of interest:

A submarine got caught in the nets below Akbas... near the mouth of the Bigali Creek... The nets were bobbing up and down...We went across there with Captain Celal and a German officer, a submarine captain. They took a sounding to see how many fathoms down it was. They measured and made their calculations accordingly. We lowered the dynamite to explode at the right depth and they lit it. Then we got out of there. The sea then swelled. Five or ten minutes later the sub was there and men started emerging from the hatch. There were twenty seven of them ...

Allied Submarine Operations

The narrative of allied submarine activity in the face of these solid defences provides examples of how the Ottomans operated their anti-submarine defence once a submarine had breached the defences at the Narrows. During the Dardanelles/Gallipoli campaign a small number of British, French and one Australian submarine passed through the Dardanelles 27 times.

The first main incident was the sinking the Ottoman battleship Mesudiye by torpedoes from the British submarine B11, with losses of 37 men from a crew of 637. This occurred on 13 December 1914 in Sarısıglar Bay and demonstrated early to everyone that it was possible for enemy submarines to get into the Sea of Marmara. At this point though, there were only 5 lines of mines.

The captain of B11, Lieutenant-Commander Norman Holbrook, was awarded the Victoria Cross - the first Royal Navy VC of the war - and 12 other crew members received awards. Coupled with the naval bombardment of the outer defences on 3 November, this success encouraged the British to pursue the campaign but it led the Ottomans to speed up the mining and engage in a number of defensive developments.

The Ottomans set up patrols (small vessels such as the yacht Galata, the steamboat Istanbul and the gunboats Zuhaf, Pelengiderya, İsareis and Aydınıreis) were used to find and destroy underwater intruders. In addition, lookout posts were built on each side of the Dardanelles and mantelli guns were positioned at important places along the shores of the Sea of Marmara, the İzmit Gulf and the Istanbul area. Permission to navigate only during daytime hours was given to civilian craft and all movement in the Sea of Marmara had to be adjacent to the coast. This was so boats used for marine transportation could.
be protected from submarines, as they would not be able to get close to shallow waters.

Another near breach of the Narrows took place on 15 January 1915, by the French submarine *Saphir* but she ran aground at Nagara Point - either mined, sunk by shellfire or scuttled, leaving 14 crew dead and 13 prisoners of war.

Establishment of a more efficient defensive, observation and reporting system was under way using Ottoman and German personnel. Observation posts were set up along the shores of the Sea of Marmara, where gendarmerie and land troops were posted. Enemy action and movements were communicated by telegraph and phone to Istanbul or to the nearest station by signal. The nucleus of this organisation consisted of four officers and 15 soldiers under a Turkish navy captain on Marmara Island and working closely with a hunter group. When a submarine was observed by a post, the report was sent to Navy headquarters, which in turn transmitted the report to all ships by radio and all available boats were sent to the reported section.

Captain von Benheim, leading the Marmara observation flotilla established his headquarters on Marmara Island on 7 April 1915. Together with the commander of the Marmara Island signal station Captain Nazmi Efendi, von Benheim visited the observation station centres at Bandırma, Erdek and Karabiga on the western part of the Sea of Marmara on the Anatolian coast. Observation stations were also designed to be signal stations and production of a specification manual called the *Submarine Observation Manual* was begun outlining actions for the observation-signals points. It was not ready for approval until 3 July 1915 and it took a few more months before it was available for distribution. Observation points grew in number slowly as items they needed were manufactured step by step, reaching 50 by December 1915.10

Meanwhile British submarine activity began to increase slowly after the 18 March debacle. The British submarine *E15* tried to breach the Narrows on 17 April but hit the sea bed in front of Kepez at 0600hrs trying to execute an escape manoeuvre. Ottoman sources reveal its conning tower was sighted and attacked with gun fire from the shore defences. The submarine was damaged, seven of the crew were killed and the rest captured. The beached *E15* was a valuable prize for the Ottomans and the British went to great lengths to deny it to them, finally sinking it after numerous attempts.11

On 25 April, *AE2* was the first submarine to breach the minefield across the Narrows and then make a nuisance of itself ‘running amuk’ in the Sea of Marmara, till it met its demise on 30 April.12

The second submarine through the Dardanelles had more luck. On 27 April, *E14*, commanded by Lieutenant-Commander Edward Boyle, entered the Sea of Marmara. It proved to be that was one of the most successful actions achieved by the Allies in the entire campaign. *E14* went on a three-week rampage and sank the gunboat *Nurülbahir* between Mürefta-arköy on 1 May. Boyle was awarded a VC.

Eventually *E14* too, was to meet her demise. On 1 May 1916, *E14* attacked a merchant ship
as she withdrew from the Dardanelles. Firing two torpedoes, one prematurely exploded damaging the submarine. She was forced to surface because of flooding but then came under coastal battery fire off Kum Kale and was sunk; nine of her crew survived and were taken prisoner.

_E14_ was followed by _E11_, commanded by Lieutenant-Commander Martin Nasmith, who was also subsequently awarded the VC. He reached Istanbul waters and sank or disabled 11 ships, including three on 24 May at the port of Rodosto (Tekirda) on the Thracian shore. On 5 August, _E11_ again entered the Sea of Marmara and sank the steamboat _Halep_ in front of Akba and heavily damaged the torpedo boat _Peyki Sevket_.

On 8 August off Bulair [Bolayir], _E11_ torpedoed the Ottoman battleship _Barbaros Hayreddin_ (formerly the German _Kurfürst Friedrich Wilhelm_) as she was steaming towards Çanakkale. She then sank the steamboat _Isfahan_, which was at the Haydarpaa Dock in Istanbul on 15 August, entered the Gulf of Izmit and shelled the Gebze Bridge and the railway; _E11_’s deputy captain’s attempt to swim ashore to destroy the bridge was prevented by the guarding units.

_E11_ was joined by _E12_, _E2_, _E7_ and _H1_ as British submarines continued to breach the Narrows and sink Ottoman steamboats and destroyers. _E7_ became a victim of the submarine nets on 4 September, was hit by a shell and forced up to the surface before the crew jumped ship after opening the valves and scuttling the boat. On 10 May 1915, the submarine _Ani_ damaged _Gülcemal_ with a torpedo. It was carrying soldiers and supplies to Çanakkale under the protection of a destroyer.

The defences were more successful against French submarines. _Joule_ sank on 26 July 1915 as she was entering the Çanakkale Strait and hit a mine. And _Mariotte_ was sunk by cannonfire in front of the Çimenlik fort on 26 July, when she surfaced to enter the Dardanelles.13

The only French submarine that managed to enter the Sea of Marmara was _Turquoise_, but she hit the bottom in front of Akba when returning from an unsuccessful operation, surfaced in an attempt to escape and was damaged by Turkish field cannons. The crew, who did not have any chance of escape, had to surrender; meanwhile, all the documents on board fell into Turkish possession. According to these documents, _Turquoise_ was to meet the British submarine _E20_ on 5 November. Hence, the German submarine _U-14_ was assigned the duty of sinking _E20_. _U-14_, which went to the meeting point, succeeding in sinking this submarine with a torpedo shot from a distance of 500m. _Turquoise_ was taken to Istanbul and was re-named after Corporal Müstecip, who had caused the submarine to surrender by firing on it.

German U-boats become an important addition to Ottoman sea defences, not just in the Dardanelles, but also around Helles and Anzac. The Turkish navy had no submarines during World War I, as submarines ordered from Britain and France before the war
began were not delivered. The Ottomans had to rely on the Germans to provide any underwater challenge to the British and French.

U-boats had appeared in May when Commander Otto Kersing and his U-21 sank Triumph, which had been the marker ship for the ANZAC landing of 25 April, off Kabatepe on 25 May and HMS Majestic on 27 May off Teke Burnu at Cape Helles. U-21 entered the Çanakkale Strait on 4 June 1915 and sank the 56,000 ton Carthage. On 2 September U-14 torpedoed the 12,000 ton ship Swaziland at Mudros and on 5 November 1915 it sank E20 in the Sea of Marmara.

The onset of U-boats was an important development as it hastened the departure of Queen Elizabeth with its massive guns and destructive power from the Dardanelles, the only dreadnought deployed there.

Thirteen German submarines of various tonnage were sent to the eastern Mediterranean, the Aegean and the Black Sea, of which five were eventually lost. A lesser known fact of submarine warfare in the Dardanelles is that the British were able to restrict the activities of German submarines by laying their own minefield and submarine nets across the mouth of the Çanakkale Strait.

The Turkish General Staff History states that apart from the sinking of Allied warships: ‘The greatest benefit of the German submarines was to prevent the British and French battleships from easily firing towards the Turkish emplacements as if engaging in target practice’.14

During the Dardanelles campaign Allied submarines sank eight Ottoman battleships and 31 transport ships, and damaged more than 200 sailboats and pontoons. On the other hand, the Allies lost 9 submarines: five British, three French and one Australian (and one French submarine was captured by the Turks).15

AE2

Those acquainted with the story of AE2 know how it breached the Narrows and its minefield on 25 April 1914 the day of the ANZAC landing and then on 26 April entered the Sea of Marmara to begin its ‘running amuk’. The Ottoman perspective of the pursuit and loss of the Australian submarine illustrates a little of how the Ottoman defences operated.

At 1045hrs on 25 April the Ottoman 3rd Army Corps was determinedly blocking ANZAC and British troops from making any headway ashore on the peninsula. The Turkish battleship Turgutreis was patrolling off Nara Point and reported seeing two water bubble tracks between the Nara buoy and the fort at 800 to 1000 yards, and concluding that a submarine had fired a torpedo. At the same time, the battleship Barbaros and the destroyer Yarhisar were in the area. The Barbaros reported being attacked by a submarine in front of the Yapildak lighthouse.
There was an earlier report that an enemy submarine entered Çanakkale Harbour and had been spotted once near Çimenlik (Çanakkale Fort) and once between De irmenburnu and the Mecidiye Battery on the Anatolian side of the Dardanelles. The report stated that the submarine was fired upon both with torpedoes as well as from the Mecidiye Fort on the coast. ‘Whether the mentioned submarine sank or dove on its own accord could not be determined’, the report stated.  

These reports were the first known sightings of AE2 as she approached the Narrows and penetrated into the Sea of Marmara. They prompted von Usedom to telegram Navy headquarters to send some torpedo boats, receiving the reply ‘All available torpedo boats will immediately come to Gallipoli with the flotilla commodore.’ Sources vary as to their departure time but the flotilla under Commodore Adolf Pfeifer sailed from Istanbul to Çanakkale by 27 April.

One vessel in this flotilla was the torpedo boat Sultanhisar, which had been conducting observation duties in the Black Sea and minesweeping on the Bosphorus at the end of 1914 and the beginning of 1915. There were no more reported sightings of AE2 until 27 April, when at 0120hrs, the patrol gunboat Zuhaf anchored at Sarköy noticed a submarine on the surface approximately at 27° 28’ east and 40° 30’ north (between Sarköy and Karaburun) and she fired 19 shells from a distance of between 1000 and 1500m. She kept firing until the submarine disappeared from sight at 0125hrs and at 0145hrs the torpedo boats Yarhisar and Kütahya came alongside Zuhaf and they fired in concert. At 1410hrs Zuhaf saw the submarine on the surface at the same location and fired two rounds from 6400m and the submarine disappeared again.

While this action took place, Sultanhisar was approaching at a slow speed. Its captain, Rıza Efendi, was casually watching another ship No. 38. Being something of a literary sort, he was lost in thoughts, as some of his crew made music. This is part of his idiosyncratic report:

My duty watch sailor was awake and on alert. He had not left me alone on this road and was following me with a protective pursuit. All of a sudden, he pointed to a spot in the distance which had become silvery. There, like a fish taking a deep breath, a torpedo had been fired and was moving toward the boat. I saw the torpedo on our port side moving fast toward the 38. I sent a signal to 38 and it immediately turned to the land and went towards the shore. It was as if a falcon had flown over a spring forest. The drum, the pipe, the singing, everything stopped. It was saved by the right manoeuvre. There was confusion on the boat and everybody held on to their guns... But the enemy firing the torpedo was not to be seen. Instead, there was only the white foamy trace of the torpedo moving fast on the surface. The torpedo missed 38, went toward the shore and exploded with a loud report.

This unexpected incident had me exasperated. One of the submarines, the presence of which in the Marmara had everybody preoccupied for days was now in my hands. I was hoping to use this opportunity and catch it. Notifying the Peyk-i Sevket, operating close to my position of my intention, I stayed at that location. I searched
around for more than two hours hoping to find a trace. I turned up every corner of the sea to find the enemy shrouded in the magic dark blue mantle of water. It was nowhere to be found; it did not dare to make itself seen.\footnote{17}

After these developments, on 28 April \textit{Sultanhisar} was ordered to ‘patrol with \textit{Akhisar} between Gallipoli and Karakova lighthouse until 1800 and drop anchor in Gallipoli after that.’ At 1840 she picked up Liman von Sanders Pasha and his entourage, dropped them at Maydos at 1950 and arrived at Gallipoli at 2235, where she dropped anchor in the harbour.

On 29 April at 0730 near Gallipoli, \textit{Peyk-i Sevket} noticed a submarine. On this day the British fleet shelled Maydos causing massive damaged and loss of life, including wounded troops in the Maydos hospital. This caused an interruption in the hunt for \textit{AE2}, but fired up the crew on \textit{Sultanhisar}. The torpedo boat \textit{Basra} sighted a submarine and fired one shell from its fore and three shells from its starboard guns and moved to attack near Cape Karabiga at 1300hrs; the submarine stayed on the surface for two minutes and then dived again.

The same day, \textit{E14}, managed to get through into the Sea of Marmara, and unsuccessfully attacked a convoy of two ships guarded by a torpedo boat. \textit{AE2} moving toward Istanbul on the surface sighted her. Meanwhile back at Gallipoli harbour, Captain Riza met up with the \textit{Basra’s} captain, Lutfi. They discussed the submarine pursuit and Lutfi tells Riza he saw the ‘pesky submarine’ off Karaburun Point. Then Riza received an order to return to Istanbul just as bombs from some British aircraft fell on Gallipoli.

On 30 April, \textit{Sultanhisar} set off early in the day for Istanbul. Visibility was poor due to heavy mist, but Riza ordered a circuitous route, via Karaburun. He was on the hunt again and set the ship to search areas where enemy submarines had been reported. At 0900 they were off Karaburun. In the distance, north of Marmara Island, on a line to Hayırsız Island, a small shadow appeared in the mist. A seaman yelled: ‘Vessel ahead of us!’

Riza’s report continues:

\begin{quote}
The distance and the early morning fog didn’t allow a clear sight. The insufficient strength of the binoculars prevented me from getting an idea about the ship ahead. Yet, the silhouette wasn’t one of a boat we were used to seeing. ...I had to decide what to without wasting time. In any case, I had to find out the nature of this boat. I gave the order through the tube: Burn the British coal, full speed ahead!
\end{quote}

At high speed \textit{Sultanhisar} sped towards the craft. Through their binoculars the crew suddenly saw the vessel dip lower in the water. Crewmen jumped up and shouted: ‘Submarine! Submarine!’ They manned the guns and torpedoes, the ship’s engine was at full power, and they got within shooting range just as the submarine disappeared below the surface. All that Riza could now do was to manoeuvre and not let the submarine escape.
Riza moved towards Marmara Island, eyes scanning the horizon. Suddenly a submarine periscope broke the surface just about 100-200m in front of him. Riza opened fire. From his report again:

...the gunners on the two guns on the deck were aiming for the periscope. They were estimating the distance, measuring angles, and raising or lowering the gun according the given angle. I steered the ship slightly to port. Edremitli Ömer [Ömer from Edremit] was on the starboard gun... As I gave the order to fire, all eyes were fixed in one direction. At 1035, the guns fired. The gun burst with a loud noise, the projectile fell short.

I issued a new order:

- **Up 50!**

The starboard gun fired again. The projectile fell exactly where the periscope ripped the water. A cracking noise was heard. I yelled from the command post again:

- **Hit! Continue firing!**

The port gun also started firing with the same angle and distance. This time, they withdrew the periscope. I had my men continue firing. But the enemy wasn’t to be seen, it had disappeared. Our mini guns, firing in quick succession had just presented the 4th projectile, but the periscope had been lowered. But two shots fired by the starboard gunner Corporal Ömer from Edremit had been hits.

Unknown to Riza he hit **AE2**, and Captain Stoker in **AE2** was having major problems keeping the submarine alive. His diving wheel was inoperative and the submarine kept going deeper. To stop going down, Stoker emptied the water in the tanks.

Above the surface Riza was convinced that with the periscope hit and damaged, the submarine must surface again somewhere. He reported:

With this in mind, I kept going in wide circles at full speed, trying to keep the point the submarine disappeared in the centre of these circles... For twenty minutes, I went around without seeing a trace of the enemy... All eyes were scanning the sea, everyone at their stations, paying full attention, it was a hard wait. Minutes seems as long as years. And still there was no trace of the enemy submarine. Then suddenly:

- **It’s coming up!**

Something was certainly coming up slowly on our port side. Two feet above the surface at 1500 meters our binoculars revealed a conning tower two feet above the surface now approaching us. Ordering the guns and rifles to fire, I steered towards it as it started diving again. At that moment I saw a torpedo coming toward the starboard bow. A minor manoeuvre was enough to eliminate this danger and the torpedo went past like a dolphin leaving a foamy trace. The battle
was on - to the finish. We had two torpedoes. It would be pleasant to attack the enemy with his own weapon. This would also help us to get results faster. I gave the order to the torpedo officer to ready torpedo no. one. I informed them that we’d fire the torpedo when it surfaced again. About 500 meters away, the waters started swelling. The submarine’s tower appeared again. I took this opportunity and started manoeuvring to effectively use the torpedo. Then I saw a torpedo coming to us. The distance was very short and Sultanhisar suddenly faced the danger of going down in spite of all the efforts... Almost involuntarily, my hand moved to the command bell. Full speed ahead and I called the engine room:

- Danger, Give it all you can!

Sultanhisar leapt forward, I veered hard to port... as the torpedo closed... and went past. I ordered torpedo number one to be fired. I heard the fuse but the torpedo did not leave the tube. We had missed a great opportunity. I called the torpedo officer, furiously:

- What happened?

- The powder didn't catch fire, sir.

Powder firing fuses had been abandoned from all navies but we were still insisting on keeping on with this old obsolete musty method of firing. I was furious at the missed opportunity. It got worse as by our various manoeuvres at full speed we were now rocking and rolling in our own waves. This caused the torpedo which had failed to fire but was loosened to fall overboard. We were now like a man with only one leg. Sultanhisar had two 37 mm guns and two torpedoes. The ineffectiveness of the guns could be seen by the fact that the enemy was still moving around in spite of many hits. So, our most trusted weapons were our torpedoes. One of them was wasted and we were left in a near useless situation. I did not know what to do. I could not see the body of the submarine but the ineffectiveness of our shots gave me a rough idea about its size.

The submarine had dived again and again we were in a sorry period of observation as well as being open to a sudden attack ourselves.

It was now past 1000 and for the last half an hour, there was no sign of life from the submarine. Riza’s impatience was immeasurable. Then suddenly there was a stir on the ship.

The submarine was seen again, now apparently fleeing towards Tekirda (Rodosto) with its tower above the surface. A long distance separated them but Sultanhisar headed at full speed after the submarine firing its 37-mm guns. To no avail despite some hits. Riza decided to use his last torpedo. It fired successfully but missed, to the great consternation of Riza and his crew. Riza continued:
This provoked me even more and I just kept going after it. We watched the submarine going towards Erdek and all of a sudden it disappeared. This nearly drove us crazy. I kept on the same course while at the same time, I was progressing in wide rounds and was prepared for a sudden torpedo threat... I can’t tell how long I had to wait. Not minutes but even seconds seemed like hours. But there was no sign of life on the horizon, scanned by all eyes [on the deck]... Finally, about 500 meters ahead, the waters started to swell... the struggle was about to be renewed. There was delight in all eyes. The marksmen gave directions for the guns and the mausers started firing again. The submarine’s tower appeared on the surface again, rising higher and higher as the large vessel slowly surfaced.

So far our engagement had been solely with the periscope. We did not know how big the vessel or who the enemy was. But the waiting did not take long. The whole submarine appeared with its whole bulk above the surface. I could read the AE2 marking on it and realized that our opponent was a member of the British Navy. I was indebted to the exceptional opportunity fate offered me... The only solution, whatever the cost, was in fact to ram it. Otherwise I would have to leave the battle scene... May be we would not be victorious, may be with the ramming, both Sultanhisar and AE2 would suffer serious damage and both would go down in the blue waters of Marmara, but we were going to ram it. It was the only solution and would take us either to death or victory... I decided to ram it at its weakest spot, on the aft above the rudder, which would also prevent it from diving again. I turned Sultanhisar and increased speed. It was ten to eleven.

Continuing gun fire, I sped towards it, to hit it on the rudder, which was on our prow. The crew had prepared the collision mats, waiting for it calmly... The short reports of the guns continued and the machine guns roared furiously shaking the vessel. Alive with the crew’s determination and excitement, Sultanhisar roared forward fast and furious towards an enemy ten times its size. We were heading full speed toward the submarine. Then I turned the ship’s prow toward the rudder at angle of 10 degrees with the submarine on my right. Then it started to submerge its head. We continued at full speed and Sultanhisar’s stern hit the tip of the starboard horizontal rudder. AE2 started slowly to go down head on. There was little chance she would come up again. I thought I’d stay near the sinking point so that we could rescue anyone who could open the hatches and survive; and so we stayed where we were. This action had almost cost us our lives in the blue waters of the Marmara... AE2 suddenly came to the surface very close to the ship. It splashed water over our deck. If the vessel’s head was in that direction, there is no doubt that it would come up from under us and roll us over. This time though we were saved by luck. I immediately reversed the ship and started watching this beast rising next to us. By the time we assumed our former position, it was above the surface. We were anxiously waiting, watching what the enemy would do next, our sailors with their rifles in their hands, the gunners with their fingers on the triggers.
Then, the British Imperial War Ensign was slowly hoisted on the conning tower. Sailors stepping down on to the deck started waiving their shirts and hats. The enemy was surrendering.18

Endnotes
1 Turkish General Staff, *The History of the Turkish Armed Forces Ottoman Period, First World War*, vol V book 1, Sketch (Kroki) 4 in map section.
3 Turkish General Staff, *The History of the Turkish Armed Forces Ottoman Period, First World War*, vol V book 1, Chapter 2.
4 Turkish General Staff, *The History of the Turkish Armed Forces Ottoman Period, First World War*, vol V book 1, map section.
5 Turkish General Staff, *The History of the Turkish Armed Forces Ottoman Period, First World War*, vol V book 1, chapter 2.
6 Rudenno, *Gallipoli: Attack From the Sea*, p. 29; and Turkish General Staff, *The History of the Turkish Armed Forces Ottoman Period, First World War*, vol V book 1, p. 95
11 Turkish General Staff, *The History of the Turkish Armed Forces Ottoman Period, First World War*, vol V book 3, p. 508
12 ‘running amuk’ was the suggestion of Commodore Roger Keyes, see F and E Brenchley, *Stoker’s Submarine*, HarperCollins, Sydney, 2001, p. 58.
17 Istanbul Naval Museum Command, *Submarine Hunt in the Sea of Marmara*, p. 82.
New Zealand’s main contribution to the war at sea was the gift of the *Indefatigable* class battlecruiser HMS *New Zealand*: ‘That splendid piece of practical patriotism’ played a role in the Royal Navy’s Grand Fleet during World War I (WWI). This ship had a unique history before the war and fought in all three of the major engagements in the North Sea. Using contemporary accounts, newspaper reports, and objects I will illustrate experiences aboard the ship in order to explain the unique story that the Dominion’s gift played in the war. The objects in particular are the lasting evidence of a special connection between the Dominion and its ‘battleship’, which was a ‘source of joy and pride to every loyal New Zealander’.¹

## The Purchase

In 1907, the pulsating extremity of the maritime entity known as the British Empire celebrated its elevation to Dominion status.² Its joyful citizens sang lustily:

> God Defend Our Freeland Guard Pacific’s Triple Star
> From the Shafts of Strife and War
> And Make Her Praises Heard Afar

In 1909, the newest Dominion filled with imperial spirit and seeking to make its praises heard afar agreed to fund the purchase of one battleship for the defence of the Empire and the Pacific’s triple star. Sir Joseph Ward made the decision unilaterally and after getting approval, closed Parliament so he could attend the 1909 Imperial Conference and bathe in the glow of admiration of this noble gesture from the uttermost ends of the earth. Ward stated publicly that:

> Recognising how important it is for the protection of the Empire that the Navy should be at the absolute disposal of the Admiralty… that the truest interest of the people of New Zealand will be best served by having a powerful Navy under the independent control of those responsible for directing it in time of peace or war… so that the most effective results for the defence of all portions of the Empire may be assured.³

Ward had promised the citizens a battleship when he made the offer and it was understood the Dominion was promised a battleship rather than the battlecruiser that eventually arrived. However, Ward was not a man to quibble over the type of warship that was purchased with his government’s money. Most of the contemporary accounts happily refer to a battleship. The cost was £2.3 million pounds (worth approximately NZ$350m today), or about £2.3.0 for every man, woman and child living in New Zealand in 1909.
In 1913, she was sent on a cruise to New Zealand to show the Dominion what its money had purchased. During her world tour, she was proudly displayed as a symbol of the Royal Navy’s might, British industry, and of New Zealand’s nationhood - the country’s name proudly borne by one of the front line units of the navy that would defend the Empire. A publication by the League of Empire in 1911 noted that a large battleship, given to the navy by New Zealand, would lead a China Unit. She arrived in Wellington on 12 April 1913 and during her time in New Zealand waters, she hosted nearly 500,000 visitors, about half the population at the time. She carried out a shoot off Akaroa, which was the first time the guns were fired. She left New Zealand at the end of June to return to Britain.

**Gifts She Took into Action**

What marks her wartime service are the objects presented to her when she visited New Zealand in 1913 and which became talismans for the warship and her crew. First, there were pieces of greenstone [jade] given by the Maori tribes to the ship when it visited ports around the country. The Warrant Officers Mess was presented with some of the greenstone, which was kept there during her service. It is now in the collection of the Navy Museum.

Second, there was the piupiu (grass skirt) and tiki (carved human figure). When Captain Lionel Halsey, commanding officer of *New Zealand*, visited Rotorua in 1913, an old Maori chief presented him with a sacred tiki and piupiu. The chief asked Halsey whether he would wear the outfit if he was ever in battle. Halsey agreed to do so not thinking he would ever have to honour this promise. This is supported by an account in the diary of Halsey’s daughter from a trip to Rotorua in 1933:

> Our guide, Rangi, who is a Princess of the Arawa tribe, and related to Metataupopoki [sic], the Chief of the tribe, was very excited about me being Father’s daughter. She remembered well when he brought the HMS ‘New Zealand’ to New Zealand in 1913, and remembered how he was made Honorary Chief of the tribe, and given the Apron [sic] which he wore over his naval uniform in all the actions in the Great War in which he commanded the ship.  

Today the piupiu is in the Navy Museum and the tiki in the Auckland War Memorial Museum. Finally, there was the new national flag that had been presented to the ship in May 1913 by the Women of New Zealand.

**New Zealanders Who Served in HMS *New Zealand***

Four New Zealanders served in the battle cruiser during WWI, out of approximately 700 individuals who served in the Royal Navy during the war. Lieutenant AD Boyle was a well-connected son of South Island landed gentry and was in command of X turret. He served in the ship during all three engagements and was awarded the Croix de Guerre for the Dogger Bank action. He returned to New Zealand in 1920 and retired. Lieutenant...
RC Garcia was posted to the ship in 1914 but it seems he came off in early 1915. There were also two ratings serving in the ship. The first was CPO Eddie Fitzgerald who joined the Royal Navy in 1900 and brought the ship out to New Zealand in 1913. He served in New Zealand for the duration of the war. The second was Petty Officer Allan McInnes.7

Wartime Service 1914-18

In late July 1913, New Zealand was part of the Grand Fleet and would serve alongside her sister battle cruisers for the duration of the war. At the outbreak of war her commanding officer was Captain Lionel Halsey who had commissioned the ship and taken her to New Zealand in 1913 and had returned to command the ship after six months posted elsewhere. After the declaration of war, he sent a message to Prime Minister William Massey that ‘all on board HMS New Zealand will endeavour to uphold the honour of the Dominion’.8

Her first action was Heligoland Bight. She was part of the 1st Battlecruiser Squadron and fought alongside HMS Invincible.9 Before she went into action Halsey donned the piupiu over his uniform, later recalling:

> Officers and men who were in the Conning Tower… were so startled at seeing me in this extraordinary clothing that they appeared to be quite incapable of carrying on with their very important personal duties and I had quickly to explain why I was thus attired.10

The ship was not damaged or hit during that action. This was the first time that the new national flag of New Zealand was taken into combat. During the action, it was laced to the foremast. A rating reported to New Zealand that the whole engagement had lasted 14 minutes.11 He also mentioned that the ‘torpedoers [sic] in the fight had a hot time’.12 It was reported that she fired 82 rounds from her guns and one of her torpedoes sank the light cruiser SMS Koln.13 After the battle, New Zealand newspapers reported that praise for the ship was being reported in Britain and Canada.14 A rating wrote to his parents letting them know that the ship was unharmed. He went on: ‘We have a fine recipe in this ship for cooking German sausage, and I must say that it goes down very well with a little Jellicoe sauce’.15 In 1917 bounty money for the battle was paid ranging from £92 for flag officers to a shilling for a humble able seaman.16

As an example of how the battle cruiser was followed in New Zealand, at the beginning of January 1915, the wife of the Governor-General opened a fund to purchase extra oilskins ‘at this strenuous time’ for the men of the ship. She asked the donors to reflect on the 1913 visit and the happy times spent aboard the ship, and £370 was collected, enough to provide an oilskin for every member of the ship’s company.17

By mid-January 1915, New Zealand was part of the battle cruiser element of the anti-invasion force under Beatty. At the Battle of Dogger Bank, she carried the flag of Rear Admiral Sir Archibald Moore. Halsey again wore the tiki and piupiu. Before the action he ‘got many messages from all over the ship hoping that the [piupiu & tiki] was again
going to be worn’. At 0935, *New Zealand* was within range of *Blücher*, which had dropped somewhat astern, opening fire on her along with *Tiger* and *Princess Royal*. Most of her 139 rounds fired in the battle were at this target.\(^{18}\) Reportedly, *Blücher* was the only German vessel to have fired on *New Zealand*.\(^{19}\)

Once again, *New Zealand* received no hits. In his despatch, Beatty gave credit to the engineering staff aboard *New Zealand* for being able to steam at 28.5kts, ‘greatly exceeding their normal speed’.\(^{20}\) Moreover, the excellent steaming of the ships engaged in the operation was a conspicuous feature of the battle cruisers.\(^{21}\) The Official History notes that the men in the engine room ‘knew it was a chance of a lifetime’.\(^{22}\) The Engineer Commander and senior ratings of the engine room were all Mentioned in Despatches.\(^{23}\) The national flag was again laced to the foremost during the chase and engagement. After the battle, it was much blown out and had to be repaired. Tattered parts were cut off and given to Captain Halsey and sent back to New Zealand as trophies.\(^{24}\)

On 26 January, *The Times* reported that: One point requiring further emphasis is the proof of Imperial solidarity supplied by the participation of the *New Zealand* in the North Sea fight. The whole Empire may be proud of this fine warship built by our brethren at the other end of the world. It was able to do excellent service.\(^{25}\)

A few days later Halsey telegraphed the New Zealand High Commissioner that the ship’s company ‘are proud to have represented the Dominion’ at the battle.\(^{26}\) At the same time New Zealand newspapers were reporting that German accounts of the battle claimed that *New Zealand* had been sunk.\(^{27}\) In 1917 came the announcement that the battle cruiser would share prize money totalling £5200 for *Blücher* with 48 other ships. Senior officers would receive £79 while the most junior rating would receive a shilling.\(^{28}\) In May 1915, Halsey was promoted and appointed to another ship, and he passed the piupiu and tiki over to his successor, Captain John Green. Green was told of the Maori chief’s request and agreed to wear the piupiu and tiki into action; unfortunately Green was more rotund than Halsey and could not wear the piupiu.

**The Collision!**

In between the battles of Dogger Bank and Jutland was a moment of unpleasantness in the Anzac relationship with the collision of *New Zealand* and HMAS *Australia* on 22 April 1916. At the time, both vessels were with the Battlecruiser Force cruising north of Jutland in line abreast. As an anti-submarine measure, they were zigzagging at 16kts every ten minutes. Suddenly thick fog descended off Horn Reef and it seems those in charge of *Australia* debated whether to zigzag by the clock or wait for a flag signal. *New Zealand* held her course and *Australia* turned towards her, hitting the battle cruiser twice causing damage to *New Zealand* that was never properly repaired. *Australia* sustained such damage that she had to go into dry dock for repairs leaving her out action for the forthcoming battle.

The wound to the morale of *Australia*’s ship’s company was such that the Australian Prime Minister Billy Hughes had to visit the jinxed battle cruiser in May to exhort
his Australian sailors. A month later *New Zealand* was chosen as the flagship of Rear Admiral William Pakenham, commanding the 2nd Battlecruiser Squadron comprising *New Zealand* and HMS *Indefatigable*. Normally *Australia* was the squadron flagship but it is fair to say Pakenham wanted to use the ‘lucky ship’ rather than the ill-starred ship that managed to miss all three major engagements. It should be pointed out that Pakenham upon his appointment to command the battlecruiser force in November 1916 was directed to retain *Australia* as his flagship but pointed out that HMS *Lion* was a more suitable ship and he was allowed to move his flag to her.\(^{31}\)

**The Battle of Jutland**

*New Zealand* weighed anchor at 2145 on 30 May and proceeded to sea with the rest of the Battlecruiser Force. Captain Green, while not being able to wear the piupiu, wore the tiki and had a hook for the piupiu mounted in the conning tower where it hung during the battle.\(^{32}\) Just before she entered the battle a rating was seen to climb a ladder to the bridge and on sighting the talismans shouted down ‘it’s all right, he’s got them on’.\(^{33}\) It is suggested that the reason that the ship was hit during the battle was because the piupiu was not worn. Five German battle cruisers were sighted by *New Zealand* at 1526 on 31 May and both forces opened fire at 1553. At the sighting of the German battle cruisers, her donated New Zealand flag was hoisted and kept flying throughout the battle and during the night when the enemy was expected to reappear at any moment.

Shortly afterwards *Indefatigable* received three direct hits and blew up, sinking almost without trace. Lieutenant Boyle, commander of X turret, wondered if *New Zealand*’s turn to blow up was coming. He chose not to tell his crew that two battle cruisers had been lost to catastrophic explosions. He looked out of his slit and noticed:

> I have never seen anything like it as we seemed to be not only fighting the German battle cruisers but most of the High Sea Fleet as well. There were literally miles of ships and the sea was boiling with the falling shells. It seemed utterly impossible that a ship this size could live in this inferno. She did without being hit again.

Following the loss of *Indefatigable*, *New Zealand* received a hit on X turret, from *Von Der Tann*. The turret filled with dense yellow smoke, but no one was injured. At first the turret continued to operate, but then it was found it would not train, so Boyle and a rating went to inspect the roller path, on which the turret revolved. They found a 500kg piece of amour plate on the rollers, which they moved and some splinters which they also removed. However, the turret still would not train and a further inspection was necessary. This revealed some more splinters which when removed cleared the problem. By then the smoke and mist were beginning to have direct affect on the battle, but the German fire was accurate and at 1626 HMS *Queen Mary* received a salvo which caused a massive explosion and that ship went down by the bows as *Tiger* passed to port and *New Zealand* to starboard. A piece of *Queen Mary* that landed on the deck of *New Zealand* when the former blew up is held in the Navy Museum’s collection.
Firing continued, sporadically until about 1730, when all ships were out of range. The gunnery officer in *New Zealand* reported that that around this time the paymaster had come on deck for some fresh air and was standing on the after superstructure when ‘P’ turret opened fire. The blast was such that he lost his trousers. \(^\text{34}\) By 1800, both German battleships and battle cruisers were hotly engaging *New Zealand*, when the battleships of the Grand Fleet were sighted. As evening descended, *New Zealand* and *Indomitable* engaged another enemy vessel that was reported to have hauled out of the line, heeling over and on fire. *New Zealand*’s target was SMS *Seydlitz*, which was hit three times. \(^\text{35}\) Around 2000 a strong shock was felt aboard the ship. The popular explanation was an unexploded torpedo but no damage was reported. \(^\text{36}\) After the Grand Fleet returned to port, Beatty was able to report that *New Zealand* was ready and able to go to sea if required. \(^\text{37}\) At Jutland *New Zealand* contributed to the sinking of two German cruisers. She fired 420 12-inch shells during the battle and it is recorded that she only achieved three hits on her opponents or 0.71 per cent hit rate. Her hits accounted for 9.3 per cent of the total hits scored by British vessels in the battle.

The New Zealand ensign kept flying throughout the battle was badly damaged and was returned to New Zealand in late 1916. \(^\text{38}\) Pieces were cut from it, and given to Captain Green who returned them to the Dominion for exhibition, as well as pieces of the damaged staff, silk jack, and some shell splinters. \(^\text{39}\) After the battle, Jellicoe stated that the probable reason *New Zealand* received only one hit was that her fire had crushed the fire of the enemy. He thought it a sign of good shooting when the enemy did not hit back at the battle cruiser. \(^\text{40}\)

As the news of Jutland reached New Zealand, the proud Dominion celebrated her success. Prime Minister William Massey telegraphed Captain Green:

> The whole Dominion is thrilled with pride at the conspicuous bravery and gallantry displayed by her officers and men. We rejoice that *New Zealand* was in the battle and played a magnificent part...the Dominion knows that British sailors can be depended upon worthily to uphold the fighting traditions of His Majesty’s Navy. \(^\text{41}\)

In response, Captain Green replied:

> Officers and men of HMS *New Zealand* very highly appreciate congratulations from New Zealand. We are all proud to belong to New Zealand’s ship, and to have the opportunity of upholding the honour of the Dominion. \(^\text{42}\)

In the Anzac spirit the Australian Governor-General telegraphed his counterpart in New Zealand and offered Australia’s

> …hearty congratulations to its sister Dominion on the success of the battle-cruiser in action in the North Sea and hopes that the *Australia* will go into action alongside the *New Zealand*. \(^\text{43}\)

One can well imagine the Australian hurt feelings that they missed the Battle of Jutland but they did get a conciliatory visit from His Majesty King George V in early June to
compliment them on their services to the Empire including trying to take New Zealand out of action. The Secretary of State for the Colonies telegraphed the government 'to place on record the debt of the Mother Country to New Zealand for the generosity which enabled the navy to place so valuable a unit in the fighting line'.

A number of personnel from New Zealand received awards for their actions during the battle. Amongst them were Captain Green, who was made a Companion of the Bath and received the French Legion of Honour; the Chief Quartermaster, Chief Petty Officer E Fitzgerald who was awarded the Distinguished Service Medal and Lieutenant David Boyle who was Mentioned in Despatches. The New Zealand press reported that the ship's part in the battle was given prominence in the British papers. Later in 1916, a medal was struck by the New Zealand War Contingent Association for the ship's company to celebrate her part in the battle and sent to the ship for issuing. Many accounts noted at the time that she was ‘singularly fortunate’ and she had come through the fight ‘practically unscathed’. Green, in a letter to a friend in Christchurch, remarked that ‘we certainly bore a charmed life at the Jutland Battle, and I trust we may continue that luck’. The ship’s charmed life was also noted in a meeting of the British Imperial Council of Commerce.

A few days after the battle Boyle wrote to his parents about his part and impressions of the battle:

> The conclusions I draw from the show are that the Huns are very good at the beginning of an action but cannot keep it going. At the end they were rotten and defeated. New Zealand was in the thick of it and came out with hardly a scratch to ship or person. The other ships in the fleet where hit many more times than we were. The sailors say the Maori face we have painted on the central top saved the ship. If we painted it out now I am sure they would mutiny [so] we are not going to try. When the enemy fire you can see the dull red flash of their guns and then a cluster of dots getting bigger and bigger as they tear towards you. One knows it is no good ducking or getting behind anything as the only thing to do is sit still and hope they do not hit you. It is like somebody throwing heavy stones at you whilst you sit still in a chair.

**Post-Jutland Service**

From June 1916 to December 1918, the ‘lucky’ battle cruiser served with the Grand Fleet. The tiki and piupiu remained onboard the ship until war’s end when they were returned to Halsey as a gift. In November 1916, ratings from New Zealand were given the honour of taking the bridal car through the streets of London when Prince George of Battenberg married a Russian countess. Prince George was a gunnery officer in the battle cruiser as well as its movie officer. Sir Joseph Ward, the instigator of the gift, speaking on a visit to the Grand Fleet in 1917 stated that the Dominion had a right to have a voice in the peace terms. He also stated that the Dominions were entitled in the future to equal
responsibility for the Empire navy and it was their duty to provide a large portion of that cost.\textsuperscript{52}

In 1917, Captain Richard Webb replaced Green. He wrote to his brother back in New Zealand that ‘New Zealanders will have every reason to be proud of the vessel’.\textsuperscript{53} In October 1917, the New Zealand High Commissioner visited the battle cruiser and Webb assured him that in all his years of command he had not found a ship with such an imbued spirit of discipline and duty.\textsuperscript{54} The following month the battle cruiser took part in another action in the Heligoland Bight. Reinforcing the 1\textsuperscript{st} Battlecruiser Squadron, she took part in the sweep across the North Sea to a point outside the German minefields. From the accounts, it seems as if she did not play any part in the main action between the fleets and seems to have been an onlooker.\textsuperscript{55} At Christmas, the Admiralty gave permission to fly a flag presented to Captain Webb by Nga Tahu, which was the 1834 independence flag. This was a very unusual and unofficial flag to have flown on a warship of the Royal Navy.\textsuperscript{56} The Christmas card sent to New Zealand in 1917 from the battle cruiser features three ratings drinking from mugs labelled Jutland, Heligoland and Dogger Bank with the motto ‘another little drink wouldn’t do us any harm!’.\textsuperscript{57}

On 21 November 1918, she was present for the surrender of the German High Seas Fleet joined aboard by Australian representatives. The New Zealand flag was displayed at the starboard yardarm for the occasion. The surrendered SMS \textit{Derfflinger} was assigned to \textit{New Zealand} boarding parties.\textsuperscript{58}

**Postwar Career**

In 1919, \textit{New Zealand} went on a world cruise with Jellicoe to visit the Dominions to discuss naval forces. It seems this was a way to get Jellicoe out of the way, something that is confirmed given that he was made Governor-General of New Zealand in 1920. After returning to Britain, the battle cruiser went into the Reserve Fleet. Following the Washington Naval Treaty, she was broken up in 1923. The government did not finish paying for the ship until 1944. A colleague has discovered that in the 1930s and 1940s payments were hidden in the budget for forestry developments. After scrapping, the government asked for parts of the ship and guns. The Admiralty ‘largesse’ was to only allow parts of the ship that were of 1912 vintage to return. Her 4-inch guns were sent back and were used in World War II and after for training.

In conclusion, the Dominion’s gift warship had a proud war service and was indeed a very lucky ship when the fate of the battle cruisers is considered. It is amazing to think that two Royal Navy captains would wear a native grass skirt and a token in a three major naval engagements. This act alone says a lot about the place of talismans in the psyche of a ship’s company in wartime. Despite never visiting home during the war and having few New Zealanders serving in the ship, the gift warship always maintained its identity as a New Zealand battle cruiser through the strong links with the Dominion, reporting in the local papers, fundraising for the men, and personal contacts. At the battles of Heligoland Bight, Dogger Bank and Jutland, the gift ‘battleship’ repaid the
smallest and proudest Dominion with honour and glory. This is because the lucky ship defended the free land, guarded Pacific’s triple star from the shafts and strife of the war at sea, and made the throbbing extremity of the maritime Empire’s praises heard afar.

Endnotes

2. I thank Norman Friedman for the term.
5. This is the best guess of the museum. Te Papa Museum has a large piece of greenstone that was donated and returned to New Zealand when she was scrapped.
6. Diary of Mrs Joan Wood, entry for Monday 4 December 1933 [provided by John Wood]
7. Both men’s medals are in the Museum’s collection.
9. Beatty’s Despatch No. 28948 on the Battle of Heligoland Bight dated 1 September 1914. His flagship was HMS *Lion*.
10. Copy of letter from Lionel Halsey, 17 February 1939.
15. ‘With Jellicoe Sauce!’, *Colonist*, Volume LVI, Issue 13608, 24 October 1914, p. 3
20. ‘The North Sea Fight’, *Grey River Argus*, 4 March 1915 that carried a report of Beatty’s despatch. See also a transcript of Beatty’s Despatch No. 29088 on the Battle of Dogger Bank dated 2 February 1915. HMS *Indomitable* was also given credit for her efforts and was signalled by Beatty in appreciation for its speed.
23. See Beatty’s Despatch No. 29088 on the Battle of Dogger Bank dated 2 February 1915 - his flagship was HMS *Princess Royal*.
that the ‘flag was ready to fly again’. See also ‘Battle and the Breeze’, *Evening Post*, Volume LXXXIX, Issue 112, 13 May 1915, p. 2.


26 ‘Message from HMS New Zealand’, *Dominion*, Volume 8, Issue 2375, 3 February 1915, p. 5. See also ‘How HMS New Zealand Fares’, *Dominion*, Volume 8, Issue 2466, 20 May 1915, p. 6. Halsey sent a letter to New Zealand, which was published expressing the same sentiments he had expressed publicly.


46 *Supplement to the London Gazette*, 15 September 1916.


57 *Hawera & Normanby Star*, Issue LXXIV, 19 February 1918, p. 5.

58 ‘The Armistice Terms’, *Dominion*, Volume 12, issue 52, 26 November 1918, p. 5.
The history of the RAN at sea during World War I (WWI) is not well known and the actions that were fought ashore are even less so. Yet it was ashore in the South-West Pacific, Gallipoli, the Sinai, German East Africa, Belgium and Russia that some more notable actions of the war were fought. Equally important were activities ashore in Australia, throughout the war, by the RAN Brigade in manning the Port War Signal Stations, naval lookout stations, the examination service (checking merchant ships as they arrived in port), providing harbour and wharf patrols and guarding naval installations such as dockyards and wireless stations. This paper will, however, concentrate purely on the overseas activities.

The service ashore by the RAN spanned the globe and the entire period of the war. The first was the capture of German New Guinea in September 1914 and the last was the inclusion of RAN personnel in the British military delegation to Marioupol, in southern Russia, in December 1918. For the Australian navy of WWI the ability to fight ashore was not an odd task as the RAN had inherited, from the Royal Navy, the concept of the Naval Brigade; that is the use of sailors ashore as soldiers when and if required. Thus the RAN was trained and ready to undertake this task when war began in 1914.

During the war there were several instances of the RAN serving ashore on a variety of tasks and not all of these were purely military tasks. They also included diplomatic and constabulary tasks as part of the trinity of maritime operations. The service examined in this chapter includes:

• the New Guinea Expeditionary Force and the capture of German New Guinea in September 1914
• the 1st RAN Bridging Train operating ashore at Gallipoli in 1915 and in the Sinai during 1916-17
• HMAS Pioneer in the German East African campaign of 1915-16 and the use of her crew during military operations ashore
• the punitive expeditions to Malekula (New Hebrides) in October 1916, involving HMAS Una, and October 1918 involving HMAS Fantome
• the Zeebrugge raid on German occupied Belgium on 23 April 1918, which involved men from HMAS Australia
• the humanitarian aid deployment of HMAS Encounter to Samoa and Tonga in November/December 1918 following a pneumonic influenza outbreak
• the naval delegation from HMAS Swan who landed in southern Russia in December 1918.
The German New Guinea Campaign 1914

When WWI broke out the RAN consisted of a fleet manned by 3800 officers and ratings and a reserve force known as the RAN Brigade of 1600 men and 3100 naval cadets. Australia quickly announced it would support Britain with the dispatch of a 20,000 strong expeditionary force to Europe and recruiting commenced for the 1st Australian Imperial Force (AIF). At the same time the Australian government received a request from the British government to take action against the German colonies in the South Pacific; particularly German New Guinea. The AIF was still being formed but the RAN quickly realised that a Naval Brigade could be formed from the many naval reservists in the eastern states. The New Guinea Expeditionary Force (later known as the Australian Naval and Military Expeditionary Force or ANMEF) was raised based upon six companies of naval infantry and a hastily raised force of 1000 military personnel.

This force embarked in the troopship HMAT Berrima in mid August 1914 and on 11 September 1914 it landed at Rabaul in German New Guinea and in a single day of hard fighting defeated the German forces opposing them. The naval reservists bore the brunt of the fighting and the casualties. The ANMEF then formed the garrison for the conquered colony until February 1915 when a military occupation force took over. Of note, a 25-man naval shore party from HMAS Melbourne landed at Nauru on 9 September and destroyed the German wireless station there. A New Zealand military force, escorted by Australian warships, captured German Samoa in late August 1914.

The ANMEF was rapidly recruited from naval reservists based in Queensland, New South Wales, Victoria and South Australia and the infantry battalion of 1000 men (with supporting machine gun, signalling and medical sections) was recruited from New South Wales. Command of the ANMEF was given to Colonel William Holmes, DSO (a veteran of the Boer War of 1899-1902). In a herculean logistics and administrative effort the force was recruited, organised, clothed and equipped by the 14 August and embarked in Berrima on 18 August.

The Campaign begins

Berrima sailed from Sydney on 19 August bound for Port Moresby. By 24 August she was anchored off Palm Island (north of Townsville) where orders were received to wait until joined by the battle cruiser Australia with Rear Admiral Sir George Patey in command. Australia and the French cruiser Montcalm had previously been directed to escort the New Zealand expeditionary force to capture Samoa. While waiting for the return of Australia, the men of the ANMEF conducted various training exercises on Palm Island. News was also received that the ANMEF was to be bolstered by the addition of 500 men, from the North Queensland Kennedy Regiment (a Citizen Military Force unit), that had embarked in the troopship Kanowna and was waiting at Port Moresby.
On 2 September Berrima and her escorting warships, departed Palm Island and proceeded to Port Moresby arriving two days later. Holmes inspected the soldiers from the Kennedy Regiment and found them unsuitable for the campaign ahead (due to their youth, lack of training and poor equipment). He recommended to his superiors in Australia that the regiment be returned to Australia but this was rejected. The campaign started in earnest on 7 September when the ANMEF sailed from Port Moresby (escorted by HMA Ships Sydney, Encounter, Warrego, Yarra, Aorangi and the submarines AE1 and AE2). Kanowna was also part of this convoy but her merchant navy stokers mutinied when they found out they were bound for a war zone and refused to work in the engine room. As a result the Kennedy Regiment was ordered to return to Townsville.  

Australia arrived back in New Guinea waters and rendezvoused with the main convoy at Rossel Island on 9 September for a final planning meeting between Patey and Holmes. Patey was in overall command and issued his final operation order that day for the capture of Rabaul and Herbertshohe. Sydney and three destroyers were dispatched ahead of the main convoy to search Simpson Harbour (Rabaul) for German warships and mines. The size of the German forces in and around Rabaul was not then known but was later estimated to number 300 men of which 50 were German Army reservists, the remainder being native (Melanesian) troops.

The landing

The main convoy arrived off Rabaul at 0600 on 11 September 1914 and, after Parramatta had inspected the harbour and found it to be free of mines, the landings commenced. Australia was positioned at the entrance to the harbour to prevent any attack from German warships but none were in the area. A landing party of 25 naval reservists, under the command of Sub-Lieutenant Charles Webber, RANR was landed at Herbertshohe to take control of the town and at 0730 the Union Jack was hoisted on the flag staff outside the District Officer’s residence. Lieutenant-Commander John Finlayson, RAN accompanied this first group carrying a letter from Patey for the German governor requesting his surrender of Rabaul and outlying districts, but the governor had abandoned Rabaul and moved his seat of government inland to the village of Toma. The letter was handed to a German civilian who advised he would deliver it to the governor; which he did.

Webber then lead his small party inland towards Toma but after sighting several groups of native troops he quickly realised his small force was outnumbered and withdrew to Herbertshohe and waited for the arrival of four companies of infantry and a machine gun section under Lieutenant Colonel WW Watson who landed later in the day. This force then moved eastward to link up with a second landing party.

The second landing party (also of 25 men) under the command of Lieutenant Rowland Bowen, RANR was landed further down the coast at Kabakaul. An army doctor, Captain Brian Pockley and a private also landed with them. This second landing party headed inland along the Bitapaka road, to search and capture a German wireless station known to be in the area. Shortly after they landed a third landing party of 10 naval personnel under
The command of Warrant Officer Samuel Yeo was landed to maintain communications between the landing party and the beach. Bowen’s men began to push inland following a dirt road, but keeping to the side and using the dense jungle as cover.

### The first shots are fired

As they made their way inland two of Bowen’s men became separated from the main group as they traversed the thick jungle and stumbled upon a large force of German native troops, lead by German officers, who had prepared an ambush. Petty Officer George Palmer opened fire on the Germans wounding one of them (Sergeant Major Mauderer) in the right hand. The Germans returned fire and began to retreat, but Mauderer was captured.

The firing alerted Bowen that he had almost been ambushed so he used Mauderer to call upon his comrades to surrender by stating the Australians had landed over 800 men ashore and were now advancing up the road. As a result two German officers were captured, but the bulk of the native troops had scattered inland. Mauderer then had his badly injured hand amputated, without anaesthetic, by Pockley and thus he became the first prisoner of war taken in this campaign.

Midshipman Reginald Buller, RANR (Bowen’s second in command) was sent back to the beach with the three German prisoners and a request for more men to be put ashore. Commander Claude Cumberlege, RAN, in command of *Yarra*, immediately had 60 men (from *Yarra* and *Warrego*) under the command of Lieutenant Gerald Hill, RAN put ashore to assist Bowen with his advance against what now appeared to be well organised resistance from the German forces.

Holmes then ordered that two companies of naval reservists be landed (under the command of Lieutenant Commander Charles Elwell and Lieutenant Thomas Bond, RANR respectively). Commander Joseph Beresford, RAN was placed in overall command of this force which also comprised an army machine gun section and a detachment of army medical personnel. Beresford immediately ordered Elwell’s company forward along the Bitapaka road to link up with the force under Bowen while he consolidated the position at the beach.

While this was happening, Bowen’s landing party continued to push inland and soon came under fire again from German troops located in the jungle. The fighting became confused as the Australians attempted to outflank the various German positions, including several trenches dug across the road, and at about 0930 Able Seaman William Williams was shot in the stomach. Captain Pockley provided immediate first aid to the badly wounded sailor.

Before ordering Stoker Kember and another man to carry Williams back to the beach for evacuation to the *Berrima*, Pockley gave Kember his Red Cross brassard to wear and then he moved forward along the road to link up with Bowen’s party. Shortly after Pockley was also badly wounded by German rifle fire. He was also evacuated to the *Berrima* but
both he and Williams died later that day. Williams from Northcote, Victoria thus having the dubious honour of becoming Australia’s first fatal casualty during the war.

The reinforcements under Hill continued to push forward along the Bitapaka road to link up with Bowen’s forces which they did so at about 1000. While Bowen’s men held the Germans attention by firing at the entrenched troops, Hill’s men commenced a manoeuvre to outflank the German trench. Shortly after the attack began Bowen was shot in the head and badly wounded. Hill took command of both units while Buller was directed to carry Bowen back to the beach and then bring back reinforcements.

Buller located the reinforcements under Elwell and advised them of the situation ahead. As this group of men continued to advance they too came under fire from native troops in the jungle and one man (Able Seaman John Walker, who had enlisted under the surname of Courtney) was killed outright and two other men were wounded (Signalman Robert Moffat and Able Seaman Daniel Skillen). The Australians returned fire killing a number of German native troops. Elwell’s men also found that the road had been mined when one man discovered, by chance, wires connected to a firing mechanism at the base of a tree. The wires were cut and the advance continued. Meanwhile the badly wounded Moffat was carried back to the beach for treatment; but he subsequently died and was later buried at sea.7

The fighting continues

At about 1300 Elwell’s force reached the front line linking up with Hill’s men who had continued the attack on the entrenched German forces. Elwell took command and commenced a two pronged attack on the German trench which consisted of Hill’s men advancing on the left while Elwell decided to lead a bayonet charge on the right. Elwell drew his sword and ordered the charge forward but was shot dead before he had covered more then a few metres, but the charge un-nerved the native troops and the German forces surrendered. Hill once again took command of the Australian forces capturing a number of native troops and the senior German officer in the area, Lieutenant Kempf.

Kempf refused to deal with Hill as he did not believe he was an officer (Hill had lost his cap and shoulder badges in the advance through the jungle) and so the German officer was escorted to the rear and brought before Beresford. After a lengthy discussion Kempf reluctantly agreed to surrender the wireless station and what was left of his defending forces. Beresford directed Lieutenant Bond to take his company, and the army machine gun section, forward with Kempf (and another prisoner, Sergeant Ritter, who spoke English) and advise any German troops they found that the fighting was over in order to avoid further bloodshed.

Bond and his men escorted the two Germans, who were carrying a flag of truce, along the Bitapaka road calling for the other German troops to surrender. There was occasional sniping from the jungle but no Australians were hit and several groups of German troops that were encountered reluctantly surrendered (not surprising as Bond had over 100
heavily armed men under his command and the Germans were in small groups of about 30 men each). Bonds' men had moved forward past two German trenches and were approaching a third when firing broke out.

It appears Ritter had taken the opportunity when the Australian’s were in the open to call upon his comrades in the third trench to open fire and a brief skirmish broke out. Ritter was killed, as were a number of native troops, but Bond lost one man mortally wounded (Able Seaman Harry Street) and two wounded (able seamen James Tonks and Timothy Sullivan - with the later suffering several wounds to his head, chest and left arm). Bond then left his force at the second trench, to secure the area, and pushed on towards the wireless station accompanied only by Kempf, Captain Reginald Travers (an army intelligence officer) and Corporal Conrad Eitel (an interpreter).

**Lieutenant Bond wins the DSO**

Shortly before arriving at the wireless station Bond’s small party encountered a heavily armed force of eight German officers and 20 native troops at a police barracks. Bond strode up to them and called on them to surrender but they refused, but before the Germans could react he quickly snatched the revolvers from the officer's holsters. The native troops could not fire as their officers were between them and the Australians and the Germans were so surprised, by this sudden and irrational act, that they were unable to act to defend themselves and subsequently surrendered. As a result of this action Bond was awarded the Distinguished Service Order (DSO) which became the first decoration won by an Australian in WWI. The citation read:

> On 11 September, 1914 during the attack upon the wireless station, Bita Paka, German New Guinea, Lieutenant Bond displayed conspicuous ability and coolness under fire in leading his men through most difficult country and enforcing the terms of surrender whilst drawing off an attack by another body of the enemy. He showed great daring, when accompanied by only one officer and one man, in suddenly disarming eight Germans in the presence of twenty German native troops drawn up under arms, all of whom were marched off and held prisoners. Later he personally captured five armed natives.⁸

Bond kept the Germans under guard until the ubiquitous Buller arrived with more reinforcements. At approximately 1900 the Australians arrived at the wireless station taking control of it. They found that the Germans had begun destruction of the station and that the wireless masts had been cut through and were being prepared for demolition.

The capture of Bitapaka and the wireless station was complete and several German officers and native troops had been captured in a campaign that effectively lasted a little over 12 hours. The ANMEF had lost two officers (Elwell and Pockley) five reserve sailors killed, and another six men wounded. German losses were one German officer and 30 native troops killed and several others wounded. Apart from Bond’s award of a DSO there were 14 Mention in Dispatches awarded (12 to naval personnel).⁹ Eitel who had
accompanied Bond and Travers received nothing for his efforts.\textsuperscript{10} 

No more fighting took place although the Australian advance on Toma on 14 September was preceded by the shelling of the area by \textit{Encounter} as a show of force. The German governor finally surrendered the colony to Holmes on 17 September 1914. The next few months were spent by the RAN and the ANMEF garrisoning Rabaul and sending armed parties to the outlying areas of New Britain and the north coast of New Guinea to advise the German colonists of the surrender. Ships of the RAN conducted patrols throughout the area for the remainder of the war and the German governor’s steam yacht \textit{Komet}, and its crew of 57 men, was captured by HMAS \textit{Nusa} on 11 October 1914. The ANMEF was gradually replaced by the military Tropical Force (also known as the ANMEF), which remained as the garrison force in New Guinea until the early 1920s. Several members of the RAN Radio Service also served ashore throughout this period maintaining the wireless telegraphy system throughout the isolated colony.

\textbf{The 1\textsuperscript{st} Royal Australian Naval Bridging Train}

Another idea soon put forward to employ the Navy’s many reservists, was to form a RAN Bridging Train (RANBT); a horse drawn engineering unit for service with the Royal Naval Division (RND). The RND was the British answer for the effective employment of a large number of RN reserve and Royal Marine personnel and they later saw service as infantry at Gallipoli and on the Western Front. Lieutenant-Commander Leighton Seymour Bracegirdle, RAN who had recently returned from active service in German New Guinea was given the task of forming this unit. He was ideally suited to the task having seen active service in China during the Boxer Rebellion in 1900-01, while a midshipman in the NSW Naval Brigade contingent. Bracegirdle had also fought in the Boer War as a Lieutenant in the South African Irregular Horse in 1901-02.\textsuperscript{11}

Bracegirdle commenced recruiting naval reservists from every state and set up a camp in the Domain in Melbourne for training. His second in command was Lieutenant Bond, RANR who had also recently returned from Rabaul and Buller also later joined the unit. Three hundred and fifty men were recruited throughout mid March to late May 1915 including several men who had served in China in 1900-01 and German New Guinea. There were also men who had prior service in the RN, RAN and even a few men who claimed prior service in the US Navy.

As well as naval reservists Bracegirdle recruited blacksmiths, saddlers, farmers, stockmen, horse breakers, wheelwrights, coach builders, farriers, carpenters, bridge builders, pearl divers, boilermakers and fitters and turners to man his horse-drawn engineering unit. The training was intense - particularly turning men who had never ridden a horse into accomplished riders and horse-drawn wagons drivers. These were used to carry the unit’s pontoon bridges that would be needed on the western front to ford rivers and streams. Bracegirdle was allocated three Australian Army Service Corps drivers to assist him with this training.
The RANBT was dispatched from Australia on 4 June 1915 and upon arrival in Egypt in late July 1915 it was diverted to the Gallipoli campaign. On 7 August the Bridging Train landed at Suvla Bay (to the north of ANZAC Cove) and commenced pier building operations to support the re-supply of British forces ashore. Bracegirdle set up the main camp for his unit on the northern side of the bay at a small cove which became known as Kangaroo Beach. Over the next few months the Bridging Train took on more and more work as a shore-based engineering unit. This included building and maintaining the wharves, pontoon piers and small harbour facilities at Suvla Bay, unloading the lighters which brought supplies from the island of Imbros, constructing and maintaining a water supply pipeline from the beach to the front line, trench and dugout construction, maintaining a large stockpile of engineering stores, setting up a blacksmith and carpenters workshop, and building a light railway for hand trucks to assist with unloading the stores lighters. The official historian Charles Bean visited the Bridging Train in October 1915 and later wrote ‘If you want to see the work, you have only to go to Kangaroo Beach, Suvla Bay, and look about you. They have made a harbour.’

Much of this work was done under regular Turkish shellfire and two men (Chief Petty Officer Edward Perkins and Able Seaman Driver Charlie Schenke) were killed in action and dozens of others wounded including Able Seaman Driver Colin Atkinson who had his right leg blown off from an exploding shell. Other men suffered from work related injury or diseases such as dysentery and malaria, from which two died. The Bridging Train remained working at Suvla Bay right up until the evacuation in late December 1915. On 16/17 December the bulk of the RANBT was evacuated from Suvla Bay, however, a 50-man detachment under command of Sub-Lieutenant Charles Hicks was kept at Lala Baba (in the southern part of the bay) to maintain the evacuation wharf there that would be used by the rearguard defending the southern sector. Hicks and his men did not leave Suvla Bay until 0430 on 20 December 1915 thus making them the last Australians to leave the peninsula.

Upon return to Egypt in January 1916 the Bridging Train was given control of the swing bridges spanning the Suez Canal. These pontoon bridges were in constant use to allow troops and equipment to cross the Canal and then ‘broken’ at regular times each day to allow ships to transit. It was hard, boring but highly essential logistics work. Morale in the RANBT flagged and in March/April 1916 over 90 men were permitted to transfer to the AIF. Their place was taken by re-enforcements from Australia.

In early December 1916 the Bridging Train provided a 50-man detachment to support the advance along the northern coast of the Sinai. Bracegirdle commanded the group that landed, via lighters, at El Arish on 22 December to build a wharf which would be used to provide logistics support for the advancing Allied forces. While the landing was unopposed, El Arish having been captured the day before, there was still the threat from Turkish mines and long range artillery. After constructing the wharf the detachment returned to the Bridging Train’s main base at Kubri on the Suez Canal on 14 January 1917 and began to prepare for its next task to support the Allied forces advancing into
Palestine. This was, however, not to be as in late March the Australian government approved the disbandment of the unit. Consequently its men were either transferred to the AIF or returned to Australia for discharge. The RANBT became the Australian Navy’s most decorated unit in the war with Bracegirdle awarded a DSO and three Mention in Dispatches with a further 16 Mention in Dispatches awarded to other officers and men.\(^{14}\)

**RAN Personnel on the Western Front**

In 1915 two other proposals to use RAN reservists ashore were considered. In February 1915 Lieutenant Bertie Black, RANR, who had served in the New South Wales contingent in China in 1900-01, proposed the formation of a 300-man RAN Field Gun Battery using 4-inch guns from the de-commissioned light cruiser HMAS *Pysche*. The use of naval field batteries ashore was common practice and several had been employed in the Boer War. The Naval Board thanked him for his proposal but the logistics of forming the unit, shipping it to the Western Front and keeping it supplied with naval ammunition, vice the standard military 18-pounder shells, made the proposal undesirable.\(^{15}\) As it was, *Pysche* was recommissioned in July 1915 and would need her guns.

The second proposal was to create an RAN battalion for service with the Royal Naval Division (RND) on the Western Front. This would require about 1000 men but the availability of personnel was an issue. Instead, a contingent of 300 naval reservists from all states was offered for service with the AIF and these men were allowed to transfer to various AIF units. In July 1915 a group of three RANR officers and 83 ratings, mainly from Victoria and New South Wales, were enlisted in A Company of the 30th Battalion.\(^{16}\) This battalion saw heavy fighting between 1916 and 1918 including the battle of Fromelles in July 1916. Of the 86 RAN reservists who served in the 30th Battalion, 17 were killed in action, over 40 wounded, one man was wounded and taken prisoner at Fromelles, four were decorated for bravery and another four were commissioned from the ranks.

In some cases RAN personnel were allowed to be discharged in order to join the AIF or be loaned to the Army. Officers Cook 2nd Class Fernleigh Bruton was granted a discharge at own request in August 1914 and promptly joined the 1st Battalion AIF. He had a long war, seeing service at Gallipoli and on the Western Front where he was promoted to Lieutenant and winning a Military Cross. He finally succumbed to wounds and illness in 1918. Warrant Officer Gunner Frank Willett was granted leave without pay in August 1915 to join the AIF and became a Lieutenant in the 14th Battalion. On arrival in France in 1916 his gunnery skills were quickly recognised and he was transferred to the 25th Howitzer Brigade. Willett was wounded in action in August 1916 and returned to Australia for discharge in September 1917; he promptly returned to naval service.

A little known reality is that hundreds of RAN ratings deserted in order to join the 1st AIF or New Zealand Expeditionary Force. Dozens of others deserted while overseas and joined the British forces and a few even enlisted in the Canadian and South African forces (deserters from *Melbourne* while in Halifax in October 1915 and from *Pioneer* in
Simons Town in October 1915). Conservative estimates are that one in every 20 men who enlisted in the RAN between 1911 and 1918 deserted to join, or attempt to join, the Army. As a result several ex-RAN ratings found themselves at Gallipoli, the Western Front, the Middle East, New Guinea and one, Ordinary Telegraphist 2nd Class John Edward Boag from Devonport in Tasmania, who deserted from HMAS *Encounter* in 1918, and took on the assumed surname of Redmond later found himself in north Russia in 1919!

A number of others who were medically invalided from the service or discharged as services no longer required also later enlisted in the AIF. Coupled with ex-RANBT transfers, the 300 RAN reservists from the naval re-enforcement battalion (the defunct RAN Battalion) and an estimated 1000 RAN/RAN Brigade personnel found themselves in the Army, by various ways and means. Several were killed or wounded or became prisoners of war and other were decorated for bravery. Most did their job well but as usual some were bad eggs and caused no end of trouble with minor and major crimes or spent months in hospital suffering from the ubiquitous venereal disease.

During the war Warrant Officer Armourer George Prideaux, who was serving in *Australia*, was selected to lead a detachment of ratings for a ‘tour’ of the Western Front. How many men were involved and for how long they were ‘on tour’ as part of a program for naval personnel to see how their army compatriots were serving requires more research. Only one RAN rating is known to have formally served in France under odd circumstances. In March 1918 Able Seaman David Gaff was *en route* from Australia, to join *Sydney*, when he was disembarked from the troopship SS *Wiltshire* at Marseilles suffering from typhoid fever. He was transferred to a small British military hospital at St Germain-au-Mont-d’or (near Lyon) where he died on 4 May 1918 and was buried there.

**HMAS *Pioneer* in German East Africa**

It was not only RAN reservists who saw service ashore. In January 1915 the elderly cruiser HMAS *Pioneer* (under Commander Thomas Biddlecombe, RAN) was dispatched to German East Africa to join a Royal Navy force there that was enforcing a blockade of the enemy coast. Additionally this force was also directed to seek out and destroy the German cruiser *Konigsberg* that had sought refuge upstream in the Rufiji River delta.

*Pioneer* was attached to the northern blockade force in February 1915 where she intercepted native dhows to check their cargoes for contraband. *Pioneer* also protected the shallow draught 6-inch gun monitors used to destroy the *Konigsberg* and bombarded German shore defences. While this was routine and monotonous work, there were moments of excitement. On 20 December 1915, *Pioneer* was anchored in Nazi Bay (now Imbate), south of the Rufiji River and sent a cutter away to collect fresh provisions from ashore. As the boat approached the shore line it was fired upon and two Australian ratings were wounded (able seaman Arthur Snape and Hope Waddell). The cutter withdrew and *Pioneer* bombarded the enemy position with 50 rounds from her 4-inch
guns. Throughout the early months of 1916 Pioneer assisted the advancing British forces by bombarding the ports of Tanga and Dar-es-Salaam.

On 14 August 1916 Pioneer sent several parties of armed ratings ashore under the command of Lieutenant John Bovill and a first aid party commanded by Surgeon Lieutenant Gustave Melville-Anderson, RAN to assist the advancing Allied forces. The military forces were short handed and Pioneer's men were required to garrison the recently captured town of Sadani while the land forces pushed on to capture Bagamoyo some 38 miles to the south. The conduct of the campaign in German East Africa was often one of hit and run raids by the German forces and there was concern that Sadani would be attacked if not properly garrisoned.

At Bagamoyo, Pioneer's boats were part of a flotilla of small craft used to put troops and Royal Marines ashore on the morning of 15 August 1916. The town was captured after 24 hours of heavy fighting. The new commanding officer of Pioneer, Commander Waldemar Wilkinson acted as the beach master for this amphibious landing while Lieutenant Reginald Creer, RAN was put ashore to act as the provost marshal. While in Bagamoyo, Creer 'liberated' a dark blue enamelled German post box with the words *Post-Briefkasten* emblazoned on it and returned it to Australia. This post box is still in operation today at the Wardroom of HMAS Cerberus in Westernport, Victoria.

Pioneer's landing parties remained ashore at Sadani until 19 August when they were relieved by British and Indian troops. Ultimately the men from Pioneer were only ashore for five days but it showed the versatility of the naval forces employed in this campaign. Pioneer eventually returned to Australia in late October 1916 with the unique distinction of having fired more rounds in action then any other RAN warship, during the war, and also having put men ashore in direct support of military operations. Despite being deployed to German East Africa for some 20 months Pioneer suffered only one death, that of Stoker William Bryant who died from dysentery on 7 June 1916 and was buried ashore in Zanzibar (his grave was later moved to Dar-es-Salaam in the 1970s). Surprisingly not a single honour or decoration was awarded to the officers and men of Pioneer.

**The New Hebrides Punitive Expeditions 1916 and 1918**

RAN warships conducted continuous patrols of the South-West Pacific throughout the war and also provided landing parties to assist with maintaining control of the native populations. This was common in the occupied former colony of German New Guinea but there were also two expeditions to the New Hebrides (now Vanuatu) in 1916 and 1918.

HMAS Una, formerly the German New Guinea governor's yacht Komet, was the main vessel in New Guinean waters. She carried out routine patrols and also supported the ANMEF which occupied and controlled the former German colony. In early October 1916 Una (under Commander John Jackson, RAN) was alongside in Rabaul when news was received of the murder of a British trader, Mr RJ Bridges and his four children,
at Bushmans Bay on the north east coast of the island of Malekula in the New Hebrides. The New Hebrides was a jointly administered colony with a combined British and French administration known as the condominium.

The native population in the outlying islands was passively hostile towards their colonial masters and there were often reports of tribal warfare, kidnapping, arms smuggling and cannibalism. Weapons such as Snider and Winchester rifles had been smuggled into the New Hebrides by unscrupulous traders and this added to the friction between the natives and the increasing white population of traders, plantation owners and missionaries. Two previous French punitive expeditions had failed to subdue the native population and there were reports that a native uprising on the island was imminent. A significant show of strength was required.

Una sailed from Rabaul on 10 October 1916. Also embarked were ten New Guinea native police under the command of Major Harry Balfour-Ogilvy, DCM who was the Officer Commanding Native Affairs and Crown Prosecutor in Rabaul; as well as being a highly experienced officer in dealing with difficult native tribes on Bougainville. Una’s orders were to proceed to Vila, the capital of the New Hebrides, and once there link up with the French sloop Kersaint. The two warships were then to proceed to the northern island of Malekula to seek out the rebellious natives who had committed the crime and also carry out punitive measures to remind the natives of the consequences of attacking white settlers. En route men from Una prepared for the impending operation; they dyed their white canvas uniforms a dull khaki colour and were also issued with slouch hats, .303 rifles and ammunition.

After arriving at Vila on 17 October, Jackson met with the French and British resident commissioners to discuss the situation at Malekula but he then had to wait until the Kersaint arrived, from Tahiti, on 22 October for the combined operation to take place. The two commanding officers and Ogilvy then discussed the mission. It was decided to send a reconnaissance party to Malakula under Ogilvy to link up with Mr Ewan Corlette, a French settler who knew the island well. On 30 October 1916, Ogilvy, Petty Officer William Hensby from Una, and four police boys embarked in the steam yacht Euphorsyne and proceeded to an anchorage off Wala Island, Malekula (to the north of Bushmans Bay). The next day several French native police embarked in both warships and steamed to Wala Island; arriving on the afternoon of 2 November.

The operation on Malekula began in earnest at 0300 on 3 November 1916 with the landing of Australian and French seaman and native police. Over the next few days the landing party, lead by Corlette, conducted attacks on native settlements killing at least eight men who resisted arrest and taking one prisoner. The village, of those who had murdered Bridges, was razed in retribution. The landing force, however, did not have it all its own way; one Australian rating, one French sailor and two New Guinea native police were wounded and five French native police were ambushed and killed in brutal bush fighting. The wounded were brought back onboard Una on 5 November and taken to Vila after which Una returned to Malekula.
On 8 November the expedition was abandoned and the two warships returned to Vila. *Kersaint* carried out a show of strength by bombarding Atchin Island, on the north east coast of Malekula, prior to departing the area. Jackson and about 40 per cent of *Una*’s crew, contracted malaria as a result of the expedition to Malekula and Commander William Burrows, RAN was sent from Sydney to assume command of *Una*. On 21 November 1916, *Una* departed the New Hebrides and steamed to Sydney where she arrived on 27 November for a long overdue refit. The punitive expedition could best be described as a draw and the natives on Malekula remained aggressive towards the white settlers.

In late September 1918 a similar incident took place in northern Malekula when a French plantation owner (Mr Marcel Meglia) was killed by natives. The survey vessel HMAS *Fantome*, then at Suva, was dispatched to deal with the situation; *Kersaint* was not available to assist this time. *Fantome* (under Commander John Robins, RAN) arrived at Vila on 2 October 1918 and, following consultation with the British and French resident commissioners, it was decided to land a punitive expedition at Malua Bay, on the north-west coast of Malekula, on 6 October 1918.²⁹

This was not Robins’ first punitive expedition. In 1897 while serving as a Sub-Lieutenant in HMS *Widgeon* he had been part of a punitive expedition to punish the King of Benin (in what is now southern Nigeria) for the massacre of a political expedition. On the morning of 6 October, Robins landed 65 officers and men from *Fantome*, accompanied by the French Resident Commissioner, six French settlers and 18 native guides. The Australians were armed with .303 rifles and two heavy machine guns which were man-handled up a 300 foot escarpment.³⁰ The expedition then seized the high ground overlooking the village of Malua, where the murderers of the French settler were believed to be.

The combined Australian-French force observed natives from the interior had gathered on surrounding ridges and had commenced a long range verbal harangue of the Malua villagers - stating that anyone who surrendered to the white men would be killed. This gave the Australians the impression that the villagers from Malua were innocent of the crime. A French settler and two native guides then bravely went forward to the village demanding the peaceful surrender of the murderers. The Frenchman returned and advised that the natives at Malua were prepared to surrender but were afraid of retribution by the other ‘bush’ natives.

Robins then gave the order for the heavy machine guns to open fire on the abusive natives and almost immediately the natives returned fire with Snider and Winchester rifles. At least a dozen natives were cut down by the heavy fire before Robins ordered the guns to ceasefire, but as the natives continued to fire on his force he reluctantly ordered the heavy machine guns into action again. This killed several more natives and drove the others from the ridge lines. Lieutenant James Marr was then dispatched with 12 of *Fantome*’s ratings and 18 native guides to clear the ridge where several dead natives were found and their rifles retrieved. Robins was again forced to open fire with the machine guns when some of his men were again fired on. The old saying ‘What ever
happens - we have got - the maxim gun and they have not’, was apt on this occasion.

The French Resident Commissioner, who had accompanied the expedition, indicated that he believed that enough punishment had now been inflicted and that the expedition should retire. Robins and his men then returned safely to Fantome. The return journey to Malua Bay was without incident and the French settlers stated the ‘natives had been cowed, it being usual for them to follow the party back, sniping at intervals’. The expedition suffered no casualties. Robins later wrote:

I can commend strongly the behaviour of the ships company; it was their first time under fire (the boys and younger men were very cool and quiet) and in no instance had I cause to reprove any one.31

This was the last punitive expedition undertaken by the RAN during WWI although Australian warships were dispatched to the South-West Pacific during the 1920s to assist with native uprisings in Fiji and the Solomon Islands.

The Zeebrugge Raid 22-23 April 1918

The most dramatic use of naval personnel as landing parties during WWI was the amphibious raid on the German held port of Zeebrugge, Belgium in April 1918. A force of 1800 naval personnel and Royal Marines was gathered from the Grand Fleet in February 1918 and commenced training in different locations throughout southern England.

The plan was to sink three obsolete cruisers as blockships in the Bruges canal, at Zeebrugge, to prevent German U-Boats and destroyers based upstream from using the port. Storming parties were to be put ashore to destroy the German heavy guns and thus allow the blockships to enter the canal. A similar raid was to take place further south at Ostend. German U-Boats from the Flanders Flotilla regularly conducted sorties into the English Channel and approaches to the United Kingdom and, by 1918, were responsible for one third of all Allied merchant ships sunk during the war. The raid was devised by Vice Admiral Roger Keyes and had both an operational objective (to block the channel and prevent German destroyers and U-Boats from gaining access to the sea) but also a strategic goal of improving British morale after the heavy casualties in the Ypres salient in late 1917.

Amongst the hundreds of men involved were 11 men from HMAS Australia. This small group of Australians consisted of:

- Artificer Engineer (Warrant Officer) William Edgar, RAN
- Leading Stoker WJ Bourke, HMS Thetis
- Leading Stoker R Hopkins, HMS Thetis
- Leading Stoker GJ Lockard, HMS Thetis
• Leading Stoker J Strong, HMS *Thetis*
• Stoker NJ McCrory, HMS *Thetis*
• Leading Seaman GJ Bush, A Company Seaman Storming Party
• Leading Seaman DJO Rudd, A Company Seaman Storming Party
• Able Seaman GE Staples, A Company Seaman Storming Party
• Able Seaman HJ Gillard, A Company Seaman Storming Party
• Able Seaman LT Newland, A Company Seaman Storming Party

Throughout February/March 1918 the force of 82 officers and 1698 men was given specialist training at either Chatham for the stokers; and the Royal Marine Barracks at Deal for the seaman. Many of the seaman ratings were formed into 200 man ‘storming parties’ and given instruction in trench warfare, assault tactics, bomb throwing, bayonet drill, and the use of mortars and Lewis machine guns. Others were trained in demolitions which they would carry out during the raid.

It was planned that over 100 vessels including cruisers, destroyers, monitors, submarines and motor launches would be involved in the action. Edgar was allocated to the ex-Liverpool ferry HMS *Iris*, the five seamen to the cruiser HMS *Vindictive* and the five stokers to the old cruiser HMS *Thetis*. *Thetis* was one of the three blockships, to be sunk in the canal, while *Vindictive* and *Iris* were part of the force used to land men on the mole and destroy the German guns.

The attack on Zeebrugge began shortly before midnight on 22 April 1918 and took the German defenders completely by surprise. *Vindictive* went alongside the harbour’s protective breakwater, known as a mole, and her storming party, including the five Australians, began their assault on the German 9.4-inch gun batteries. These and other storming parties clambered across narrow gangways lowered onto the mole and attempted to capture the German guns. They suffered heavy casualties and failed to immobilise all the German defences. Despite being surprised by the attack the German defenders quickly responded and were soon inflicting heavy casualties on the attackers from machine guns located at the end of the mole. Crewmen from German destroyers, alongside the inner side of the mole, joined the resistance firing back at point-blank range with rifle fire.

While this was taking place the three blockships (*Thetis*, *Intrepid* and *Iphigenia*) steamed into the harbour and despite heavy fire from the German guns *Intrepid* and *Iphigenia* reached their allotted positions and were scuttled. Meanwhile the submarine *C3* was manoeuvred into position between two steel pylons underneath the viaduct, connecting the mole with the mainland, and explosive charges were set. The crew abandoned ship and a few minutes later the old submarine exploded severing the connection between the mainland and the mole; thus preventing the Germans reinforcing their units doing battle with the landing force. Among *C3*’s crew was Lieutenant John Howell-Price from Five Dock, Sydney who had joined the Royal Naval Reserve in 1915.
Thetis, which was the lead blockship, was not scuttled in her correct position as she had fouled some nets and buoys on her way into the harbour; she carried these along with her until brought to a halt by them. This, however, effectively cleared the way for the other two blockships to steam into the harbour unimpeded. Throughout this time Thetis was under heavy German fire from the mole which was only 500m away. Once the blockships had been scuttled their crews abandoned ship and proceed to row out of the harbour in the ships boats. And after rowing less then half a mile they were picked up by fast Royal Navy motor launches making good their escape.

The attack however proved to be only a partial success and although the harbour and canal were blocked for several weeks the Germans dredged around the sunken blockships allowing destroyers and submarines to pass by at high tide; albeit with some difficulty. During the attack 214 British personnel were killed and 383 wounded. The Australians were quite lucky as all emerged unscathed despite being in the thick of the action.

The exceptional bravery shown by those who took part in the raid saw the award of 11 Victoria Crosses, 31 Distinguished Service Orders, 40 Distinguished Service Crosses, 16 Conspicuous Gallantry Medals, 143 Distinguished Service Medals and 283 Mentions in Dispatches. The Belgian government also later made a number of awards for bravery. Of the 11 Australians who took part in the raid on Zeebrugge seven were decorated for bravery.

Edgar was awarded the Distinguished Service Cross In recognition of distinguished services during the operations against Zeebrugge and Ostend on the night of 22-23 April 1918. It was due to this officer that HMS Iris kept going during the action under very heavy fire and, though holed several times, succeeded in returning to base under her own steam. He did valuable work in the engine room and boiler room throughout the operation for a period of 17 hours without rest. He showed great bravery when the ship was under very heavy fire, by coming onto the upper deck and with the help of an engine room artificer, turned on the smoke apparatus.

Distinguished Service Medals were awarded to Rudd, Bush and Staples from the Seaman’s Storming Party which conducted the assault on the mole. Staples was one of the storming parties hand bombers but also did good work in bringing wounded back onboard during the closing stages of the action before forming part of Vindictive’s gun crews for the return journey to England.

Newland and Gillard, also from the Seaman’s Storming Party, were Mentioned in Dispatches. McCrory (who had previously served in the RAN Bridging Train at Gallipoli and with the Australian artillery in the AIF, in France) was Mentioned in Dispatches for his service in Thetis. In 1921 both Gillard and McCrory were awarded the Belgian Croix
de Guerre for their service at Zeebrugge.

Interestingly four of the Victoria Crosses (VC) won at Zeebrugge were decided by ballot. The rules for the award of the VC allow for a recipient to be ‘elected’ by his companions present at the action when it is considered that the collective bravery of a unit had earned the decoration. Rudd was one of several men who were deemed to have conducted themselves with great gallantry during the assault and his name went into the ballot. Unfortunately he was not selected and was awarded the Distinguished Service Medal instead. Perhaps this is fortunate as just over 12 months later Rudd was one of five men convicted of being ringleaders in the infamous Australia mutiny. He was sentenced to 18 months imprisonment at Goulburn Gaol - but that is another story.

**HMAS *Encounter* to Samoa in November-December 1918**

In April 1918 the first reports of Spanish Influenza occurred in the media of the day. The disease was erroneously called Spanish Influenza as the first real instance had occurred at a US Army camp in Kansas in early January 1918. The name however stuck due to the disease being first being reported in the Spanish media which, as a neutral nation, was not subject to the censorship laws of the belligerents. US troops had carried the disease to France and it spread quickly amongst the soldiers there due to the close confinement in barracks. Eventually it spread south to Spain where it was first ‘officially’ reported hence its naming.

By the time the pandemic was brought under control in May 1919 an estimated 30 million people had succumbed to the disease including 20,000 Australians. Many returning soldiers brought the disease back to Australia and New Zealand and by November 1918 the disease had also spread throughout the South-West Pacific as the result of sick passengers being carried onboard cargo vessels. In early November 1918 the commanding officer of *Fantome*, then alongside in Suva, Fiji reported that half his crew were bed ridden with the disease.

Hardest hit amongst the Pacific islands was the former German colony of Samoa. Eventually 7200 men, women and children from a population of 36,500 died from the disease. On 19 November 1918 the military governor of Samoa (then under New Zealand control) telegraphed the New Zealand government requesting medical help; his request was turned down as all doctors and medical supplies were required to combat the disease in New Zealand. The request was passed to Australia the next day and, with breakneck speed, the cruiser *Encounter* (commanded by Captain Hugh Thring, RAN) was prepared to sail with medical supplies, additional naval and army surgeons, naval sick berth attendants and army medical orderlies. *Encounter* sailed from Sydney on 24 November 1918.

*Encounter* arrived at Fiji on the morning of 30 November and immediately re-coaled and sailed again that evening. The news from Apia was bad with a reported 50 deaths per day and reports that the disease was now affecting the population of Tonga as well. The
cruiser arrived at Apia on 3 December 1918 and immediately began disembarking the landing party of six surgeons, three sick berth attendants and 18 medical orderlies as well medical supplies and equipment. The Sydney *Daily Telegraph* later reported that the Australian’s were doing a wonderful job gathering up the dead and disposing of the bodies while Lieutenant Francis Temple-Grey, the senior naval surgeon ashore during this time, carried out inoculations amongst the population every five weeks to break the disease cycle.38

Meanwhile *Encounter* sailed on to Tonga where she landed the last of the medical staff and supplies before returning to Sydney on 17 December 1918; and was immediately placed in quarantine. The medical staff put ashore in Samoa and Tonga remained in place until the pandemic had abated and were able to return to Australia in March 1919.39 While not a purely military task this was Australia’s first overseas humanitarian aid mission and again demonstrated the flexibility of naval forces to react to a medical emergency during what was still technically war time.

**The Naval Delegation from HMAS Swan in Southern Russia**

On 11 November 1918 the guns fell silent on the Western Front but in Russia the fighting continued as the Bolsheviks and White Russians struggled for control of the country. The Australian destroyer squadron (HMA Ships *Huon, Parramatta, Swan, Torrens, Warrego* and *Yarra*), that had been operating in the Mediterranean in 1917-18, was sent to the Black Sea as part of the Allied force supporting the anti-Bolshevik forces in southern Russia.

One of these anti-Bolshevik forces were the Don and Kuban Cossacks who had formed their own republics to the east of Ukraine. After the Armistice, the German and Austrian forces in Ukraine were withdrawn and this weakened the opposition to the Bolsheviks in southern Russia. The Allies were keen to support any of the anti-Bolshevik forces and so a mission of enquiry, to identify what support was required, was sent to the Cossack headquarters at Novocherkassk on the Don River.

The Australian destroyer *Swan* (under Commander Arthur Bond, RAN) accompanied the French destroyer *Bisson* on a mission into the Sea of Azov in early December 1918 to report on conditions at Marioupol, Taganrog and the surrounding countryside. The two destroyers embarked a senior Russian officer, Admiral V Kononoff, and transited the Strait of Kertch with often only a foot of water under their keels. After reaching Marioupol, during a snowstorm, Bond and his French counterpart, Captain Jean Cochin, decided to take a small group of personnel by train to Rostof and Novocherkassk to meet General Peter Krasnoff (known as the Ataman or locally elected Viceroy).

On 8 December 1918, Bond with three other Australian officers and six ratings, and Cochin and his staff departed Marioupol and travelled by train to Novocherkassk where they were enthusiastically welcomed by Krasnoff.40 The Allied mission then inspected various military training schools and the shell production factory at Taganrog and was
planning to visit the Cossack front line at Bobrov when a break through by Bolshevik forces caused the visit to be curtailed. The Allied mission then travelled south via Ekaterindor (Kuban Cossack territory) and also met the Russian General Anton Denikin.

Finally Bond and his party arrived back at Marioupol in late December and rejoined Swan which then steamed to Sebastopol where Bond delivered his full report on 26 December 1918; rapidly typed up by Sub-Lieutenant Munro who had accompanied Bond as his official secretary. Of note is that all members of the RAN party were presented awards by Krasnoff, on 14 December 1918, with Bond awarded the Order of Saint Vladimir (4th Class with Swords) the three officers the Order of St Anne (2nd Class) and the six ratings were awarded the Medal of the Order of St Anne. Swan then departed the Black Sea in early January 1919 and, along with the five other Australian destroyers, steamed to Britain for a refit prior to setting out to return to Australia in February 1919.

The report compiled by Bond was presented to British Foreign Office staff but inaction meant that by the time it was properly considered the Don Cossacks were in full retreat and were later defeated by the Bolsheviks.

**Conclusion**

So ends the RAN involvement in operations ashore in WWI. While little known, the men involved saw as much action, if not more, then their counterparts serving at sea. Certainly they received more awards for bravery and service then those who spent their war keeping the vital sea lines of communication open and searching for an often elusive enemy.

The interwar period ahead was to be no different. A landing party from HMAS Sydney was involved in putting down an outbreak of violence in Singapore on 19-20 June 1919 when Chinese citizens conducted a vicious demonstration against the arrival of four Japanese destroyers. In 1920 HMAS Marguerite was sent to Fiji when a strike by Indian plantation workers threatened to turn ugly. During the 1923 Melbourne police strike, men from the fleet were landed to guard Commonwealth buildings and prevent looting. Then in 1925 sailors from HMAS Brisbane were landed in Hong Kong to maintain civil order and operate transport and utility services during a general strike. Finally in October 1927 HMAS Adelaide was dispatched to Solomon Islands to assist put down a perceived native uprising, but all that, as the saying goes, is another story.

**Endnotes**

Lieutenant Commander John Francis Finlayson was the Executive Officer (second in command) of the cruiser Sydney and was later present at her action with Emden on 9 November 1914. Although a Royal Navy officer he had been born at Sydney on 12 May 1883.

Moffat was taken onboard Australia for medical treatment but subsequently died and was buried at sea. The remainder of those who died in the fighting on 11 September 1914 were buried ashore and their bodies are now interred at Bitapaka War Cemetery near Rabaul, New Britain.

Corporal Conrad Constantine Eitel served in the ANMEF as an interpreter from 19 August 1914 until his return to Australia and discharge on 4 March 1915. He enlisted in the 1st AIF on 12 May 1915 but was discharged on 16 July 1915 when it was discovered that he had German parentage (although he had been born in Hong Kong) and at one point in his varied career had actually served for three years in the German Army. He enlisted again under the assumed name of Lionel Lambert Eaton on 27 August 1915 but was later discovered to be Eitel and discharged on 19 December 1915.

Bracegirdle’s DSO was awarded via the London Gazette, 3 June 1916, p. 5570. The various Mention in Dispatches to the RANBT are recorded in the London Gazette, 28 January 1916 (p. 1207), 13 July 1916 (p. 6954) 25 September 1916 (p. 9341) and 6 July 1917 (p. 6773).

30th Battalion 1st AIF Embarkation Roll 1915. Australian War Memorial (AWM 8 23/47/1) and 1st AIF Personnel Records (Series B2455) National Australian Archives.

A group of eight men deserted from Melbourne while she was alongside in Halifax, Canada and joined the Canadian Army. Among them was Ordinary Seaman Alexander ‘Snowy’ Morrison who enlisted as Private Alexander Payne and was killed in action on 9 April 1917 and Ordinary Seaman Leslie Bryant who enlisted under his own name and was killed in action on 23 May 1917.

An article in The Argus, 17 July 1930 (p. 11) refers to Prideaux taking this detachment from Australia to the Western Front but no date is given.

Commonwealth War Graves Commission Register.

Konigsberg was eventually badly damaged by gunfire and scuttled by her crew in the Rufiji River on 11 July 1915. Thirty three of her crew were killed in the action. The remaining 188 crew members removed the ships guns and turned them into a field battery and became part of Colonel Paul von Lettow-Vorbecks forces fighting ashore in German East Africa.

Arthur Snape received a slight gunshot wound whilst Hope Waddell must have received a more significant wound as he was awarded a Wound Stripe. Both men were issued with ‘Hurt Certificates’ which were documentary evidence of injuries received while undertaking naval service.

NAA MP 1185/6 (1919/8917) An account of the movements of HMAS Pioneer during the Great War by Surgeon Lieutenant GA Melville-Anderson.

For a full understanding of the campaign in German East Africa see Edward Paice, Tip and Run: The Untold Tragedy of the Great War in Africa, Phoenix Books, 2008.
in *Pioneer* during the period 8 August 1913 - 16 April 1915) was discharged invalided, with tuberculosis, on 25 November 1915 and died the following October.

25 NAA (A1 1916/29400) HMAS Una Punitve Expedition to Vila.

26 Cannibalism was frequently practiced on Malekula. For further information see Thomas Hartnett Harrison, *Living among Cannibals*, AMS Press, New York, 1979.

27 AWM 36 (Bundle 17/2) HMAS Una Letter of Proceedings (Expedition to Malekula)


29 NAA MP 1049/1 (1918/0623) Punitve Expedition against natives of North Mallicolla, New Hebrides.

30 Robins describes these in his report as maxim guns but noting these weapons were obsolete by the beginning of World War I it is most likely they were the newer Vickers machine guns.

31 NAA MP 1049/1 (1918/0623).

32 There were actually twelve men selected from Australia to take part in the raid. Stoker John W Carter was selected for training but did not take part in the raid.


34 HMS *Vindictive* had some trouble getting alongside the mole and HMS *Daffodil*, another ex-Liverpool ferry, was used to push *Vindictive* up against the mole.


37 Leading Seaman George Edward Staples, born Parkside South Australia 20 April 1896, died 13 August 1920 from influenza.


39 Report of Cruise to render assistance in the influenza outbreak by Commanding Officer HMAS *Encounter* dated 14 December 1918 (held at Sea Power Centre - Australia).

40 The three other officers were Lieutenant John Gordon Boyd, RANR; Engineer Lieutenant George William Bloomfield, RAN; and Paymaster Sub-Lieutenant Douglas Munro, RAN. The six ratings were Chief Petty Officer Stoker Alexander White; Petty Officer John Arthur Neal; Petty Officer Telegraphist Arthur Leslie Swinden; Engine Room Artificer 4th Class Edward Albert Robinson; Officers Steward 1st Class Wilberforce Rostron; and Officers Steward 2nd Class Eric Lord Bouchier.

41 NAA MP 1049/1 (1919/097) Mission to the Don Country, Southern Russia carried out by HMAS Swan and French destroyer Bisson - Report by Commander AGH Bond, RAN.

42 The Australian Torpedo Boat Destroyer Flotilla arrived back in Sydney on 21 May 1919.


Before Federation, Australian colonial marine defence forces with their abundance of ex-Royal Navy (RN) personnel generally followed RN visual signalling (V/S) practice and procedures. There is an apt quote from the 1890 RN Signal Book that applied to a signalman’s traditional skills over many years, namely ‘It is a well known fact that there is scarcely any undertaking of note carried out in the Navy without a signalman being required to assist in it’.1

However bland that statement might have appeared in 1890, in less than 10 years naval communicating would undergo the equivalent of a ‘signals revolution’ in the major contemporary navies and mercantile fleets. Annual RN fleet manoeuvres had progressively established the need to improve upon command and control communications to and from ships in a more timely manner, and V/S, much as it was in the days of Trafalgar now had serious tactical warfare limitations in dense smoke and fog conditions where screens and main body formations with vastly improved weapon and propulsion systems would manoeuvre tactically at high speed and with little room for station keeping error.2 Communications ashore had advanced worldwide with the evolution of the electric telegraph and submarine cable that then enhanced the rapid transfer of strategic information to all continents.

Then very suddenly in 1896, the communications dilemma would begin to be resolved by the work of Gugliemo Marconi who had unravelled the predictions that an electro-magnetic wave generated morse signal could be detected with a form of coherer that no longer depended upon a wired link between the transmitting source and a receptor. It was fortunate that Marconi believed the Royal Navy, then the world’s greatest seafaring nation, would quickly realise the importance of his wireless telegraphy (W/T) inventions.3

Coincidentally the commanding officer of the RN Torpedo School, Captain Henry Jackson, whose torpedo specialisation would subsequently include wireless telegraphy messaging, had begun to experiment in much the same way as Marconi. Their cooperation with wireless telegraphy experiments resulted in the fitting of Marconi W/T sets in several major units during the 1899 RN fleet manoeuvres that proved W/T could be, in modern parlance, a naval warfare ‘game changer’, with relayed signal ranges up to 95 miles between fleet formations achieved. There followed the rapid introduction of W/T, but only into major fleet units in squadrons, flotillas, and in several shore W/T facilities with such speed that by 1901 the RN had some 94 Jackson and Marconi sets in use or scheduled for installation. Already seven sets had been allocated to the China Squadron during the 1900 Boxer Rebellion.4
This allocation would be significant for the future Royal Australian Navy (RAN). In 1900 Captain William Creswell, newly appointed as the Commandant of the Queensland Marine Defence Force and to be the ‘Father of the RAN’, was temporarily released to take his old command, the South Australian gunboat Protector, to the Boxer Rebellion along with some cruisers from the RN Australian Auxiliary Squadron. He would operate for two months with HM Ships Barfleur, Terrible and Goliath that were already scheduled to be fitted with a W/T set and there was a set in the focal Taku Forts, Creswell’s first occasion to observe W/T in warfare.\(^5\)

In the 1901 RN fleet fitting schedule, a W/T set was allocated to HMS Powerful - to be the RN Australian Squadron Commander’s flagship in 1905 - and two sets were specifically reserved for the Queensland government (the only non-RN allocation).\(^6\) It seems that only Creswell could have initiated this purchase noting that he took delivery of these sets in November 1902. Importantly, having observed W/T in use operationally in the RN and with the challenge of communicating along the Queensland coastline, it is not surprising he became involved with the electrical department of the then Brisbane Technical College in a series of riverine W/T trials culminating in increasing the aerial height of the gunboat HMQS Gayundah’s foremast to more than 110 feet by attaching a bamboo topmast to its sail carrying foremast. This equated roughly to the aerial heights in early RN W/T fitted major fleet units.

On 9 April 1903 Creswell conducted the first successful naval over the horizon ship-shore W/T ranging trials to a distance of 25 miles with the first, if \textit{ad hoc}, shore wireless station using a similar aerial in St Mary’s churchyard above the Naval Stores Depot on the Brisbane River. Then on 10 April 1903 the first formal Australian naval ship to shore W/T message was recorded.\(^7\) However a permanent high mast and untuned aerial installation was unsuccessful due to the gunboat’s stability limitations and this reflected the initial difficulty installing Marconi W/T in those small vessels that would form the basis of the Commonwealth Naval Forces (CNF) when Creswell became its first Director in 1904.\(^8\) Furthermore there were then no compatible Postmaster-General’s (PMG) Department coastal wireless stations. The first wireless procedures were established in 1906 at the Berlin International Radio Telegraphic Conference, and lettered channels known as long and medium wavelength ‘tunes’ were agreed worldwide.\(^9\) W/T was now developing rapidly in Europe and the Americas.

Creswell’s struggle to modernise or replace his obsolete ships would begin in the face of an almost bi-annual change of Defence ministers and prolonged government indecision. In the Pacific Ocean, Germany now projected itself as a principal defence threat that included its powerful W/T stations in its mandated Pacific islands and territories. Telefunken was also planning inroads into mainland Australia and by 1909, of some 1500 W/T stations worldwide, 673 were produced by an aggressive Telefunken and 550 by Marconi. It is recorded that one year later Telefunken had installed, ashore and afloat, over 834 stations worldwide.\(^10\) As the early sets operated on only one frequency interference became a serious issue until frequency changing with specified channels, or ‘tunes’, was introduced for naval and commercial use.\(^11\)
With a deteriorating European situation the proven Marconi UK brand would become the definitive choice for RN ships. In 1907 the RN introduced W/T to destroyers with a range of 50 miles when a higher frequency evolved to match their shorter roof aerials. By 1909 the Admiralty controlled an array of long and medium wave local area broadcasts, several ship-shore stations for ships within 500 miles and two fixed services into the Mediterranean.\(^\text{12}\) Creswell’s successive schemes for a future Australian naval force were now consistently predicated upon British ship construction inclusive of the RN wireless fitting standard.

Already RN and commercial wireless reception requirements had begun to diverge with the RN deciding to use aural reception rather than the ‘inker and tape’ system that was prone to throw masses of useless tape over the wireless office and was vulnerable to vibrations induced by gunfire. W/T messages initially known as Marconigrams would become signal messages. In 1907 the CNF followed the RN decision to create a separate W/T specialisation. Later this would lead to a requirement for a new W/T school that was initially at the Williamstown Naval Base and later at the Flinders Naval Depot.

In keeping with the rapid development of improved W/T worldwide including maritime applications, the Australian government passed the *Wireless Telegraphy Act 1905* that was to function under the aegis of the PMG Department. At the time Creswell was reforming the colonial marine forces into the CNF from his small Melbourne office as part of the then combined Department of Defence. It was not until 1909 that a Commonwealth conference in Melbourne resolved to consider, in due course, the first Australasian area wireless stations including Sydney and Doubtless Bay in New Zealand, for merchant shipping and defence purposes. However the PMG had already begun negotiating with Telefunken for high powered stations in Sydney and Fremantle before advising Defence, whose security concerns immediately resulted in a preferred common standard Imperial system that favoured Marconi UK but under PMG control, yet the Telefunken stations were to proceed.\(^\text{13}\)

In December 1910 the first two of three modern British-built destroyers *Parramatta* and *Yarra* arrived in Australia, not with Admiralty pattern W/T, but equipped with ordinary Marconi fixed spark gap sets limited to 300m and 600m wavelengths and a third set was obtained for *Warrego*, this latter packaged ship being rebuilt at Cockatoo Island Dockyard. However, because these Australian vessels were not considered ‘HM ships’ as in the Admiralty/Marconi agreement, without a complex local royalty agreement with Marconi these vessels could only legally communicate with each other and with equipment modifications with the RN Squadron in Sydney. Since the major vessels of the new Australian fleet unit were to arrive before and during 1913 it was clearly an increasingly urgent requirement that a number of reliable coastal wireless stations should be installed around the Australian coastline. Accordingly Prime Minister Cook during a visit to the United Kingdom in 1911 initiated the appointment of Dr JG Balsillie as Engineer-in-Charge of the PMG radio branch that, by 1914, was to establish Marconi coast radio stations which were also to support the navy’s new vessels. This would be a controversial appointment.\(^\text{14}\)
There followed a period of intransigence between the Navy and the PMG. Essentially Creswell and the Australian Commonwealth Naval Board (established in 1911), became frustrated by an inability to agree with the PMG for access to strategic high power W/T sites, furthermore that that PMG could not accept there was a burgeoning war risk in the Pacific, nor did it recognise the military need for new naval procedures for communication’s security. This left Creswell to appoint Electrical Lieutenant FG Cresswell as the first RAN Fleet W/T Officer, who was instructed in 1911 to build a W/T training and backup station in Williamstown Naval Base and a shore wireless station above the Melbourne Navy Office building. The latter operated one area broadcast frequency on 850m and a ship-shore channel on 600m to a limited radius of about 250 miles in daylight hours and often as far afield as Port Moresby at night. In 1912 more capable transmitters were manufactured at the Williamstown Base for the destroyers.

Cresswell comments that the granting of the title Royal Australian Navy on 10 July 1911 by His Majesty King George V then ensured the purchase of interoperable current and modified Admiralty pattern wireless equipments and the issue of classified, especially signal, publications to the Australian Commonwealth Naval Board for the first time as the RAN then became accepted as an adjunct of the RN. Tactical communication training and evolutions between the RAN signal and radio branches then commenced. During these early days adapting civil telegraph procedures to naval W/T applications with primitive and susceptible equipment required considerable adjustment and modification. It would take years to develop valid precedence and security levels as well as standardised message verification procedures for transmission and receipt, wireless discipline and radio silence in a medium prone to overloading, interference and compromise. It would be just prior to World War I (WWI) that the V/S and W/T disciplines almost amalgamated, but this process had to await the end of the war before being realised. The first W/T operators undertook most of their equipment maintenance especially cleaning spark gap components, crystal detectors and aerials. The RAN would again take a lead from RN practice.

The major ships of Rear Admiral Creswell’s fleet unit comprising the battle cruiser Australia, and light cruisers Melbourne and Sydney, and escorting vessels, arrived with formal ceremony in Port Jackson on 4 October 1913 at which point the RN Australian Squadron departed, leaving their old shore W/T facility at Garden Island in Sydney to the RAN.

Within less than a year, the outbreak of WWI found the new fleet unit, arguably after the Imperial Japanese Navy, the next most powerful in the Pacific, half trained for interoperable operations with the RN and wholly inexperienced, yet equipped with a variety of improved Marconi W/T transmitters and receiving sets but no high power shore wireless stations capable of providing a viable Australia Station area broadcast service. The two high power Telefunken stations in Sydney and Fremantle were immediately impounded and generally manned with naval appointed personnel. An Order-in-Council on 3 August 1914 placed all new medium and low powered PMG
Communications at the Outbreak of WWI and their Evolution

shore stations under Australian Commonwealth Naval Board control as the Department of Defence clearly acknowledged that naval requirements were paramount in war, there being no other means of communicating with ships at sea in the northern threat area. A strict censorship of all wireless and cable traffic was also imposed at 2300 on 3 August 1914.

Overseas in the North Sea, plans were immediately activated to cut German submarine cables into the Atlantic. This only occurred in the Pacific with two German submarine cables to Tsingtau (China). Curiously there is no known record of preparations to safeguard Australia’s submarine cables that provided a vital access to Britain from where the Colonial Office and the Admiralty could exercise, by agreed war plans, operational control over Rear Admiral Patey’s fleet. Within days the Admiralty activated war plans for Australian and New Zealand support to seize German mandated territory south of the equator and the high powered German Telefunken W/T stations in Samoa, then Nauru and eventually Bitapaka near Rabaul, the British and Japanese navies disposing of the W/T stations at Yap and Tsingtao.

Cresswell as the Fleet W/T Officer, sailed in the expeditionary force to Samoa and Nauru in Melbourne to temporarily disable both transmitters and reported that when the German wireless operators in Nauru were interrogated they revealed that the Australian Naval and Military Expeditionary Force was tracked between radio stations as it made its way north along the Queensland coast and that the composition and intentions of the force were compromised and thus passed to Vice Admiral von Spee of the East Asia Squadron. Cresswell recorded that both Navy Office and the PMG radio engineer (who deputised for Cresswell), had failed to introduce draft signal war orders for an indirect intercept procedure, whereby a second or adjacent radio station rather than the ship addressed repeated each message as an aid to accurate reception. Thus the RAN ships were obliged, initially, to follow PMG procedures that remained in force for a ship addressed to repeat back each message transmitted by the coastal station using their prewar unclassified call signs. It needs to be said in these early days of radio that advances and improvements were occurring rapidly but it was seen, as it has been over many years, as a ‘black art’ often understood at the time by relatively few senior officers.

We are left to conclude that at the outbreak of war, in the two months when the Fleet W/T Officer was absent in New Guinea waters, there was no skilled naval W/T communications specialist on the staff of Navy Office in Melbourne to control strategic fleet communications. This deficiency was resolved in 1915 when the Australian government ordered that the entire Coast Radio Service be placed under the control of the Naval Board and the Naval Discipline Act with senior staff appointed to the RANR. Cresswell was promoted ‘Radio’ Commander and made Acting Director of the RAN Radio Service until October 1920 when the eventual 22 coastal stations reverted to PMG control.

Cresswell comments in his unpublished papers that Patey ordered W/T silence as the New Zealand Expeditionary Force first approached Samoa in August 1914. Von Spee’s
un-located cruisers Scharnhorst and Gneisenau could be heard signalling to their shore stations the interrogative signal ‘Where is FT?’ (Australia’s peacetime call sign). It was concluded that, seeking to avoid an inevitable engagement with his more powerful adversary, the sudden lack of wireless intelligence contributed to von Spee deciding to leave the western Pacific area with his colliers for South American waters.\(^{21}\)

Radio direction/finding (D/F) was non-existent early in the war except that it was known that some directive properties of a radio signal received by a Bellini-Tosi aerial rig could give a reliable bearing based on the varying signal strength deduced by swinging the ship whilst remaining tuned to a radio signal. Melbourne had such a rig installed in August 1914 that was transferred to Australia.\(^ {22}\) Especially during the first fortnight after war was declared, the coastal wireless stations were monitoring German Pacific frequencies, in particular von Spee’s powerful and focal Yap W/T station, in attempting to locate the East Asia Squadron. Had arrangements been made to coordinate any bearings obtained by the coastal wireless stations with the fleet, the enemy’s location may have been much more accurately defined and targeted before the Yap station was partly destroyed on 12 August 1914. Subsequently von Spee was never located precisely until his force moved out of the western Pacific as intelligence estimates based on ranging by signal strength with fixed aerials were as much as 1000 miles in error.

Prior to the demise of the German East Asian Squadron off the Falkland Islands in December 1914 the Australian government agreed to release Sydney and Melbourne to escort the 1st ANZAC convoy to the Middle East in November 1914 when the German cruiser Emden was destroyed at Cocos Island on 9 November. The W/T and cable station had been temporarily damaged, but not before courageously alerting the passing convoy escorts and convoy which, in accordance with convoy orders, were not exercising complete wireless silence, of the approach of a possible raider. Had Emden intercepted the convoy’s signalling and taken evasive action when approaching Cocos, the history of the action could have been quite different for some troop ships in the then unprotected rear of the 38 ship convoy of 30,000 men.\(^ {23}\) Afloat in 8-10 square miles of ocean as the Emden with highly efficient communications had already apprehended or destroyed 21 allied ships in 3 months.

With the German cruisers in the Pacific destroyed, the Admiralty cabled a request for the fleet to be dispersed and relocated with Australia proceeding to the North Sea, Melbourne to the north Atlantic, Sydney to the south Atlantic, Encounter to the Pacific, the destroyers to New Guinea and then the Mediterranean, and with Pioneer to the east African coast. AE2 would be sent to the Aegean. For the first time, valuable experience would be acquired by V/S staffs from working closely with large formations, and W/T staffs using well established RN long and medium frequency area broadcasts and ship-shore networks, and subsequently a nucleus of skilled operators remained for a generation with the RAN. They would also cross train with their RN colleagues as new W/T equipment, such as the Poulsen arc transmitter and the first valve receiver, was progressively introduced during the later war years.\(^ {24}\) The breakthrough into the high frequency band for worldwide services would have to wait until after 1920.
Thus by 1915 the communication situation had been one where all major vessels in the fleet had varying upgrades of either a main Marconi or locally manufactured radio set and an auxiliary set, the destroyers and below only one set initially, operating in the long and medium frequency band on a ship-shore circuit that was prone to become overloaded or swamped by interference from another theatre especially during the dark hours when transmission ranges could extend thousands of miles. The medium powered PMG radio stations were effective in daylight hours to 300 miles and more than 1000 miles during the dark hours. The ex-Telefunken high power stations at Sydney and Fremantle provided other local area services such as ‘dummy’ signalling.

On a lighter note, in older vessels such as the cruiser *Encounter* with no proper ventilation in improvised W/T compartments, operators would go on duty wrapped in a towel to avoid having the signal pads reduced to sodden paper maché. During the early years, W/T installation morse keys were permanently installed on the right of sets as for right-handed operators that created considerable problems for the left-handed desperate to produce ‘copperplate morse’. During North Sea and Mediterranean operations, ship’s port schedules were inevitably and regularly changed at short notice. It usually fell to the senior W/T operator with the commanding officer present to clear the Wireless Office, encode and transmit the personnel sensitive movements message. However the early spark-gap transmitter alternator emitted such a loud distinctive note that the morse signal could be audible in a nearby compartment where an off-duty operator would conveniently lurk with access later to the fleet code. Hence commanding officers were known to remark how well informed their ship’s companies appeared to be prior to official announcements of program changes.

It would be difficult to assess the singular importance of specific communications events that have contributed in a significant way to Australia’s WWI history. Nevertheless it is suggested at least two signals qualify. The first was probably the first ‘enemy report’ on the Australian Station made by the officer in charge of the Cocos Island cable and wireless station on 9 November 1914. Then there is Hugh Stoker’s crucial but believed un-receipted signal from *AE2* transmitted by Telegraphist William Falconer on the evening of 25 April 1915, the day of the ANZAC and Allied landings at Gallipoli. This message would tell General Hamilton, the Gallipoli theatre commander, that after the transit failure of the surface fleet and two submarine losses, the very first Allied submarine had successfully penetrated the 11 Turkish minefields into the Sea of Marmara, so that the withdrawal of the beleaguered ANZAC force at that moment being contemplated should not be entertained since, *inter alia*, the withdrawal would take several days but that submarines could now follow Stoker’s route causing enormous damage to enemy shipping and would immediately slow down the enemy’s reinforcement efforts by sea. The two RN submarine commanding officers who successfully followed Stoker’s passage into the Sea of Marmara would quickly earn the Victoria Cross. Neither Stoker nor Falconer would know until their repatriation from prisoner of war camps at the end of 1918 that *AE2*’s crucial W/T message had been received and retransmitted by the guardship HMS *Jed* so contributing to establishing the first iconic parables of ANZAC.
Conclusions

Some conclusions may be drawn from the early WWI experiences with signal communications in the RAN, namely:

• As the first major new Commonwealth navy and given early access to classified tactical publications V/S closely followed equivalent RN practices and standards with personnel, signalling equipment including mechanical semaphore, flags and procedures. The telegraphic typewriter was still a generation away.

• Despite an initial misunderstanding between the RN and RAN of Marconi W/T royalty agreements, W/T began to evolve in the RAN with the arrival between 1910 and 1913 of modern units with much improved capability.

• The lack of a specialist radio officer on the Navy Office staff until 1912 compounded misunderstandings between the RAN and the PMG for minimum Defence wireless requirements and for shore terminals in the event of war in the Pacific area. Creswell’s prescient posting of a Fleet W/T Officer to establish in Victoria the first permanent RAN wireless stations in 1912 enabled the new Fleet Unit, upon its formal arrival in 1913, to begin to train for war and operate, in accordance with agreed war plans, under either the Australian Commonwealth Naval Board or the Admiralty’s operational control.

• With the absence of Cresswell from Navy Office, the RAN’s wartime communication’s orders for coastal wireless stations were not brought into force by the Australian Commonwealth Naval Board and the deputed PMG W/T Engineer until the German Pacific threat was eliminated some months later. It was fortunate that the compromise, through inexperience and incorrect procedures, of the disposition and coastal movements of the Australian and New Zealand expeditionary forces to Rabaul and Samoa did not result in an offensive confrontation with a then more tactically informed and determined von Spee.

• After having been the Fleet Commander’s W/T staff officer at the outset of WWI, Cresswell reconfigured two German Pacific radio stations for Allied use. Then as the radio commander (acting director) of the troubled PMG coastal wireless stations from 1915 to 1920, he managed the RAN’s evolving area strategic communication’s network for all Allied naval and mercantile shipping. His experience would be the trigger for the future RAN high capacity Australia Station area radio stations at Canberra and Darwin in time for World War II.

• Plans to support Britain in a European war did not anticipate the requirement to install W/T in numerous mercantile shipping convoys. With the unavailability of radio equipment from Britain it was necessary to acquire the Shaw wireless works in Sydney for a wide range of defence purposes.
Communications at the Outbreak of WWI and their Evolution

Submarine cable traffic to and from Europe carried an estimated 12 million words per annum. It was fortunate that Australian submarine cables at unguarded mainland shore terminal approaches were not destroyed or damaged, as occurred at Cocos Island.

Finally Cresswell, the outstanding, inaugural and long serving W/T officer responsible for establishing the first permanent RAN wireless stations and W/T and Signal School; who successfully re-established key German Pacific W/T stations for Allied use; and controlled, managed and reconfigured the eventual 22 stations comprising the entire Australian coastal wireless station network, rates only one passing mention in the official history of the RAN in WWI. His singular contribution to formative RAN command and control wireless communications in establishing these strategic networks that were so vital to coordinating multinational naval and military operations and intelligence gathering in the western Pacific and Indian oceans seems to have been taken for granted by reporting authority and historians. As a key staff member of the Australian Commonwealth Naval Board, Commander Cresswell continued to serve until 1937 and retired without having been honoured with either a well earned post nominal or commendation.

Endnotes
5 Pocock & Garratt, Origins of Maritime Radio, pp. 41, 56.
7 ‘The Naval Brigade’, Brisbane Courier, 11 April 1903, p. 6.
8 ‘HMAS Protector Unsatisfactory working of W/T set’, NAA(Vic): MP472, 16/15/9610’.
16 Cresswell, ‘RAN Communications in WW1’, para 10
17 Cresswell, ‘RAN Communications in WW1’, para 8.
19 Cresswell, ‘RAN Communications in WW1’, paras 11-12.
20 Cresswell, ‘RAN Communications in WW1’, paras 27 and 29.
21 Cresswell, ‘RAN Communications in WW1’, para 18.
22 Cresswell, ‘RAN Communications in WW1’, para 20.
23 Ernest Scott, Australia during the War, Official History of Australia in the War of 1914-18, vol XI, Angus & Robertson Ltd, Sydney, 1936, p. 67.
24 The Poulsen arc transmitter was the first carrier shift transmitter - the mark character was radiated and the space character dissipated in a ‘back shunt’ circuit of a slightly lower frequency.
26 Cresswell, ‘RAN Communications in WW1’, para 32.
During the period late July to early August 1914, Australian wireless telegraphy (W/T) stations overheard a number of messages being transmitted to and from German warships in the Pacific. The majority of the messages being sent to the German ships were routed through Tsingtau in China, and Yap Island. The station at Yap was described as using, on 31 July, the utmost exertions in attempting to contact SMS *Scharnhorst*.\(^1\) After the transmitter at Tsingtau, the one on Yap was the most powerful German wireless transmitter in the region. The Yap station was also connected to China by an undersea cable jointly owned by the Germans and Dutch. The Dutch wireless station at Siteubondo in Sumatra was also heard relaying messages to the German gunboat SMS *Geier*, which was in Netherlands East Indies waters at that time. The Germans also sent a number of wireless messages to ships, including the *Planet*, via the Australian stations at Port Moresby and Thursday Island.\(^3\)

Two days prior to the outbreak of war, the Australian Commonwealth Naval Board (ACNB) advised the Admiralty that as a result of wireless messages heard by a northern Australian wireless station, they believed that *Scharnhorst*, *Gneisenau* and other German warships were in the vicinity of New Guinea. The monitoring of German wireless traffic continued with the Australian wireless stations reporting the following communications:

<table>
<thead>
<tr>
<th>Station</th>
<th>Intercepted Transmission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Moresby</td>
<td>Nauru to <em>Planet</em>; First mobilisation day. Central</td>
</tr>
<tr>
<td>Thursday Island</td>
<td><em>Scharnhorst</em> communication with Yap and with <em>Nurnberg</em></td>
</tr>
<tr>
<td>Cooktown</td>
<td><em>Scharnhorst</em> communicating with Nauru</td>
</tr>
<tr>
<td>Port Moresby</td>
<td><em>Scharnhorst</em> communicating with <em>Planet</em></td>
</tr>
<tr>
<td>Broome</td>
<td><em>Geier</em> communicating with SS <em>Bochum</em> and with SS <em>Frieberg</em></td>
</tr>
</tbody>
</table>

*Table 1: Monitoring of German wireless communications*

At that point in time, wireless operators believed that they could determine the approximate range and bearing of a transmitter by its signal strength. These judgements, however, were very subjective and an operator varying the power of the transmitter could ensure that any estimate of range was highly inaccurate. Based on this type of estimate it was assumed that the German ships, including *Scharnhorst* and *Gneisenau*, were in New Guinea waters.\(^4\) In fact the German ships were dispersed throughout the Pacific on goodwill and other visits. Vice Admiral Maximilian von Spee, the commander of the East Asia Squadron, was at Ponape with the two armoured cruisers *Scharnhorst*...
and *Gneisenau*. At the outbreak of the war he instructed the other ships of his squadron to join him at Pagan Island where he intended to prepare his force for war. Unaware of the actual locations of the German warships, the ACNB considered that the information provided by the wireless stations might be accurate and so proposed to the Admiralty that HMAS *Australia* be sent to Port Moresby instead of joining the China Station as laid down in the RAN *War Book*. The Admiralty agreed with this proposal. German ships operating from bases close to Australia could have caused major disruption to the sea lines of communication in the Pacific and on Australia’s eastern seaboard, including the sinking of any troopships.

At 2015 on 2 August, the Australian coastal wireless station at Port Moresby overheard the German W/T station on Nauru broadcast the following message ‘Nauru to *Planet*: First mobilisation day. Central’. Two days later Britain declared war on Germany and the RAN moved swiftly to intern all German merchant ships in Australian ports.

Shortly after the outbreak of war, Mr JG Balsillie, the Engineer for Radiotelegraphy at the Postmaster-General’s (PMG) Department, began to forward to the Naval Secretary details of messages intercepted by coastal wireless stations. In a report dated 4 August, he noted that the Dutch stations in Netherlands East Indies, had reduced their transmitting power, possibly in an attempt to reduce the chances of being intercepted, and that Berlin was communicating with *Geier* in Netherlands East Indies waters via the Dutch stations. The authorities in Netherlands East Indies were pursuing a policy of ‘biased neutrality’ similar to that of the United States prior to its entry into both world wars.

During the subsequent weeks a series of reports attempting to fix the position of the East Asia Squadron were forwarded to Navy Office.
<table>
<thead>
<tr>
<th>Date</th>
<th>Reported Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 August</td>
<td><em>Geier</em> has not moved far from her previous position</td>
</tr>
<tr>
<td></td>
<td>Call signs ASA and KCA appear to have moved to south east</td>
</tr>
<tr>
<td></td>
<td><em>Emden</em> heard possibly at Apia. Germans sending cable material via Guam and not Yap</td>
</tr>
<tr>
<td></td>
<td><em>Geier</em> 500-600 miles from Darwin</td>
</tr>
<tr>
<td>6 August</td>
<td>IO, two letter call sign, of <em>Scharnhorst</em> and two ships with her</td>
</tr>
<tr>
<td></td>
<td>Two letter call sign of either <em>Gneisenau</em> or <em>Nuremberg</em></td>
</tr>
<tr>
<td></td>
<td><em>Emden</em> 400-500 miles north west of Yap</td>
</tr>
<tr>
<td></td>
<td><em>Geier</em> 500-600 miles north west of Darwin</td>
</tr>
<tr>
<td></td>
<td><em>Scharnhorst</em> and accompanying ships have not moved</td>
</tr>
<tr>
<td>7 August</td>
<td>Call sign ASB moving away from Australia; in vicinity of Santa Cruz Islands</td>
</tr>
<tr>
<td></td>
<td><em>Geier</em> near Timor</td>
</tr>
<tr>
<td></td>
<td><em>Planet</em> near or in Rabaul, acting as a radio relay ship</td>
</tr>
<tr>
<td></td>
<td>DKT (<em>Komet</em>) near Rabaul</td>
</tr>
<tr>
<td></td>
<td>KCA (Yap) sending to <em>Emden</em>. <em>Emden</em> could be near Yap</td>
</tr>
</tbody>
</table>

Table 2: Reported positions of German vessels

The information concerning the German gunboat *Geier* was broadly correct. This vessel had sailed from Singapore just prior to the outbreak of war and was in waters to the north of Australia. The reported position for *Emden*, however, was inaccurate as she had remained near Tsingtau until 6 August when she sailed for the rendezvous with the remainder of the squadron at Pagan. The presence of two other major warships in company with *Scharnhorst* was detected. The British, however, believed that *Gneisenau* was in the Singapore area as they had incorrectly deciphered a signal which referred to *Geier*, which had sailed from Singapore prior to the outbreak of war. They also thought *Nuremberg* was off Mexico. As for the minor vessels, *Planet* and *Komet*, they were both in the vicinity of Rabaul and the German colonies to Australia’s north. The conflicting, and at times inaccurate, nature of the intelligence being provided to the Australian authorities meant that naval dispositions had to be made in order to protect the most vital maritime assets and these naval forces were unable to take on an offensive role in order to hunt down von Spee and bring him to battle.

By 1914 a sophisticated systems of wireless stations and cable networks had been established throughout the Asia-Pacific region. The British used the cable network complimented by short range W/T. Germany and other countries tended to use higher power W/T stations as they lacked the cable networks.
The long range German communications network in the Pacific was, however, to have a short operational life. The opening campaign was an attack on this maritime based communications network, with both sides engaged in an assault on the command and control networks. The German attacks did little to disrupt the British communications network, while the British attacks on the other hand, completely destroyed the German strategic communications network in the Pacific. Ultimately the only German asset left intact was the cable running from Tsingtau to Yap. This cable was jointly owned by the Dutch and Germans and the Foreign Office did not want to create a diplomatic incident with the Dutch by allowing the Royal Navy to cut it.
Table 3: Attacks on Asia-Pacific communications systems, August - November 1914

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 August</td>
<td>Yap Island</td>
<td>Landing party from HMS <em>Hampshire</em></td>
</tr>
<tr>
<td>30 August</td>
<td>Samoa</td>
<td>NZ Expeditionary Force</td>
</tr>
<tr>
<td>8 September</td>
<td>Fanning Island</td>
<td>Attacked by Germans</td>
</tr>
<tr>
<td>9 September</td>
<td>Nauru</td>
<td>Destroyed by Germans</td>
</tr>
<tr>
<td>11 September</td>
<td>Rabaul</td>
<td>Captured by ANMEF</td>
</tr>
<tr>
<td>26 September</td>
<td>Anguar</td>
<td>Landing party from HMAS <em>Sydney</em></td>
</tr>
<tr>
<td>9 November</td>
<td>Cocos Island</td>
<td>SMS <em>Emden</em></td>
</tr>
<tr>
<td>16 November</td>
<td>Tsingtau</td>
<td>Occupied by Japanese and British forces</td>
</tr>
</tbody>
</table>

Whilst the German communications network was being systematically destroyed the RAN managed to acquire copies of the German HVB [*Handelsverkehrsbuch*] code book and its key.

With the declaration of war, Australian authorities moved quickly to seize all German merchant ships in Australian ports. Not only did the seizure of these ships deprive the East Asia Squadron of potential auxiliary combatants and support ships, it also netted the RAN a number of code books. The ACNB was well aware of the potential value of any code books found and quickly sought details of any taken from the various merchant ships.9 These early code book seizures however, proved to be standard commercial codes of little military value. This situation however, was soon to change. On 9 August the German-flagged steamer SS *Hobart*, unaware that war had broken out, announced its arrival in Australian waters by contacting the coastal wireless station at Esperance. This information was quickly relayed to Navy Office in Melbourne, and an immediate decision was made to try to capture her code books. At this stage there was no indication as to her final destination, which was believed to be either Adelaide or Melbourne.10

Early the following day the ACNB received a message from the Detaining Officer, Fremantle, indicating that a code book and other documents had been seized onboard SS *Greifswald* and arrangements were being made to forward these to Navy Office.11 The response from Navy Office to this message was prompt and curious. The District Naval Officer, Fremantle, was instructed to retain the code book in Fremantle and be ‘prepared to decode messages at Fremantle’.12 The intent appears to have been to use local resources to decipher intercepted German messages. The code book seized on the *Greifswald* was the HVB, one of three code books used by the German navy. This particular book was used for communications between German warships and merchant ships.13 The significance of the capture was that this was the code book that would ordinarily be used by the ships of the East Asia Squadron when communicating with their support ships and possibly the *Etappendienst*, the organisation responsible for organising logistic support for the warships.
At the same time that arrangements were being made to use the code book captured in Fremantle, *Hobart* continued on her voyage. When war broke out, *Hobart* was crossing the Indian Ocean and unaware of the international situation. Although fitted with wireless she either did not keep a wireless watch missing any messages announcing the outbreak of war. As the vessel approached the Western Australia coast on the evening of 8 August, she contacted Esperance coastal wireless station to announce her arrival. The appearance of the unsuspecting *Hobart* presented the Australian naval authorities with a golden opportunity to seize whatever code books and, of equal importance, secret papers she was carrying. In order to ensure that *Hobart* received no word that war had broken out, the various coastal wireless stations were instructed to jamb her wireless as she crossed the Great Australian Bight. This jamming also prevented the Australian coastal wireless stations from listening for transmissions by von Spee’s warships. Once it was realised that *Hobart*’s final destination was Melbourne, arrangements were made to receive her. The District Naval Officer, Captain JT Richardson RAN, put together a boarding team that included two expert searchers from the Department of Trade and Customs. *Hobart* arrived off Melbourne before dawn on 11 August and upon seeing searchlights was hesitant to enter the port. However Richardson and a small party of men had, by this stage, managed to board the vessel and convince the ship’s captain that they were quarantine officials. Once the ship had entered Port Phillip Bay and was anchored under the guns of the coastal forts the trap was sprung. The German officers and crew were rounded up and placed under guard, the ship’s captain though, in the hope he would lead the Australians to the location of his secret papers and code books, was allowed a greater degree of freedom. In the early hours of the morning the German captain, thinking he had the opportunity to destroy his secret documents, slipped out of his bunk and went to their hiding place. But no sooner had he opened the compartment where the safe containing these documents was hidden when Richardson, who had been pretending to be asleep appeared, revolver in hand, to relieve him of the code books, including another copy of the HVB and its key.\(^\text{14}\)

The Admiralty was informed of the capture of these code books on 12 August 1914.\(^\text{15}\) The message advising the Admiralty of their capture also contained information about the disposition of Australian warships. This may have obscured the more important information of the code book capture. However, the message was distributed to a number of staff officers, including the First Sea Lord and chief of staff, so it is inconceivable that nobody highlighted the code book capture.\(^\text{16}\)

In addition to the code book the RAN also captured other secret documents from *Hobart*. One of the documents captured was a set of instructions issued by the Union of Hamburg Shipowners advising ships of the neutral ports they should go to and special routes to take in the event of war. Of particular interest was an instruction advising that ships should make for Punta Arenas, in southern Chile, where they would be given further orders.\(^\text{17}\) In addition to this both ACNB and Rear Admiral Commanding Australian Squadron informed the Admiralty that German colliers departing Sydney had been purchasing navigation charts of South American waters. This was potentially an early indication of von Spee’s ultimate destination.
German vessels in Australian waters were also instructed to make for Netherlands East Indies should war be declared. They were to sail south of Tasmania and avoid the Torres Strait area. 18 Unfortunately for the Germans, few ships were able to carry out these instructions as most had been prevented from sailing prior to the outbreak of war.

Notwithstanding Dutch neutrality in the war there was the distinct possibility that any vessel that reached Netherlands East Indies would still have been fitted out as an armed merchant cruiser or used as a supply ship for other German vessels still at large in the Pacific Ocean. 19 Whether or not the actions of the RAN in searching for and capturing these codes was part of a coordinated British plan designed to capture German code books in the opening stages of a war is not revealed by the extant archival records. If a coordinated British plan to capture and utilise enemy code books did exist then this would almost certainly confirm either the existence of, or intent to establish, a naval cryptographic organisation within the Admiralty prior to the establishment of Room 40.

As a consequence of the successes in capturing the code books on board Hobart and Greifswald, the ACNB issued instructions to all District Naval Officers that any incoming German vessel was to be boarded, using the same ruse. Once the vessels were secured, a thorough search was to be made for any codes or secret documents. If necessary the Captain’s cabin was to be stripped of all furniture and fittings. 20

In addition to the two previously reported copies of the HVB, the RAN appears to have captured copies from Prinz Sigismund and Wildenfels. 21 The ACNB moved quickly in order to obtain a strategic advantage from these books.

The ACNB arranged for Dr F Wheatley, an instructor at the Royal Australian Naval College in Geelong and a German linguist, to join the naval staff in Melbourne and attempt to decrypt the intercepted German messages using another copy of the HVB. The use of Wheatley to decrypt and translate intercepted messages had almost immediate results. On 13 August the Admiralty was advised that a message intercepted on 3 August, and recently decoded, instructed Scharnhorst to proceed to the Mariana Islands.

The ACNB forwarded, on 18 August, a further message to the Admiralty containing the decrypt of a message from Scharnhorst. The message, sent in the evening of 16 August, provided details of the position of the German merchant ship Gottingen. The ACNB also stated in this message that the intercepted German message was in the ‘cyrpher code used for communicating between German merchant ships and German men-of-war’. 22 Again the reference to the German code solicited no response from the Admiralty. A subsequent correction to this signal was sent by ACNB and the Admiralty staff member who deciphered and typed the distribution copy annotated it as referring to the previous signals sent in the ‘cyrpher code used for communication between German merchantmen and men-of-war’. 23

The internal Admiralty distribution of the 18 August signal was to the Duty Captain (in the War Room), Trade Division and E (the meaning of this designation is not known). The second signal includes an annotation that a copy went to the Director Intelligence Division.
In concert with the employment of Wheatley in Navy Office, a decision was made to send one book, and a captured key, to HMAS Australia, in the custody of Mr Jens Lyng. Lyng was a Danish immigrant who was employed in the Navy Works Department as a draughtsman and translator. He had earlier volunteered for overseas service but was refused on the basis of his employment. Lyng was approached by Captain G Smith, Second Naval Member, and asked to take the HVB book to Rear Admiral Patey and remain onboard Australia to act as a translator. He agreed and returned later in the day to collect the book and receive final verbal instructions. Although Lyng’s stated function was to act as a German interpreter, it is highly likely that he would have been responsible for the breaking of any messages, in the HVB code, which were intercepted by ships of the squadron. The advantage of a linguist as a codebreaker is that he can use his linguistic skills to make educated guesses when working on intercepts. By this stage Patey had established an intelligence cell onboard Australia, and Lyng would have worked within this cell.

Unfortunately, because of the Admiralty’s multiple tasks for Australia, Lyng did not have the opportunity to carry out these functions, as shortly after he joined Australia the ship was ordered back to Sydney. But Lyng did not return to Sydney instead transferring to HMAS Berrima on 19 August where he joined the staff of Colonel Holmes, Commander Australian Naval and Military Expeditionary Force, as an interpreter. On 11 September, Lyng was commissioned into the Commonwealth Military Force as a lieutenant and subsequently served as part of the military administration in Rabaul. When contacted after the war by the Official Historian CEW Bean, Lyng provided details on his prior service in Denmark, his employment with the Navy Works Department, and his service with the Naval and Military Expeditionary Force, but no mention was made of his secret and potentially historic cryptographic duties.

In all probability, the man behind these decisions concerning the capture and employment of the German codes was Commander WHCS Thring RAN, Director of the War Staff, which included intelligence matters. Prior to the war, Thring was responsible for writing the RAN War Book, which contained the instructions for placing the RAN on a war footing. Part of the War Book required that the Post Office W/T service be placed under Thring.

Having previously advised the Admiralty of the capture of the German codes and subsequently forwarding details of intercepted messages and apparently receiving no acknowledgement from the Admiralty the ACNB, on 7 September, sent a second, more explicit, message informing the Admiralty of the capture of the code book. In forwarding this message the Naval Board provided greater detail about the code and its uses as well as indicating that a number of German messages had already been read. The Admiralty was also invited to send to Australia any messages it wished to have decoded. The four weeks between the first advice of the capture of the codes and this second message represents a potential missed opportunity for the Admiralty. Earlier response and action might have provided vital information on German movements which
when combined with other information on German intentions could have allowed the Admiralty to reassess the scale of forces needed to protect the various expeditionary forces and release the larger units to concentrate on chasing down and destroying the German warships.  

The Admiralty’s response, drafted by the War Room chief of staff, to this second message was almost immediate. The ACNB was requested to send copies of the code book and key to the Admiralty at the first opportunity. The Admiralty also advised of its intention to send copies of intercepted messages to Australia for decryption. Wheatley organised a team of typists and duplicators to copy the code book. All of these ladies were required to sign secrecy undertakings to ensure they would not reveal the nature of the work they had undertaken. About 50 copies of the code book were sent to the United Kingdom by hand of the master of RMS Maloja on 22 September. Other copies were sent to China, South African, East Indian and New Zealand stations. The previous day the Admiralty had cabled the first of a number of intercepts to Australia for Wheatley to work on using the captured code book and the key he had uncovered. An additional 25 copies were sent to the Admiralty via SS Otway on 30 September.

The ACNB continued to inform the Admiralty of the movements of various German ships. On 13 September the Admiralty was advised that the German merchant ship Tannenfels had been instructed to proceed to the Marquesas Islands (at the eastern edge of French Polynesia). Tannenfels was reputedly carrying some 6000 tons of coal - an extremely valuable commodity for either side. Three days later the Commander-in-Chief China Station advised that Tannenfels had been captured on 14 September in the Basilan Straits, off the western tip of Mindanao. Whether the information contained in the intercepted message aided in the capture is difficult to say as she could have been captured as a result of just plan bad luck having run into a patrolling British ship. Tannenfels had sailed from Singapore on 2 August without appropriate clearances.

German naval messages intercepted by the coastal wireless stations were forwarded to the PMG Department in Melbourne. From there they were taken to the Navy Office and subsequently despatched to Wheatley, who was working on the messages at the RAN College in Geelong. Messages from London were also sent to the College via Navy Office in Melbourne. Notwithstanding the despatch of these intercepted messages to Australia, there is no indication that the RAN was ever formally informed of the existence or activities of Room 40. Nor was there a requirement that the Australians should be so informed. The willingness of the Admiralty to seek Australian assistance in this highly sensitive and important area stands in sharp contrast to the latter attitude of other Imperial agencies which had sought to exclude Australian participation in intelligence matters.

During this early phase of the war the Australian coastal wireless stations were proving a valuable intelligence asset. Not only had they alerted the naval authorities of the approach of Hobart, thereby aiding in the capture of a copy of the HVB code book, but they also intercepted numerous German messages and were active in attempting to
locate and track von Spee’s East Asia Squadron. At first glance these could appear to be minor and fairly ineffectual contributions. But in the final months of 1914 they were important because from the British and Australian perspective the

German ‘East Asiatic Squadron’ exercised an influence in the first months of the war only second to that of the High Seas Fleet. Over a vast area its activity was the controlling influence in [British] dispositions.\(^{35}\)

Deprived of the ability to communicate with Germany and having lost his operating and logistic bases and many of his potential support ships, von Spee made the decision to leave the Pacific via Cape Horn.\(^{36}\) On the morning of 14 September von Spee was sighted for the first time since the outbreak of war. The German ships approached Apia, but having seen a British flag flying departed the area without firing a shot. Patey had predicted that von Spee would head east across the Pacific towards South America. Following Apia, Patey correctly assessed that Tahiti would be the Germans next port of call. Unfortunately, he was not permitted to act on his instinct, probably supported by signals intelligence from Australian sources, and sail east across the Pacific in an attempt to overtake the Germans.\(^{37}\) Having sailed via Suvarov Island and Bora Bora the German ships arrived off Tahiti on 22 September.

Von Spee’s original intention was to capture much needed coal supplies at Tahiti. But the French thwarted his plans by firing the stockpile. In the end von Spee conducted a short bombardment of the island before returning to the vastness of the Pacific. Throughout most of late September reports were received of intercepted wireless messages, attributed to the German ships, and of visual sightings along the South American Pacific coast, of *Leipzig* and another ship believed to be *Dresden*. By this stage it was obvious that the German squadron was heading towards the eastern Pacific with the possible intention of passing through the Strait of Magellan. The movement east of the German squadron appears to have been confirmed by a message intercepted by Wellington Radio on 4 October and subsequently decrypted in Australia indicating that *Scharnhorst* was between Marquesas Island and Easter Island heading east. Both the Admiralty and Patey were informed of this message.

Based on this message the Admiralty concluded, on 5 October, that von Spee was heading towards the South American coast. The naval intelligence officer at Montevideo was informed of this and the Admiralty commenced to concentrate available ships in the region. Subsequently the Admiralty requested that Navy Office forward any intercepted messages indicating the presence of German ships off South America to the intelligence officer at Montevideo so that he could warn British merchant shipping of the German presence in the area.
In late October it was discovered that the Germans, in particular messages from SS Roon to Emden, were using the commercial ABC Code (5th edition) in conjunction with a second code. However it appears that Wheatley was unable to decipher this improvised cryptographic system. At this stage Roon was interned in Netherlands East Indies, however unlike interned British merchant ships the German ships did not have their W/T aerials dismantled and radio rooms sealed.

The messages were thought to be reports on British ship movements.

Even though he had lost his direct means of communicating with Germany, von Spee was not totally without sources of information. The Australian coastal wireless station at Thursday Island intercepted German messages broadcast en clair giving the movements of British and Australian warships. One such message, broadcast on 7 October, indicated that Australia had left Rabaul and was heading east. At this stage Australia, in company with other ships, was en route to Suva, Fiji, a destination reached on 12 October. By the time Australia reach Suva, von Spee was at Easter Island where he was joined by the light cruisers Leipzig and Dresden. Based on the sightings and intercepted messages, Patey began pressing Navy Office and the Admiralty for Australia to be despatched to the east in order to intercept von Spee. The Admiralty, however, fearing that von Spee could still turn west and attack shipping and British possessions in the region would not release him for this task. There was now no chance of Patey and the Australian ships catching von Spee and bringing him to battle. Von Spee sailed on 18 October and on 1 November was intercepted by Rear Admiral Sir Christopher Craddock, Commander-in-Chief South American Squadron, off the Chilean coast near the city of Coronel. In the ensuing running battle the Germans completely outclassed the British sinking HM Ships Good Hope and Monmouth.

Two days prior to the Battle of Coronel the intelligence officer at Valparisio forwarded to Navy Office, Melbourne a lengthy German message which had been intercepted. Initial attempts to decipher the message were unsuccessful. On 1 November another intercepted message was sent to Melbourne from Valparisio. Wheatley recovered the new key and the first message deciphered with this new key was sent to the Admiralty on 2 November. Subsequent deciphered messages contained detailed information on the movements and disposition of British warships, the accuracy of which is not clear. The message also included instructions that a stores ship be sent to meet Sacramento as the Chilean government were proving to be difficult.

The new key and instructions on how to use it were advised to all naval authorities holding copies of the HVB. The following day the ACNB cabled the Admiralty the translations of a number of messages addressed to von Spee, which had been previously intercepted but not deciphered until the new key was broken. The Admiralty subsequently congratulated the ACNB on their success in discovering the new transposition key then in use.
Included in these messages were new instructions to *Sacramento* telling her to go to Mas Afuera Islands. This and other intercepted messages showed that von Spee was breaching Chile’s neutrality by using the Mas Afuera Islands, approximately 660km due west of Santiago, as a logistic base. When *Sacramento* eventually arrived at Valparaiso and the captain claimed he had been intercepted by German ships and escorted to Juan Fernandez Island where he was forced to transfer his cargo of coal to the Germans the Admiralty knew from the previously intercepted and decoded wireless messages that his ‘capture’ and the ‘loss of coal’ had been arranged prior to the vessel sailing from San Francisco and the vessel was in fact one of von Spee’s support ships. Onboard *Sacramento*, when she arrived at Valparasio, were a number of French and Chinese merchant seamen that the Germans had taken from the *Valentine* and *Tinnia*.

The Admiralty had been alerted to the sailing of *Sacramento* on 15 October by a telegram from California. However they decided not to request Foreign Office intervention to prevent the ship’s sailing as to do so would compromise that fact that the German codes were being read. Whilst the HVB may have been a minor code in the scheme of things any suspicion one code was compromised would lead to similar suspicions about the other more important codes.

On 9 November the intelligence officer Montevideo intercepted another long German message. This was sent to Melbourne for decoding. Again this message provided details of arrangements made in an attempt to supply von Spee with coal. In this case it concerned the sailing of the Kosmos Line steamer *Rhakotis*. She apparently sailed from San Francisco carrying excessive amounts of engine room stores, bolts, rivets and iron plates.

Another key change to the HVB occurred on the 14 November. It took Wheatley until 20 November to recover the new key. Details of the new key and its use were advised to the Admiralty on the next day. Messages decrypted using the new key provided information that the Kosmos Line steamers *Luxor* and *Memphis* were instructed to sail on the night of 15 November even if they had not cleared customs and obtained the appropriate clearances. These ships could have been ordered to rendezvous with the German squadron at San Quentin in the Gulf of Penas. The information contained in these messages should have been sufficient to finally convince the British that von Spee was intent on leaving the Pacific and had no plans to conduct some form of maritime guerrilla war against them along the coast of the Americas.

Following the British defeat at Coronel, *Australia* was ordered to join the Anglo-Japanese naval squadron off Mexico in case von Spee sailed north from Valparaiso. The Admiralty still had not fully appreciated that von Spee was attempting to return to Germany and was headed for the South Atlantic. In the meantime a strong naval force had been despatched from England to find and destroy him. After passing into the South Atlantic, von Spee headed towards the British colony and coaling station on the Falkland Islands. Unbeknownst to him the British naval task force had arrived earlier and was at anchor.
On 8 December 1914 the approaching German ships were sighted by the British who weighed anchor and sortied to meet them. In the ensuing battle the German squadron was destroyed. With the defeat of von Spee and the removal of the German naval threat from the Pacific, Australia’s naval cryptographic involvement in WWI was almost over.

In April 1916 the ACNB requested that coastal wireless stations monitor Dutch stations in Netherlands East Indies and forward any messages intercepted to Navy Office for investigation. By the end of April this instruction was rescinded as no useful information was found in the intercepted messages. The exact nature of information being sought was not stated, however, it is likely that it involved either concern over potential German raiders or the activities of Indian separatists, since for the remainder of the war the major interests of the intelligence organisations in the region turned towards internal security matters such as maintaining the British Raj in India and preventing subversive activities by German or pacifist sympathisers. The monitoring of foreign communications by Australian authorities continued into 1918 when the Navy forwarded copies of wireless telegraph messages, to and from Japanese residents in the Pacific, to the Attorney-General’s Department. In the main these messages were either commercial in nature or requests for funds and payments. The radio station at Broome also forwarded details of intercepted Dutch traffic to Navy Office in July 1918.

With the removal of the German naval threat from the Pacific and the focus of Allied military planners firmly fixed on the European and Middle East theatres of operations, the RAN no longer had any strategic requirement to maintain or develop a cryptographic capability. To some extent the RAN found itself in the same position as the RN prior to WWI, aware of the potential of cryptography but lacking the volume of traffic and strategic requirement to justify an investment in significant resources. As a consequence, the pioneering efforts of the RAN in cryptography have been largely forgotten and overshadowed by the achievements of Room 40.

Even if the Australians had desired to maintain a cryptographic capability the Admiralty, in all probability, would have dissuaded them from doing so. The primary reason for this would have been the Admiralty desire to protect the secrets of its cryptography. The creation of Room 40 and subsequent institutionalisation of cryptography in the Royal Navy was well under way by the time of the Battle of Coronel. On 2 November 1914, for example, the Admiralty issued a Confidential Admiralty Monthly Order instructing commanding officers that the dissemination of information derived from intercepted W/T messages should be done under the strictest of conditions.

The rapid capture and exploitation of the German HVB code book by the RAN should have provided the British and Australian navies in the Pacific with a clear advantage in their hunt for von Spee. But a lack of experience in dealing with intelligence originating from the breaking of enemy codes coupled with other competing political and military demands on the available forces enabled von Spee to escape eastward. The high level of secrecy being applied to cryptography, coupled with the lack of a spectacular Pacific naval victory to its credit, no significant investment in infrastructure and no ongoing perceived
strategic requirement resulted in the failure of the RAN to capitalise immediately on its significant beginnings and develop an ongoing cryptographic capability. This failure would hinder the Navy’s future attempts to develop a cryptographic capability for the next 20 years. On the other hand, the outstanding intelligence and operational successes of the RN’s direction finding and cryptographic organisation, especially in the European theatre, during the war ensured that there would be an ongoing strategic requirement for its product. The issue of political control of this important strategic asset was however a matter for future resolution.

The RAN’s participation in this first signals intelligence war highlighted to those involved, in both Australia and Britain, how this small navy could make a significant and important contribution to the collective defence of the Empire through the provision of specialised and skilled personnel and facilities in niche capability areas. Thereafter Dominion navies were seen as having the potential to provide more than just ships and men.

Endnotes
1 The existing official records provide no detail as to whether these were interceptions carried out at the request of the naval authorities or were simply messages which the stations overheard.
2 The National Archives (TNA), ADM137/11 China Telegrams to September 1914.
3 National Archives of Australia (NAA), MP1049, 16/0235, Report of Intelligence Branch, Navy Office, Melbourne on Wireless Messages of German Origins Intercepted by Australian Shore Stations During the Week Preceding the Outbreak of War, May 1916.
4 See AWM36 21 Dairy of Naval Events 1913-1914.
5 NAA, MP1049/1, 16/0234.
6 NAA, MP1049/1, 16/0235 contains extensive details of these reports.
7 This table was compiled from information contained in NAA, MP1049/1, 16/0234 and 16/0235.
8 E von Raeder, Kreuzerkrieg in den Auslandischen Gerwassern, vol 1, das Kreuzergeschwarder, Mittler, Berlin, 1927.
9 See NAA, MP1049, 1914/0351, for copies of telegrams despatched to various Australian ports seeking advice and details of any code books found.
10 NAA, MP1049, 1914/0351, telephone message from Navy Office to District Naval Officer, Port Melbourne, 9 August 1914.
11 NAA, MP1049, 1914/0351, Detaining Officer Fremantle, telegram dated 10 August 1914.
12 NAA, MP1049, 1914/0351, Naval Board telegram dated 10 August 1914.
13 The HVB was also used by U-boats and Zeppelins until 1916. This code was also used by patrol craft, minesweepers, lightships etc operating in the Baltic and Heligoland Bight. See Patrick Beesly, Room 40: British Naval Intelligence 1914-18, Hamish Hamilton Ltd, London, 1982, p. 26.
15 NAA, MP1049, 1914/0351, Naval Board message dated 12 August 1914. In his book Room 40 Beesly states that it was not until 9 September that the Admiralty was informed by the Australians that they had captured these code books (p. 4). In a more recent book by Gannon the same claim is repeated. Gammon also adds the proposition that the RAN wanted to keep the book for their own exclusive use. Gammon’s second assertion is pure fantasy given the fact the RAN was sending copies of decrypts to the Admiralty prior to the second message advising of the code book capture. Paul Gannon, Inside Room 40: The Codebreakers of World War I, Ian Allen Publishing, London, 2010, p. 40.

16 TNA, ADM137/7/1-4 Australasia Telegrams to September 1914, f174.
17 TNA, ADM137/7/1-4 Australasia Telegrams to September 1914, f186.
18 TNA, ADM137/7/1-4 Australasia Telegrams to September 1914, f186.
19 For German plans to conduct cruiser warfare in the Pacific see Jurgen Tampke (ed), Ruthless Warfare: German Military Planning and Surveillance in the Australia-New Zealand Region Before the Great War, Southern Highland Publishers, Canberra, 1998.

20 NAA, MP1049, 1914/0351, Naval Board message dated 13 August 1914.
21 NAA, MP1049, 1914/0351, German Code Book For Use of Merchant Craft in War, minute dated 14 December 1926.
22 TNA, ADM137/7/5 Australasia Telegrams to September 1914, folio 271
23 TNA, ADM137/7/5 Australasia Telegrams to September 1914, f278
24 NAA, MP1049, 1914/0351, Naval Secretary letter dated 19 August 1914.

26 The Admiralty not only wanted to hunt down von Spee, but also provide protection to the Asiatic coast, colonial possessions and associated sea lines of communication. There were unfortunately, not enough ships available to carry out all of these functions. See also Geoffrey McGinley, ‘Divergent Paths: Problems of Command and Strategy in Anglo-Australian Naval Operations in the Asia-Pacific (August-November 1914)’ in David Stevens and John Reeve (eds), Southern Trident: Strategy, History and the Rise of Australian Naval Power, Allen and Unwin, Sydney, 2001, p. 242.

29 WH Thring, Naval Operations in the Pacific in 1914: An Australian Point of View, dated 28 April 1922. Copy held by Naval Historical Section, Canberra.
30 NAA, MP1049, 1914/0351, Navy Office message 1800/7 September 1914.
31 TNA, ADM137/7/7-10 Australasia Telegrams to September 1914, f451. The bottom of the message is annotated that the Naval Intelligence Division had taken action on this message. A second annotation indicates it went to ID Room 43.
32 NAA, MP1049, 1914/0351, Admiralty message 2050/7 September 1914.
33 NAA, MP1049, 1914/0351, German Code Book for Use of Merchant Craft in War, Secretary of Naval Board minute dated 14 December 1926. Beesly implies that the HVB presented the British cryptographers in Room 40 with no great difficulty. He was either unaware or chose to ignore that it was the Australian, Dr Wheatley, doing the code breaking at this stage. See Beesly, Room 40: British Naval Intelligence 1914-18, p. 27.
36 Japan’s declaration of war against Germany on 23 August 1914 was also a contributing factor as von Spee could not hope to match the combined British, Australian, French and Japanese naval forces now arrayed against him in the Pacific.
HMAS *Melbourne* is reported as having heard the German ships very clearly on the nights of 7 and 8 September.


Originally built in 1900 as the Hamburg-American Line ship *Alexandria*, she was transferred to the United States registry and renamed *Sacramento*. For additional background information see also the *Sydney Morning Herald*, 7 September 1934, p. 11.


NAA, MP1049, 14/0351, Admiralty message dated 5 November 1914. The original draft to this message in TNA ADM137/16 bears the initials WSC.

TNA ADM137/16 Australasia Telegrams to December 1914.

See AWM36 50 Movements of German Pacific Squadron for reference to intercepted message re-transfer of coal.

TNA ADM137/16 Australasia Telegrams to December 1914.

See David H Grover *The San Francisco Shipping Conspiracies of World War One* Western Maritime Press, Napa, 1995 for details of German operations based on San Francisco.

NAA, MP1049, 15/021, Movements and Destruction of German Pacific Squadron, by FW Wheatley, dated 5 January 1915.

NAA, CP506/1, 1, Copies of Radiotelegraphic Messages To And From Japanese Residents in the Pacific Intercepted by the Navy Department June 1918.

AWM36 44 Radio Telegraph Station Broome - Signals.

For an insight into Admiralty attitudes towards Australian security see Popplewell, *Intelligence and Imperial Defence*, p. 267.

Testing the Waters: Dogger Bank and Jutland through the Lens of a Command and Control Model

Alexander Kalloniatis

In the epilogue ‘Reflections on a Lost Age’ of Andrew Lambert’s study of 11 famous British admirals, from the 1500s to the 20th century, the author laments:

By the second decade of the twentieth century, global cable and wireless networks enabled political authorities to take the higher strategic direction of war into their own hands. By 1942 admirals were restricted to operational command: the key players operated ashore, surrounded by large staffs, tied to secure communications, and alongside their political masters. It was the end of a unique art.¹

As an analyst at the Defence Science and Technology Organisation, one of my responsibilities is to analyse modern command and control (C2) systems and arrangements, both from human and technical systems perspectives, to understand the human dimension of command in the midst of our sophisticated technical systems for control. To this end, data and models are crucial for me. World War I (WWI) naval warfare is a unique period where the human commander remained a dominant figure, but where technical systems were of a level of sophistication, that comparisons with our era are meaningful, where one could already speak of a ‘socio-technical system’. This paper draws upon data from two of the key naval battles of WWI, those of Dogger Bank (1915) and Jutland (1916), to explore the degree to which the human is visible in the system artefacts - the signals traffic. I build upon an earlier paper in which I presented a command and control model in the context of the Battle of Jutland.² There I argued that properties of the model correlated well with historical analysis of the impact of the character of John Jellicoe, the senior British admiral at Jutland. To that degree, this paper represents a validation of that model in exploring whether the same model exhibits behaviours that may be attributable to the senior commander at Dogger Bank, David Beatty.

The paper is structured as follows. First I will expand on the key question I address in this paper in the context of these naval battles, then define the command and control model and briefly summarise its outcomes for Jutland, along with an overview of that battle. I will then discuss the engagement at Dogger Bank, and the behaviour of the command and control model for that case. The results from this will require a brief return to Jutland, to filter out the aspects led by Beatty there. I will then draw some conclusions and offer a picture of how this model may be useful for the future.
Command and Control: An Individual or a System?

My earliest introduction to the controversies in command and control was in 2007 from an Australian Army brigadier who, upon meeting me as a ‘C2 analyst’, said: ‘What is that? I am the C2 system’. It is easy to understand the source of such a position in the wealth of military tradition and history. Let me focus this on the two leading British admirals of WWI: David Beatty and his immediate superior John Jellicoe.

Lambert, in his aforementioned selection of great British admirals chooses Beatty over Jellicoe. Beatty’s dash and courage were legendary long before WWI. In British operations in the Sudan against Islamic Dervishes in 1896, Beatty stepped up to take command when his superior was wounded in a battle, leading his flotilla up river to outflank enemy Mahdist positions; in an 1897 battle Beatty’s gunboat capsized and sank, so Beatty just got on another and continued the fight. Winston Churchill was First Lord of the Admiralty in the first part of WWI and also famous for his own heroics in the Sudan conflict, saw Beatty as a kindred spirit. Beatty charged up the naval ranks despite his youth. When Beatty took over the Battlecruiser Fleet (BCF) in 1913, he redefined doctrine for cruisers given their improved armour and guns, extending their traditional scouting role to cover a fast flanking role, to join the main battle as a fast wing. Lambert writes:

[Beatty] looked for something more than order and regulation. He emphasized the object, not the method, and stressed the need for initiative.  

But Lambert also balances the picture out, accounting for the flaws in Beatty’s ships and his too-long tolerance through the war of the mistakes of his flag lieutenant, Ralph Seymour:

This was an instructive contrast with Nelson: where Nelson mastered the details before building his system, Beatty did not. Those details were the difference between winning and losing, between true genius and a close-run thing.

Contrastingly, Jellicoe has been judged by historians as ‘risk-averse’. In 1915, on advice from his long-standing advisor on naval gunnery, Frederick Dreyer, Jellicoe changed his Grand Fleet Battle Orders to avoid action within a range of 14,000 yards out of concern for German torpedo capability. Peter Padfield writes:

Jellicoe had shifted … from a thoroughly Nelsonic concept of annihilating the German fleet by weight of close-range gunfire to a defensive compromise based on preserving the status quo. His finely balanced intellect and detailed knowledge of materiel factors on both sides naturally inclined him to caution. … his staff … admired his minute attention to detail and clarity of decision.

Contrastingly, Andrew Gordon expresses Jellicoe’s command and control as ‘psychosomatic’, lacking ‘proactive interest in [the movements] of the enemy’. Lambert, in contrasting Jellicoe and Beatty, describes the former has having ‘been groomed for the role of technocratic executor of other men’s policies’. Thus, while one historian is sympathetic to Jellicoe’s approach and another less so, there is a consistency in their characterisation of Jellicoe’s command and control approach.
So we have a very contrasting picture of two commanders: the courageous, the outcome- and not process-driven, Beatty; and the cautious, the centralising, the process- and details-focused Jellicoe.

But command and control is also a ‘system’ as we understand well in our technologically burdened era today. The case for analysing WWI fleets in the modern era has been made successfully by contemporary writers on sea power, for example Geoffrey Till who identifies a line of battleships very much as a ‘system of systems (to coin a phrase)’.

I have made this explicit in my previous work through a ‘network’ diagram of the Royal Navy fleets based on samples of actual communications within the hierarchy of fleet elements overlaid by samples of signals outside the ‘formal’ structure, which I repeat here in Figure 1. In this diagram white circles represent distinct C2 nodes whereby specific commanders are distinguished from the ships in which they were present. For example, Jellicoe as Commander-in-Chief is represented separately from his flagship Iron Duke. Lines, or links, in Figure 1 represent an example of a signal between the respective nodes. Blue links represent signals along the backbone of the formal structure, from the Admiralty to the Commander-in-Chief, to Beatty with the BCF and his subordinate units, or Jellicoe and the Divisions of his Grand Fleet. Red links signify communications within the branches of the hierarchy while the green links represent examples of cross-hierarchical communications. The ‘complexity’ of this network of interactions is evident by inspection, but could be formalised mathematically.
The Command and Control Model

At a naval history conference it is fitting to start with Alfred Thayer Mahan, who used the terms ‘command’ and ‘control’ interchangeably to describe the dominance of an afloat force over potential adversaries in the maritime environment:

Only by military command of the sea by prolonged control of the strategic centres of commerce, can ... attack be fatal; and such control can be wrung from a powerful navy only by fighting and overcoming it.
Julian Corbett, Mahan’s English contemporary, suggests a more nuanced possibility:

Command of the sea … means nothing but the control of maritime communications, whether for commercial or for military purposes. The object of naval warfare is the control of communications, and not, as in land warfare, the conquest of territory. The difference is fundamental.

Corbett, though beginning with Clausewitz’s ‘War is an act of violence to compel our opponent to do our will’, emphasises the significance of ‘limited’ and ‘defensive’ (as opposed to ‘unlimited’ and ‘offensive’) warfare. This means that there is more to sea command than all conquering navies and decisive battles (for example, the fleet-in-being). Sea power concepts of command and control clearly have something to do with degrees of freedom of action within the maritime environment in tension with denial of corresponding freedom to maritime adversaries.

A similar concern for the means to achieve success against an adversary is expressed in the model by US Air Force Colonel John Boyd - and this brings us closer to the notion of command and control in the aforementioned debate with my brigadier. Boyd proposes the cyclic process of observe-orient-decide-act (OODA), and offers the key to success in battle as getting inside the adversary’s OODA loop.

More often than not, command and control is discussed purely as an introspective ‘own forces’ organisation. NATO and the Australian Defence Force define it as the ‘exercise of authority and direction by a properly designated commander over assigned military forces in the accomplishment of the mission’. A scientifically amenable definition was given by Canadian researchers Ross Pigeau and Carol McCann. They sought to go back to the heart of the command and control system, the human:

Only humans demonstrate the range of innovative and flexible thinking necessary to solve complicated and unexpected operational problems … accept the responsibility commensurate with military success or failure … possess the dedication, drive and motivation to raise merely satisfactory military performance to outstanding levels. As self-evident as this assumption seems (i.e., that only humans command), it is amazing how little effort has been expended in deducing the organizational, psychological and technological implications it entails.

Accordingly, Pigeau and McCann provide the following definitions:

Command: the creative expression of human will necessary to accomplish the mission.

Control: those structures and processes established by command to enable it and to manage risk.

Command and Control: the establishment of common Intent to achieve Coordinated Action.
For Pigeau and McCann, command means ‘to create new or changing structures and processes (where necessary)’ and control is the usage of existing structures and processes to accomplish the mission including ‘to carry out established procedures and adjust procedures according to pre-established plans’.11

Pigeau and McCann address these activities as exercised within and over ‘own forces’. In my previous work I proposed that these definitions may be adapted in application to the adversary. The component of creativity in command means that command of the adversary is the imposition of change upon them - to change the adversary’s structures and processes, say by their destruction, attrition or removal of command nodes. This aligns with Mahan’s notions of command of the sea. Similarly, control of the adversary is the conduct of operations against them within the adversary’s existing structures and processes to achieve influence. Corbett’s concept of sea control as a defensive maritime posture is an example of this.

There is therefore a spectrum between two poles: the adversary and one’s own force. The spectrum has four basic regions: command of the adversary, control of the adversary, control of one’s own forces, and finally their command.

Boyd’s OODA loop model represents another spectrum between poles, from sense-making, decision-making and acting. However, Boyd understood well that orientation was the hardest part, including both relevant and irrelevant questions, confusion and distraction before successful processing and formulation of proposals for action. Nevertheless, the subject of these confusions, questions, information, proposals, decisions and actions may be the adversary (the focus specifically for Boyd) or one’s own forces (to achieve, for example, synchronisation).

In my previous work I was thus led to a model of two dimensions: one axis expressing the orientation (adversary, own forces) and scope of influence of intent (command, control), summarised as Orientation-Scope; and the other axis representing Sense-Decision Making. This is represented in Figure 2. I call this a C2 state space, indicating that every point in the (geometric) space represents a uniquely different state of the command and control system. In this representation, along the vertical axis rather than just the clean Boyd OODA steps, categories such as confusing, questioning, ascertaining (or verifying) are included. The model thus captures some of the fog and friction of war.
At any point in time an actor (a commander or subordinate) in a command and control system may issue an *external artefact* - a signal, a document, spoken words or visual gesture - whose content identifies it with a point in the two dimensional space of Figure 2. The receipt of such an artefact impels elements of the command and control system to undertake actions consistent with the intent of the artefact, often requiring the issuing of their own artefact. The system state thereby changes with time, but also through the changing actions and reactions of the adversary. Over time many such artefacts will be generated by the numerous C2 actors, in disparate parts of the state space. Depending on the time intervals within which such artefacts will be accumulated, the aggregation of points will begin to assume some distribution or ‘hot spot’ in the two-dimensional space according to the predominance of states of the artefacts. One expects that this profile should evolve with the ebb and flow of the engagement with the adversary, the accumulated role of each C2 node in it, and the philosophy of the commander. But which wins - the aggregated system behaviour or the will of the commander? For the latter, some basic positions in Figure 2 can be associated. For example, the top left corner is consistent with the favourite maxim of Patrick O’Brian’s hero Jack Aubrey - ‘never mind manoeuvres: always go straight at ‘em, ha ha ha!’ The top right is the space of the pejorative ‘micromanager’. Military history does not preserve named examples whose incompetence places them in the bottom parts of the diagram.

Figure 2: A two dimensional C2 state space in which an external artefact of a C2 system can be located as a single point in the geometric space
The British Grand Fleet of the Royal Navy, under Jellicoe, engaged with the German High Seas Fleet (HSF), under Vice Admiral Reinhard Scheer, in the North Sea off the coast of Denmark over roughly a 15-hour period from 1600 on 31 May to effectively dawn of 1 June 1916. The British employed a hybrid scouting ‘fleet’ - the BCF of lightly-armoured, fast battle cruisers led by Vice Admiral David Beatty; and a subordinate group of fast well-armoured Queen Elizabeth class battleships of the 5th Battle Squadron (5thBS) under Rear Admiral Hugh Evan-Thomas. The Germans had the First Scouting Group of Vice Admiral Franz Hipper. Jellicoe’s Grand Fleet and Scheer’s HSF were the main fleets, consisting of comparatively slow, heavily armoured battleships.

The German force constituted a Corbett-like fleet-in-being, seeking to frustrate the Royal Navy’s sea command by opportunistically luring parts of the British fleet into localised skirmishes while avoiding a full engagement with the Grand Fleet. The confident British on the other hand, sought to ensnare the entire German fleet in battle. Beatty’s BCF was the bait, with the fast and heavily armoured 5thBS as its ‘sharp end’, with the aim to tie down the HSF long enough for Jellicoe to reach and join the battle. It was important that this take place with sufficient daylight hours left to fight to victory as the British had neither trained for night fighting nor had means of coordinating the fleet at night (normally using flags and semaphore).

On the afternoon of 31 May the British intercepted German signals revealing their venture into the open seas. Within hours the BCF made first contact with the German Scouting Force. Poor management of the 5thBS led to the most powerful guns of the BCF being out of range of the enemy, and then later dangerously exposed to enemy guns - one of the occurrences of the aforementioned Ralph Seymour’s clumsy signalling. Over the afternoon, Beatty’s ships took significant losses but drew the converging HSF and Scouting Group into a ‘run to the north’. As Jellicoe’s main fleet converged with Beatty’s, requests from Jellicoe to Beatty for the location of the enemy were flashed by signal light. Beatty’s response only gave a direction. The BCF then joined with the main fleet as Jellicoe signalled for the full deployment of the entire Grand Fleet into line-of-battle. Jellicoe thus achieved the much desired ‘crossing the T’ of the enemy. But in the 20 minutes this required, the enemy had turned away. Remarkably, Scheer then turned back into the Grand Fleet and had his T crossed again now from the north-west. Scheer let fly with torpedoes in response to which Jellicoe adopted defensive postures. With Scheer’s final turn away, night overtook the fleets. Here Jellicoe erroneously guessed the direction in which Scheer would seek to escape. Nevertheless, the German fleet drifted through the rear of the British with ships colliding or exchanging fire. No information on this, nor interceptions of German signals by the Admiralty, was transmitted to Jellicoe. By dawn, he realised the HSF had escaped and signalled ‘Cease Fire’ shortly before 0400. Though a British tactical defeat, in relative tonnage and lives lost, it was a strategic victory - the Grand Fleet endured, the Royal Navy blockade of the Channel persisted and the HSF remained largely locked into its base at Kiel.
Classifying Signals at Jutland

Using the generic two dimensional C2 state space model described earlier, the signals transmitted by British forces at Jutland are classified. The aim is to associate, for each signal, a numerical value for each dimension of the model.

Beginning with the Orientation-Scope axis, negative values are assigned for signals that are oriented with respect to the adversary, zero to signals relating to the general battlespace environment or neutrals, and positive values for those related to own forces. Large negative values correspond to attack orders which, for Jutland at least, represent the maximum expression of British intent to exert its will over German vessels. Correspondingly, maximum positive values represent maximum exercise of intent to change British forces, the most severe being the transfer of Vice Admiral Burney’s flag with the 1st Battle Squadron. Between these extremal ranges of values signals about other signals are also included, be they of the enemy or from own forces. Signals related to enemy signals fall halfway in the negative range while signals related to those internal to the RN fleets are in the positive range. In Table 1 a detailed list of the numerical scheme for the Orientation-Scope axis is given with illustrative examples from the signals.

<table>
<thead>
<tr>
<th>Orientation-Scope - Signal Description</th>
<th>Value</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attack/Prepare to Attack Generally</td>
<td>-10</td>
<td>Assume complete readiness for action in every respect.</td>
</tr>
<tr>
<td>Attack specific Target</td>
<td>-9</td>
<td>Engage the Enemy’s right from 1 to 4.</td>
</tr>
<tr>
<td>Prepare to attack specific Target</td>
<td>-9</td>
<td></td>
</tr>
<tr>
<td>Manoeuvre towards Enemy</td>
<td>-7</td>
<td>Sweep to the westward and locate the head of the Enemy’s line before dark.</td>
</tr>
<tr>
<td>Manoeuvre away from Enemy</td>
<td>-6</td>
<td>Do not go too near the Enemy’s battlefleet.</td>
</tr>
<tr>
<td>Form Screen</td>
<td>-5</td>
<td>Form submarine screen.</td>
</tr>
<tr>
<td>Prepare to form Screen</td>
<td>-5</td>
<td></td>
</tr>
<tr>
<td>Information/Reply/Question about Enemy State</td>
<td>-4</td>
<td>At 2.30 German Main Fleet in Lat/Long/Course/knots.</td>
</tr>
<tr>
<td>Information/Reply/Question about Enemy Signals</td>
<td>-3</td>
<td>German coded message intercepted from DZ to DR….</td>
</tr>
<tr>
<td>Prepare/Look out for Enemy Specific</td>
<td>-2</td>
<td>Destroyers keep a look out for submarines.</td>
</tr>
<tr>
<td>Prepare/Look out for Enemy General</td>
<td>-1</td>
<td>Keep a good look out for movements of Enemy bearing N by W.</td>
</tr>
<tr>
<td>Information/Reply/Question about Battlespace/Unknowns</td>
<td>0</td>
<td>For CinC. Following weather reports off entrance of Rosyth…</td>
</tr>
<tr>
<td>Prepare/Look out for Own General</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Prepare/Look out for Own Specific</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Information/Reply/Question about Own Signals</td>
<td>3</td>
<td>Did you get signal from CinC to close?</td>
</tr>
<tr>
<td>Information/Reply/Question about Own State</td>
<td>4</td>
<td>My position at 15:15 … Lat/Long/course/Speed.</td>
</tr>
<tr>
<td>Negative of order for movement/attack</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Delegation of Responsibility/Discretion</td>
<td>5</td>
<td>Admiral intends to proceed at …</td>
</tr>
<tr>
<td>Statement of move intent</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Communicate</td>
<td>6</td>
<td>Flag Officers inform their divisions of the situation.</td>
</tr>
<tr>
<td>Adjust own State, not movement</td>
<td>7</td>
<td>Your masthead light is burning.</td>
</tr>
<tr>
<td>Move with reference to Plan</td>
<td>8</td>
<td>Form single line-ahead in sequence of fleet numbers. Course SW</td>
</tr>
<tr>
<td>Move with reference to Space</td>
<td>9</td>
<td>Alter course in succession to S by E.</td>
</tr>
<tr>
<td>Move/Prepare to Move with reference to Own</td>
<td>10</td>
<td>Alter course in succession to SW.</td>
</tr>
<tr>
<td>Encouragement, morale support</td>
<td>11</td>
<td>Remember traditions of glorious 1 June…</td>
</tr>
<tr>
<td>Provide/Prepare to/Offer/Suggest help</td>
<td>12</td>
<td>Pick up men from ship on starboard hand.</td>
</tr>
<tr>
<td>Suggest change unit/structure</td>
<td>13</td>
<td>Submit van of battleships follow battle cruisers. We can cut off whole of Enemy’s battle fleet.</td>
</tr>
<tr>
<td>Change structure</td>
<td>13</td>
<td>I am going to transfer to you in Fearless.</td>
</tr>
</tbody>
</table>

Table 1: Assignment of Orientation-Scope values to types of signals at the Battle of Jutland
The second dimension corresponds to the sense-making/decision state. Maximum positive values correspond to signals seeking sustained, ongoing action while maximum negative values are assigned to signals that have failed to be registered. The numerical system in this direction is given in Table 2 with some example signals.

<table>
<thead>
<tr>
<th>Decision State - Signal Description</th>
<th>Value</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustained Action</td>
<td>6</td>
<td>Keep close to me during the night.</td>
</tr>
<tr>
<td>Immediate Action</td>
<td>5</td>
<td>Open fire and engage the enemy.</td>
</tr>
<tr>
<td>Delayed Action at specified time</td>
<td>4</td>
<td>Report when all ships are in station and correct.</td>
</tr>
<tr>
<td>Preparation/Discretion to Act</td>
<td>3</td>
<td>Prepare to form in single line-abreast to starboard.</td>
</tr>
<tr>
<td>Suggestion to Act</td>
<td>2</td>
<td>Am I to follow you or steer south after fleet?</td>
</tr>
<tr>
<td>Information</td>
<td>1</td>
<td>My position Lat 56° 28’ N, Long 5° 38’ E, course South, speed 17 kn.</td>
</tr>
<tr>
<td>Correcting/disputing Information</td>
<td>-1</td>
<td>Negative. Those ships are our battle cruisers.</td>
</tr>
<tr>
<td>Uncertainty in Information conveyed</td>
<td>-2</td>
<td>An Enemy force, apparently consisting of 7 ships besides destroyers…</td>
</tr>
<tr>
<td>Scrambled information/</td>
<td>-3</td>
<td>CaptD12 to CinC at 01.56: Urgent. Priority. Enemy’s battleships in sight. My position 10 miles astern of 1st BS.</td>
</tr>
<tr>
<td>Not logged as received</td>
<td>-4</td>
<td>CinC at 18.01: Where is Enemy’s BF?</td>
</tr>
<tr>
<td>Question</td>
<td>-5</td>
<td>Did you fire any torpedoes?</td>
</tr>
<tr>
<td>No answer: un-responded question</td>
<td>-6</td>
<td>SO1stBS to Colossus at 18.40: Why are you hauling out of line?</td>
</tr>
</tbody>
</table>

Table 2: Assignment of Sense-Decision Making State values to types of signals at the Battle of Jutland

Plotting each signal for all RN Jutland combatants in the two-dimensional C2 state space now enables one to track, signal-by-signal, moment-by-moment, the state of the system. This is too microscopic a view to be helpful. Instead, aggregating signals over intervals of time enables building up a statistical profile. Conveniently, 13.5 hours transpired from intercept of the German signal on 31 May to the Cease Fire on 1 June. This enables a division of the battle into nine equal 1.5 hour phases. The phases are outlined in Table 3.
Key events fall neatly within these phases.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Time Period</th>
<th>Key events</th>
<th>Number of Signals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1428-1558</td>
<td>German signal intercepted; battlecruiser duel</td>
<td>166</td>
</tr>
<tr>
<td>2</td>
<td>1558-1728</td>
<td>BCF Run to the North</td>
<td>121</td>
</tr>
<tr>
<td>3</td>
<td>1728-1858</td>
<td>‘Where is the Enemy’; Grand Fleet deploys.</td>
<td>199</td>
</tr>
<tr>
<td>4</td>
<td>1858-2028</td>
<td>Clash of the battle fleets; HSF about face.</td>
<td>226</td>
</tr>
<tr>
<td>5</td>
<td>2028-2158</td>
<td>Desperately seeking the Enemy before nightfall.</td>
<td>130</td>
</tr>
<tr>
<td>6</td>
<td>2158-2328</td>
<td>Night as the tails of the fleets intersect.</td>
<td>53</td>
</tr>
<tr>
<td>7</td>
<td>2328-0058</td>
<td>Sporadic night battles.</td>
<td>35</td>
</tr>
<tr>
<td>8</td>
<td>0058-0228</td>
<td>Failure to inform CinC of interceptions.</td>
<td>50</td>
</tr>
<tr>
<td>9</td>
<td>0228-0358</td>
<td>Dawn and the Enemy has escaped; Cease Fire.</td>
<td>184</td>
</tr>
</tbody>
</table>

*Table 3: Nine Phases of the Battle of Jutland from 31 May 31 to 1 June 1916*

**The Command and Control Model for the Battle of Jutland**

The C2 state space model based on the signals over Phase 1 of the Battle of Jutland is depicted in Figure 3. Three ‘hot spots’ dominate this phase. The feature marked ‘A’ represents signals directing immediate action with respect to direction and speed in the Royal Navy fleets: these are signals explicitly directing internal coordination. The next spot is labelled ‘B’ which, from its position in the diagram, is seen to concern signals conveying information about the German ships. Next comes ‘C’ which also concerns information on British fleet elements. Thereafter one observes various weaker peaks. The feature ‘D’ consists of questions regarding the enemy while ‘E’ is dominated by ‘Admirals intends’ signals. The hot spot ‘F’ contains the signals directing attack against the enemy (the battle cruiser duel starts in this period). Notice that in this phase - very much dominated by the efforts of Beatty’s BCF - that Control of Own Forces, peak A, is comparable in size to Information about the Enemy, peak B, both of which overshadow the other peaks, C-F.
At the second phase, which includes the Run to the North, structures A-E reappear in Figure 4. However, peak D, involving questions about the enemy, is barely noticeable: for the BCF there was little to ask given the chase afoot at this stage. Also peak F, the signals ordering attacks, is reduced suggesting that BCF gunnery was self-directed. The Grand Fleet becomes prominent with its deployment and the full fleet-on-fleet action in phase 3, whose C2 state space is shown in Figure 5. Many structures are repeated. Feature A has become dominant reflecting that, with the combined Royal Navy fleets having now converged, the C2 system is overwhelmed by its internal coordination activities. The visible presence of the enemy drives information flows in the smaller peak B. Together with the reoccurring peaks C and E, the feature F reappears, involving signals ordering attacks against the enemy. Note the contrast between coordination (peak A), information (peaks B and C) and orders to attack the enemy.
Figure 4: C2 state space for Phase 2 of the Battle of Jutland

Jutland Phase 2: 15.58-17.28

Figure 5: C2 state space for Phase 3 of the Battle of Jutland

Jutland Phase 3: 17.28-18.58
Phase 4 shown in Figure 6 again reveals mostly familiar structures. However a structure labelled ‘G’, which has thus far been a minor feature, now becomes relatively prominent. The signals herein are those expressing confusion - fog and friction - about the state of various ships given battle damage. But still the largest peaks are composed of signals controlling British forces, peak A, and conveying information about them, peak C. The phase preceding nightfall is seen in Figure 7. The feature G recurs and the peak associated with information about the adversary, B, is considerably weaker than before.

**Jutland Phase 4: 18.58-20.28**

![Figure 6: C2 state space for Phase 4 at the Battle of Jutland](image-url)
In going to the sixth phase, night time, the C2 state space, shown in Figure 8, shows few structures, those evident only conveying information on friend (peak C) and foe (peak B) with no capacity to respond due to the uselessness of flags and semaphore. The next two phases, in Figure 9 and Figure 10, show the system fully degraded. The final phase in Figure 11 sees the rising of the sun and resumption of normal business. The majority of the features are on the right hand part of the space, concerned with updates on British vessels’ movements and status after the night’s ‘blackout’. The dominant of these is peak C as information finally begins to flow on the status of vessels after the events of the night. However, the feature B in Figure 11 corresponds to sightings of German zeppelins, a German cruiser and the tardy Admiralty’s signal of the location of the escaped main German fleet.

**Figure 7: C2 state space for Phase 5 at the Battle of Jutland**
Jutland Phase 6: 21.58-23.28

Figure 8: C2 state space for Phase 6 at the Battle of Jutland

Jutland Phase 7: 23.28-00.58

Figure 9: C2 state space for Phase 7 at the Battle of Jutland
The War at Sea: 1914-18

Figure 10: C2 state space for Phase 8 at the Battle of Jutland

Figure 11: C2 state space for Phase 9 at the Battle of Jutland
In my previous work I gave a range of conclusions that can be drawn from such plots. The two I repeat here are: British command and control at Jutland was too introspective, too little concerned with the adversary; and British command and control at Jutland exhibited too little command, too much control. The first point is evident in the dominance of features in the top right hand quadrant of the diagrams, for example Figure 5 for phase 3 where the Grand Fleet deploys. The one place where a peak concerned with the adversary is mildly strong occurs in Figure 3 for phase 1 where Beatty’s BCF was fully engaged with Hipper’s scouts. The dominance of peaks in the top right hand quadrant very much manifests Jellicoe’s introspective command and control philosophy discussed earlier. The second point, the excess of control over command, is manifest through the few structures at the extreme left and right fringes of the C2 state space through all these plots. I emphasise that my analysis covers signals generated by all participants, not just those of Jellicoe. Nevertheless, the aggregated system behaviour is very much consistent with the philosophy of the commander as established by aforementioned historical analysis.

The Battle of Dogger Bank

The engagement in the vicinity of the English Channel fishing grounds of Dogger Bank took place on 24 January 1915 - a year before Jutland, but barely months after the initial mutual raids of WWI, by the British on the German coast at Heligoland Bight (28 August 1914) and by the Germans on the English east coast at Scarborough (16 December 1914). On 23 January 1915, Room 40 in the British Admiralty picked up German traffic indicating intentions for Hipper’s Scouting Group to raid British fishing vessels at Dogger Bank the next day. This information was conveyed to Jellicoe, at 1410 that day, and Beatty was cut orders to intercept Hipper.

Beatty’s BCF of 5 battle cruisers, 7 light cruisers and destroyer flotillas (on this occasion excluding Evan-Thomas’ 5thBS) sighted Hipper’s force at 0705. Hipper’s forces included the aged Blücher, which slowed down the effort to escape, ordered at 0735. By 0852 the Germans were in range, and Beatty’s flagship, Lion, commenced fire. British fire concentrated on Blücher and Seydlitz, but the Germans gave as good as they got, with Derfflinger hitting Lion at 1018. By 1047 Hipper had abandoned Blücher, but the sustained strikes on Lion disabled Beatty’s flagship to such an extent it could only signal by flags. Beatty decided to transfer his flag, but nonetheless issued orders from Lion around 1110 and 1112 in two signals, one ‘Course NE’, and the other ‘Engage Enemy’s Rear’, flown concurrently on the same hoist - again, errors by Beatty’s flag lieutenant Ralph Seymour. Rear Admiral Moore in New Zealand, now the acting commanding officer, interpreted this to mean that the BCF should focus its fire on the crippled Blücher. Exasperated at the misunderstanding and lacking the equivalent of Nelson’s signal at Trafalgar ‘Engage the enemy more closely’, Beatty ordered ‘Keep nearer to the enemy’, but by now Moore was too distant to read the flags. Hipper escaped with his premier vessels, as Moore signalled ‘Cease Firing’ at 1202 and, 13 minutes later Beatty raised his flag on Princess Royal.
Apart from issues with signalling protocol and interpretation, what is evident here is, on the one hand Beatty’s aggression (with his flag ship leading the initial gunnery), but on the other hand his attempts to control his force. Which wins out in a statistical C2 analysis, such as that applied above for Jutland?

Data, the Command and Control Model for Dogger Bank and a Catch

The source for data now comes from the 1921 Admiralty Naval Staff Monograph covering most of the smaller engagements of WWI; Appendix A covers the telegrams and signals from the lead up to the aftermath of the Battle, while Appendix B gives the 88 signals in the critical period 1027 to 1113. However the despatches in the main body of the monograph clearly allude to other signals not published in the collection. I have therefore taken liberties in folding these into the overall sequence from the Room 40 intercept of German traffic to Beatty raising his flag in *Princess Royal* the next day, just over a 12-hour period. The resulting C2 state space for Dogger Bank is given in Figure 12. Peak B, information about the adversary, is clearly dominant. Not far behind is peak A, control of own forces, and the thing on which it is contingent, information about own forces in peak C. However, we observe that the peak labelled F - attack the adversary - is also relatively strong in comparison to its form in the Jutland plots. There would appear to be a clear answer to my initial question: *Beatty’s aggressiveness with respect to the enemy comes through strongly in the C2 model.* The analysis nonetheless shows copious signalling to control Beatty’s force. Given possible factors such as proximity to the enemy and size of force, it would be presumptuous to conclude that Beatty’s command and control philosophy is the difference without some further analysis.

![Figure 12: C2 state space for the Battle of the Dogger Bank](image-url)
That this might be an accident of closer proximity of Beatty to the enemy at Dogger Bank than at Jutland can be ruled out: according to the available charts, the closest point reached by Beatty is some 20km at Dogger Bank, while in the initial clash at Jutland Beatty gets closer, to a range of some 14km. Perhaps the complete absence of Jellicoe from Dogger Bank (he never brought the Grand Fleet out on that occasion) is significant? To test this I re-examine the Jutland data but filtering out all but the BCF issued signal traffic for two cases: one, analysing only traffic of the BCF up to 1800, at which point it joins the Grand Fleet in combined deployment at Jutland, and, two, showing the BCF across the entire Jutland dataset. The two results are shown in Figure 13 and Figure 14. In both cases we have features familiar from the Jutland analysis: in the first, indeed the peak containing information about the enemy is strong but that related to internal coordination is marginally higher; in the second, coordination and information about own both dominate over signals related to the enemy. Evidently at Jutland, Beatty was nearly as ‘psychosomatic’ as Jellicoe - and this flowed down through his subordinates - while at Dogger Bank the command and control traffic more closely reflects his avowed command philosophy.

Figure 13: C2 state space for the BCF only at the Battle of Jutland up to 1800
The size of Beatty’s forces at Dogger Bank can possibly be excluded: including destroyers, Beatty commanded 47 vessels, only marginally less than the 52 he led at Jutland. However, after 1800 at Jutland, the BCF had to also coordinate with the 90 plus vessels of the Grand Fleet possibly explaining Figure 14, but not Figure 13. Could it be that the errors at Dogger Bank - with Beatty’s intent implicit but then misunderstood - caused him to suppress his natural instincts?

Conclusions and the Future

We see that indeed for the two battles I have analysed the unique characteristics of the commander are visible through the accumulated artefacts of the system. But there is a wrinkle: at Jutland, Beatty is either mimicking Jellicoe in concern for internal coordination or is forced into it possibly by caution after the mistakes of Dogger Bank before converging with the Grand Fleet, and after, by the demands for coordinating the BCF within the Grand Fleet. I hope in the future to test these possibilities by examining Beatty’s earlier engagements at Heligoland Bight and Scarborough. The fact is that my analysis has given two snapshots across a broad history of naval battles of varying scales, varying commanders and communications technology - whose signals have been preserved in the historical record. Further into the future, I would seek to test the role of forces size on the command and control model by analysing naval engagements in the Pacific theatre of World War II, where all navies had recognised the impracticalities of managing fleets as massive of those at Jutland. The challenge of these battles is that,
by that stage, wireless technology (radio) had come into its own, and the volume and richness of communication becomes prodigious.

More generally, by such validation through the record of history I seek a tool that may be applied in the future. That application may be three-fold. In the pre-deployment stage of an operation, even the simplest form of the C2 state space in Figure 2 serves as a device for commanders and staff to anticipate how they can, over the duration of an upcoming operation, act across the whole command and control model. A state space analysis is naturally useful for immediate post-action review of an operation. Current computing power can accelerate this review. The third application comes from further case studies and emerging technology. Modern technology already offers fast monitoring and cataloguing of voluminous live signals traffic between geographically separated C2 nodes in an ongoing operation. The developing technologies of machine learning and natural language recognition and processing offer the capability of rapid analysis of even specialist/technical communications. Visualisations of the C2 state can thus be compiled by computer systems in real time and made available to commanders and staff throughout an operation. Through historically validated ‘C2 health metrics’, commanders may have computers offer advice to them whether, for example, attention has been too introspective for some period of time, or that too much or too little command is being exercised or even that the C2 states are fluctuating too fast for any prudent coordinated action. In that respect, I hope that technology built on a command and control model that is anchored on what command is about - the human, as Pigeau and McCann remind us - and that is validated by the verdict of history may not suffer the flaws of contemporary command systems about which Martin van Creveld warns:

To allow [the technology] to dictate the structure and function of command systems, as is sometimes done, is not merely to become the slave of technology but also to lose sight of what command is about.16

Endnotes

* I am grateful to Dr David Stevens and the Sea Power Centre-Australia for their ongoing encouragement to me, a mathematician, in applying my peculiar tools of trade to the stuff of naval history.


3 Lambert, Admirals; the naval commanders who made Britain great, p. 378.


7 Lambert, Admirals: the naval commanders who made Britain great, p. 363.

For example, NATO Glossary of Terms and Definitions STANAG AAP-6(R), 1988.


Pigeau and McCann, ‘Reconceptualising Command and Control’, p. 56.

For example, Patrick O'Brian, *The Surgeon's Mate*, 1981.

Admiralty, *Battle of Jutland, 30th May to 1st June, 1916, Official Despatches with Appendixes*, HMSO, London, 1920. The known inaccuracies of recording signals information while under fire, as was the case for the RN at Jutland, ‘wash out’ of a statistical analysis of this kind. Statistical analysis never provides nor relies upon microscopic detail of individual events, but a collective picture arising from the interaction of many such microscopic events. In validating the C2 model by this method one therefore does not look to any single event but to the gross statistical picture emerging from the analysis.


The sea-going element of the Royal Naval Air Service (RNAS) created and evolved methods of operating aircraft from ships that are still traceable in every naval air arm today. By 1918, its achievements were so far ahead of other navies that Captain GW Steele USN, an observer sent to study aviation in the Grand Fleet, informed the US Navy General Board that so many ideas had been gained from the British ‘that any discussion of the subject must consider their methods’. By the time he said it, political pressures had caused the amalgamation of the RNAS with the much larger Royal Flying Corps (RFC) to form the Royal Air Force, which was already trying to limit the number of aircraft that could operate with the fleet. Within a decade, the early British lead in naval aviation had been lost to the United States and Japan.

The first pilots had been trained and the first aircraft procured by the Royal Navy for trials and testing in the same way that torpedoes, wireless telegraphy (W/T), and submarines had recently been introduced, indeed many of the pioneer aviators and engineers had previously worked on these innovative technologies and regarded aviation as the next logical step. No separate organisation was created or indeed deemed necessary, to administer them. Aviation had a mystique about it, however, resulting in both political involvement and controversy although few could have foreseen just how devastating the impact of that controversy would be on the Royal Navy’s own ability to fight after 1918. The RNAS was not just a force of sea-going aircraft however, after 1914 it expanded rapidly into a considerable organisation that operated primarily on land, with not only aircraft, seaplanes, and airships but also with armoured cars, armoured trains in Belgium and France, and an anti-aircraft corps based around London. It has a fair claim to have developed the tank for land warfare with some of the earliest examples built for the RNAS as ‘HM land ships’ complete with individual names. A century later, re-examination of the RNAS will not only help us to understand what it was and place its valuable legacy in its proper context but will help us to understand why things are done in the way that they are today and, perhaps more importantly, how we might avoid the prejudices and mistakes of our predecessors.

The development of both lighter-than-air and wing-borne aircraft after 1903 was widely perceived to create a new threat of aerial bombardment against the United Kingdom, leading to considerable public unease during the first years of the 20th century. Louis Bleriot’s flight across the Channel in 1909 caused a particular stir leading to press claims that Britain ‘was no longer an island’ despite the fact that his aircraft had no military capability. A manned hydrogen-filled balloon with greater capacity to carry weapons had actually crossed the Channel from France in 1785 with similar claims made then but forgotten. Despite the hyperbole, however, and the growing potential
for aircraft to raid the United Kingdom, any significant invading force would have to move by sea and defeat the world’s largest navy at the height of its power in order to do so.² The Committee of Imperial Defence studied ways of countering an aerial offensive and reading the papers today it is of interest that they saw bombing as an end in itself rather than as an effect intended to support a more conventional naval or military offensive. Whilst obvious targets such as the dockyards and naval magazines near Chatham were noted, the primary concern was the effect on civilian morale if raids were carried out on centres of population. Although prior to 1914 there was no practical experience to indicate that bomber crews could find their targets or drop bombs with sufficient accuracy to hit them or even what damage would be likely to result if they did, politicians saw aviation as a distinctly new form of warfare that would require a ‘unified’ air organisation to counter it. Both Churchill at the Admiralty and Haldane at the War Office spoke out strongly in favour of the ‘unity’ required in air arrangements. The result was the RFC with Naval and Military wings established by Royal Warrant on 13 April 1912. A Central Flying School (CFS) and the common procurement of aircraft and engines were to form unifying elements for the two wings. It was intended that the British Expeditionary Force (BEF) could lend naval pilots to the Military Wing in a land campaign and that Army pilots could reinforce the Naval Wing in operations at sea. In practice both the Navy and Army continued to train their own pilots in addition to those who passed through the CFS and both took direct-entry recruits who had qualified as pilots in civilian flying schools. The Army relied on the products of the Royal Aircraft Factory at Farnborough for its aircraft needs but the Royal Navy found the majority of that organisation’s aircraft to be inadequate or unsuitable for naval use and continued to source aircraft from civilian firms including the Short Brothers, Avro, and Sopwith. The underlying problems of aircraft and engine procurement were present from the outset and grew to major proportions in late 1916 when the RFC took heavy casualties.

Both wings were to scout for enemy forces. When located, they were to spot the fall of shot of their own force’s guns and signal corrections to their gunners to enable them to hit targets they could not necessarily see, thus, in the simple terms understood by politicians, achieving a national air arm with unity of purpose, common training, and equipment. Of interest, neither wing had practiced the realistic defence of the United Kingdom against air attack nor developed effective weapons or tactics for bringing down aircraft or airships by August 1914. However, the RNAS did carry out experiments with a number of airborne weapons in 1913-14 including the fitting and test firing of a 1.5 pounder naval gun and Vickers machine guns in aircraft. In July 1914, Lieutenant AM Longmore (an Australian serving in the RN) dropped the first torpedo from a specially designed Short biplane.

Many writers have commented that ‘the two wings drifted apart’ or that ‘the Admiralty followed its own ideas’ implying that there was no naval enthusiasm for a unified approach. In practice, it was obvious that the two wings needed to find their own solutions to the different technical problems they faced if they were to play an active and realistic part in conflicts that involved the parent Services that were the reason for their
existence. Therein lay the basis of another cause of controversy between the visionaries who saw aviation as a new and distinctly separate form of warfare, fighting its own battles and not involved in the conflicts below it on sea and land and the pragmatists who saw aircraft as a means of improving the fighting capabilities of the Army and Navy. Naval pilots had taken part in Army manoeuvres in 1913 and Army pilots had practised coastal patrols but the driving force for development came from within their own Services. The real surprise would have been for the two wings to find sufficient common ground with the technology of 1914 to remain together. In 1912, the Military Wing was already capable of deploying a few primitive aircraft with the headquarters of the British Expeditionary Force, and in reasonable weather conditions, they could operate from any suitable flat field supported by mobile workshops, tented accommodation and canvas hangars. Information, when it was gathered, could be flown back to the headquarters and relayed verbally to the command, in much the same way that cavalry had done for centuries. Armies of that era moved at a pace that allowed information gathered in this way to be acted upon effectively by generals but the Naval Wing had no such capability. In 1912, there was no means of operating its aircraft at sea with the fleet under anything but experimental conditions. Moreover, there were no means of relaying information from an aircraft to the flagship in sufficient time for it to be used to engage an enemy fleet that could be moving away at 20kts plus the speed of the flagship. The Naval Wing focused on finding solutions to its own problems, so there was little to bind the two wings together. Moreover, its concentration on finding a way to contribute effectively to naval warfare was inevitably going to result in it adopting a more naval identity, which was recognised when the title Royal Naval Air Service was officially adopted in July 1914; it had been used informally before then.

At the outset, the RN took the seamanlike approach of evaluating what aircraft could actually achieve rather than accept untested claims. Commander Samson’s experimental take-offs from the battleships Africa and Hibernia in 1912 had shown that aircraft could take off from platforms fitted to warships in ideal conditions but those platforms obstructed the guns that formed their main armament and even the early pioneers conceded that in a sea battle the guns were more useful than an aircraft could be. At best, such ships could carry only one or two aircraft, their launch platforms would limit usefulness in their primary roles, and aircraft could not land directly onto the ship. By 1913, however, the Admiralty was sufficiently interested in the potential of aircraft to recognise that the best way of introducing reconnaissance aircraft into the operations of a fleet at sea would be to commission a vessel that had no other function than to operate them. The seductive possibility of equipping those aircraft with floats to operate from the surface of the sea meant that such ships could operate as floating hangars and workshops, thus simplifying their conversion. The elderly cruiser Hermes was re-commissioned as a seaplane carrier, and demonstrated that aircraft could operate at sea for protracted periods in calm weather. She had two canvas hangars, one forward and one aft and carried two aircraft, a Caudron GIII and a Short Folder, the latter being the first aircraft fitted with folding wings to simplify its stowage aboard ship. It also had
one of the first wireless telegraphy transmitters to be fitted in an aircraft, but it had insufficient load-carrying ability to carry a receiver, which meant that the observer had no means of knowing whether or not his messages had been received, and the ship no means of asking him a question or changing his brief. *Hermes* proved that aircraft could be embarked for use in reconnaissance but they could not yet be considered reliable; the Folder suffered an engine failure in the North Sea 60 miles from its mothership and was rescued by the German merchant ship *Clara Mennig* before a destroyer searching along its intended track reached it. The overall success of *Hermes*’ operations led the Admiralty to order a specialised seaplane carrier that was named *Ark Royal*, reviving a name that had last been used at the time of the Spanish Armada in 1588.

*Ark Royal* used the incomplete hull of a merchant ship on the stocks with the machinery relocated right aft. The former cargo holds provided volume for a large hangar and workshops. With a maximum speed of only 11kts, however, she should be considered more of a mobile aircraft depot ship than a carrier and after completion in December 1914 she spent most of World War I (WWI) operating at anchorages in the Dardanelles and Salonika. After the outbreak of war in August, the Admiralty took up from trade a number of small, fast merchant ships and converted them into seaplane carriers to operate with the Grand Fleet. The first three were *Riviera*, *Empress* and *Engadine* and they were initially fitted with canvas hangars like *Hermes* but these were replaced with box-like large steel hangars aft, each capable of carrying four seaplanes on trolleys. These could be wheeled aft onto the quarterdeck one at a time to be spread and have their engines run up before being lifted onto the water by a crane. The hangars and flight decks of modern destroyers and frigates designed to operate helicopters bear an interesting similarity. Once on the water the pilot would turn into wind and attempt to take off but this evolution proved far less straightforward than had originally been thought. In choppy conditions, the floats could break up or sea spray could wet the magnetos and stop the engine. In flat calm conditions, the sea surface could create a suction that would prevent the floats from breaking free, effectively holding the aircraft down. The floats had no form of shock absorber so the jarring impact of waves in a choppy sea could cause damage to the airframe and the delicate W/T transmitter. The seaplane carrier had to stop to lower its aircraft individually into the water after they had been prepared and stop again to recover them when they returned. In calm weather, this was done with the ship moving slowly ahead but in rougher weather or limited visibility, both of which were common in the North Sea, it could not be done at all.

The outbreak of war in 1914 found the RNAS with 71 aircraft of all kinds and 7 airships with a further 46 aircraft on order. A chain of air stations was established along the east coast of the United Kingdom from which coastal patrols seeking enemy shipping and the approach of Zeppelins could be flown. They were administered by an Air Department under Commodore Murray Sueter in the Admiralty and Winston Churchill, the young First Sea Lord showed considerable enthusiasm for air matters. When the RFC deployed its entire operational force to France in support of the BEF, Churchill was happy to announce that the RNAS would take on responsibility for the air defence
of the United Kingdom. In addition to aircraft patrols from the coastal air stations, he created an RNAS Anti-Aircraft Corps equipped with guns and machine guns, many of them mounted on lorries to give mobility; it was later transferred to Army control. When Commander Samson took the first RNAS combat formation, known as the Eastchurch Wing, to France in late August 1914 it comprised seven different aircraft types with three different types of engine. To support them he had eight London buses and ten private cars; many of the latter fitted with armour plate and machine guns to conduct roving patrols intended to keep German patrols clear of their airfield at Dunkirk and to recover pilots who had made forced landings after engine failure. More armoured cars were procured by the Admiralty and sent out to form dedicated RNAS squadrons. Samson’s unit flew aggressive coastal patrols, contact patrols looking for the enemy, and dropped bombs on enemy positions; it was also used as a forward-deployed anti-Zeppelin screen and achieved surprising success in all these roles. They moved forward to support the defence of Antwerp at one stage and were ordered by Churchill to try to prevent the Zeppelins being stationed in occupied Belgium from attacking the United Kingdom and to bomb the yards that were now assembling U-boats in Ostend and Zeebrugge. As if this were not a sufficiently tall order, the First Lord also ordered them to bomb any suitable targets. Their operations were not what they had expected and could not be considered specifically naval but they fought with considerable distinction on the exposed left flank of the Allied armies during the early war of manoeuvre. They carried out the first long-range strike operations in history, with attacks on airship sheds at Cologne and Dusseldorf in October. Flight Lieutenant R Marix attacked the Lohausen Zeppelin shed at the latter in a Sopwith Tabloid with two 20lb bombs, one of which penetrated the roof and burst inside the shed, destroying the new Army Zeppelin Z-IX. An even longer ranging attack was carried out against the Zeppelin factory at Friedrichshafen on Lake Constance by Avro 504s operating from Belfort in France but it achieved less spectacular results.

In 1915, the Admiralty moved the Eastchurch Wing, now re-named as Number 3 Wing to the Dardanelles where it served in a variety of roles. Other units replaced it in France to protect Allied shipping in the French and Belgian littoral, seek out the enemy and attack him wherever and however possible. RNAS photographic aircraft took high quality photographs from which maps of German coastal defences were prepared and updated; they also ventured far inland to photograph the front-line in the BEF’s sector of responsibility. In late 1916, General Haig asked for additional fighter squadrons on the Western Front to support the RFC in heavy fighting after the Somme offensive and RNAS fighter squadrons were created out of the units at Dunkirk. By then the RNAS had formed a new 3 Wing which operated Sopwith 1 ş Strutters out of the French airfield at Luxeuilles-Bains on strategic bombing missions over Germany that were a logical extension of the early strikes of 1914. The pilots were trained to attack the Saar works that provided steel to make U-boats but Trenchard (commander of the RFC in France) argued that such operations contributed little direct effect capable of shortening the war. During the 1917 air crisis over the Western Front, the Admiralty agreed to disband the unit and transfer most its aircraft to the RFC. 3 Wing had established a precedent, however,
and the big Handley Page 0/100 bombers operated by 5 Wing in 1917 were designed as strategic bombers to a RNAS specification. Trenchard subsequently established 41 Wing RFC, which included ‘Naval A’ bomber squadron tasked with a very similar mission. Ironically, 41 Wing evolved into the Independent Bombing Force of 1918 and the RAF Bomber Command of World War II (WWII) and when the latter claimed that its strategic attacks on German industry were impairing the construction of U-boats, it was the Admiralty that objected, claiming that direct action against them in the Atlantic was a more effective tactic. Eventually seven RNAS fighter and bomber squadrons served on the Western Front under RFC control, earning a distinguished record during the huge battles for air supremacy over the trenches in 1917 and 1918. The fighter squadrons were equipped in turn with Nieuports followed by Sopwith Pups, Triplanes, and Camels and they attracted some of the best pilots in the RNAS; they came from all over the British Empire and some of them shot down large numbers of enemy aircraft. Among them were Canadian Raymond Collishaw with 60 victories and Australian Robert Little, the top scoring Australian fighter pilot of all time with 47. These operations are interesting in that they demonstrated the Admiralty’s willingness to stand by the original Naval Wing commitment to support the RFC when it desperately needed reinforcement at a critical point of the land war. It can be argued that this showed an integrated approach to the deployment of tactical aircraft but, politically, it did the RNAS irreparable damage because it was thought in London that there were two air forces doing the job of one. The more readily identifiable ‘naval’ side of the RNAS embarked in ships and operating flying boats and air ships on long patrols over the North Sea and the western approaches to the United Kingdom attracted fewer headlines and were not as visible to the policymakers. It was to be their achievements that made the operation of aircraft from ships not only possible but also essential to prosecute the war at sea and it is on this aspect of the RNAS that this paper will now concentrate.

On Christmas Day 1914 seaplanes from Riviera, Engadine and Empress launched from a position north of Heligoland to attack a Zeppelin base thought to be at Cuxhaven, but which was actually at Nordholz some miles to the south. Two of the nine aircraft lowered failed to get airborne and the remaining seven failed to find the air base because of extensive mist and the lack of adequate target location information; they caused little material damage to the enemy but the raid is significant as the first ‘carrier air strike’ in history. It therefore marks the beginning of a new epoch in naval warfare although it was not recognised as such at the time. The seaplane carriers were supported by the Harwich Force and a number of submarines; the Grand Fleet was at sea in distant support although probably too far away to have intervened effectively if the German High Seas Fleet had sailed. Looking back on the operation, it can be seen as the prototype naval air operation in which all elements of a fleet, including submarines, conventional surface ships and the new aircraft, could be used to create effects and force the enemy into action. Surprisingly, the High Seas Fleet did not sail, however, but several German Zeppelins and seaplanes attacked the Harwich Force, leading to the first air/sea battles. At the time, the attempted strike showed that seaplanes were not effective, a view
reinforced when subsequent attempts to repeat it also failed. As early as 10 July 1913 The Aeroplane magazine had printed an article by CG Grey who had interviewed several RNAS pilots. He quoted them as saying

it is obvious that for deep-sea scouting, aeroplanes must leave a moving ship. The idea of hoisting a cumbersome hydro-aeroplane overboard with a derrick and expecting it to get off the sea raised by a 40 or 50 mph wind is fatuous...it seems so very apparent that launching is the only rational method.

Although launching from take-off platforms had been demonstrated from Africa, Hibernia, London and Hermes, it seemed to take a long time for the idea to become fully accepted and the technique to be standardised from suitably equipped ships.

From 1915, better and larger seaplane carriers were taken up from trade. Vindex introduced a small flying-off deck from which a wheeled Bristol Scout was launched and the larger, former Cunard liner Campania was converted with a flying-off deck and a small air group of seaplane fighters and reconnaissance aircraft. Her procurement tells something of the early priority given to aircraft carriers since she was thought too old and unreliable for conversion into an armed merchant cruiser and sold to a scrap-yard in August 1914. At 20,000 tons and able to steam for short periods at up 21kts when burning quantities of the best Welsh steam coal she was capable of carrying up to 10 aircraft and could operate with the Grand Fleet. Her seaplanes were no more successful than any others in taking off from the surface of the choppy North Sea, however, and throughout WWI no seaplane fighter succeeded in getting airborne to intercept a Zeppelin after it was sighted. Zeppelins could out-climb seaplanes by dumping ballast and as soon as the crew saw a carrier stop to lower a fighter, they could climb away. Admiral Jellicoe’s critics have said that he was keener on the concept of having aircraft in his Grand Fleet than having his staff make plans to use them effectively but in July 1915, he wrote to the Admiralty complaining that Campania’s flying deck was too small to allow scouts to launch from it on a regular basis. He said that ‘we will not only be powerless to carry out aerial spotting, but I am afraid we shall also be unable to prevent the Germans doing so by means of their Zeppelins’. Jellicoe then added the crucial sentence

I regret that I am unable to propose any means of meeting this menace, unless it be by the use of aeroplanes rising from the deck of Campania, capable of climbing above the Zeppelins, and able to land on the water and be supported sufficiently long by air bags to allow of the rescue of the pilots.

With these diffident words the Commander-in-Chief of the Grand Fleet stimulated the next major step in carrier-borne aviation although the solution of the ‘technical difficulties’ that needed to be overcome before aircraft could land back on their parent carriers were still not brought into sharp focus. The Air Department within the Admiralty was splitting its attention between too many aircraft, weapons, and systems to focus on the one major problem that prevented aircraft from operating at sea on a regular, practical basis. Popham described it eloquently when he said that analysis of the development of the aircraft carrier by later generations was like ‘watching a child assemble a jig-saw which
one has already done; one itches to slip into place the key piece which it glances at and then rejects’. Despite the lack of progress in 1916, however, between 1912 and 1918 the RN evolved and built the world’s first true aircraft carrier; that is less time than it took for the United Kingdom to design and order the Queen Elizabeth class carriers presently under construction. Progress should have been quicker but it was still a remarkable achievement.

The positive result of Jellicoe’s letter was that Campania was taken in hand for improvements, emerging in April 1916 able to operate any ship-borne aircraft in service in significant numbers; she had a larger flying-off deck, two large hangars and extensive airframe and engine workshops together with numerous detail improvements. The latter included a quick-release slip gear on the slings of the aircraft derricks that enabled seaplanes to be lowered into the water while the ship was under way at up to 10kts in calm conditions. Recoveries from the water were also possible at up to 4kts but only for two-seater aircraft since the pilot was fully occupied keeping the aircraft under the derrick. The most important change was the enlarged flying deck that sloped steeply towards the bow to help aircraft accelerate. Its rear passed between two new athwartship funnels installed 22 feet apart, which had a navigating platform fitted between them. A winch and ‘dock’ for a tethered balloon were fitted aft. The success of the new arrangements was demonstrated on 29 May 1916 when Campania launched five Sopwith Baby seaplane fighters from the deck in sequence; an evolution that had previously been a major event had now become a matter of routine. By then she was serving with the Grand Fleet based in Scapa Flow with an air group of Short 184 reconnaissance aircraft as well as the fighters; the smaller seaplane carrier Engadine was serving with the Battlecruiser Fleet based in the Firth of Forth. Unfortunately, only Engadine took part in the Battle of Jutland after a number of unfortunate errors prevented Campania from sailing with the main fleet on 30 May 1916. These are explained in some detail as they show how Jellicoe and staff still had only a sketchy idea of how to employ their seaplane carrier and its aircraft.

In Scapa Flow, it was usual for the battleship and cruiser squadrons to anchor off the island of Flotta, and the destroyers in the sheltered waters near Lyness in the southern part of the Flow. However, the seaplane carriers anchored off the northern shore of the Flow near the air stations at Houton, Smoogroo and Scapa Bay where their aircraft practised flying when disembarked. Campania fell back into this routine when she rejoined the fleet in April 1916 after six months away and was, thus some distance away from the signal station on Flotta and the fleet flagship. During 30 May 1916 she was out exercising her seaplanes and returned to Scapa Bay, about six and a half miles from the flagship Iron Duke’s anchorage at about 1735, when the ‘preparatory’ signal was sent to all ships. An hour later the Commander-in-Chief signalled Campania that she was to follow the cruiser Blanche and be the last ship to leave. She was to do so but not in the way Jellicoe intended. The fleet was ordered to raise steam for maximum speed at 1900 and to weigh anchor at 2100 but for some inexplicable reason Campania missed the executive signal to take up station and failed to see the darkened fleet sailing but signalled at 2230 that she was ready to proceed. This caused the Commander-in-Chief’s
staff no alarm and nor did a signal from Blanche at 2330 saying that her destroyers could not see Campania. The Commander-in-Chief and his staff took no action and it was only when the Flow’s Boom Defence Officer asked her when she would be sailing that Campania realised what had happened and sailed. Her engineering staff drove her hard and she would have caught up with the Grand Fleet before action was joined, but Jellicoe was concerned that she might be vulnerable to submarine attack. When his staff wrongly advised him that she was too slow to catch up, he ordered her to return to Scapa Flow at 0437 on 31 May, thus denying himself any chance of air reconnaissance. It was left to Engadine with the Battlecruiser Fleet to launch one of her Short 184s at 1508 on 31 May to become the first aircraft in history to participate in a naval battle.

When Admiral Beatty learned from the cruiser Galatea that a considerable German fleet was nearby, he ordered Engadine at 1445 to send up a seaplane to scout to the north-north-east. Commendably the aircraft was launched in only 23 minutes, flown by Flight Lieutenant FJ Rutland RNAS and with Assistant Paymaster GS Trewin RN as observer. The rank of the latter gives us another insight into the early organisation of naval aviation; surprisingly at the time, despite the importance given to reconnaissance, there were no specialist observers in the RNAS, and the task was given to volunteers who were small in stature to keep aircraft weight to a minimum. They were given training in ship recognition and morse transmission ‘on the job’; many were reserve midshipmen who had been to merchant navy training schools and almost all of the them hoped to become pilots in due course so that a constant stream of replacements needed to be found. Because the aircraft had a spark-gap W/T transmitter, its signals could not be received on the continuous wave equipment in the flagship and had to be taken in by Engadine and re-transmitted; arrangements in Campania would have been the same. Trewin’s first enemy report was received at 1530 while Rutland, known ever afterwards as ‘Rutland of Jutland’, flew under low cloud and under fire within 3000 yards of enemy cruisers to identify them. Engadine tried to relay the aircraft’s information a number of times between 1532 and 1545 but the signal log shows that the messages were never acknowledged in Beatty’s flagship. Despite this, in his after-action report Beatty praised the aircrew’s effort and the clarity of the reports transmitted to Engadine whilst under fire and both officers were awarded the DSC. Rutland made a forced landing on the water when a petrol pipe burst but he managed to repair it and took off a second time to fly back to his ship; he was hoisted in at 1600 and no further missions could be flown because of the deteriorating weather and sea state. One can only conjecture what difference the aircraft in Campania would have made since they could have launched from her deck rather than the water. They could have given Jellicoe the information he needed about the enemy’s position, course, and speed but to do so he would need to order them to launch at the right time and to take in the relayed signals from the carrier to keep his action plot up to date. On the showing of the previous 24 hours that would have been a tall order. The lack of observers was solved in 1917 by training signal yeomen for the job. They became warrant officer observers and were very effective in the last year of the conflict. Wing Commander Bell-Davies became Campania’s senior RNAS officer in
1917. He commented that despite the fact that the problem of launching aircraft had been largely solved, in no less than three major Grand Fleet exercises during 1917, information from aircraft giving the position of the ‘opposing’ fleet was not taken in by the fleet flagship despite its priority and clear transmission.  

When Beatty became Commander-in-Chief of the Grand Fleet, he sought a more aggressive policy for the RNAS and asked the Admiralty for an outline of its intentions. The reply stated somewhat circumspectly that no ‘definite policy had been laid down in black and white’, but that in general terms the RNAS was to be employed on naval duties ‘to provide air reconnaissance and anti-Zeppelin fighters for the Grand Fleet, patrols to fend off submarines and enemy aircraft from convoys and a bomber force to attack German bases in Belgium’. Not satisfied with this reply, Beatty established a Grand Fleet Aeronautical Committee (GFAC), an informed and influential group that was to be of great importance in the history of naval aviation. Their recommendations, strongly supported by Beatty were accepted by the Admiralty and led to the wheeled Sopwith Pup becoming the standard fleet fighter and the wheeled, W/T-equipped Sopwith 1 Strutter being identified as a replacement for the Short 184 as the standard spotter and reconnaissance aircraft. They were to operate from platforms on battleships and cruisers as well as seaplane carriers, having to ditch when their fuel ran out if they were not within range of land. The Admiralty had purchased the incomplete liner Conte Rosso planning to complete her in 1918 with both launching and landing decks to act as an ‘alighting station’ with the Grand Fleet for aircraft launched from battleships, cruisers and other warships. The GFAC and Beatty were not prepared to wait and suggested, as a ‘drastic measure’, the modification of the nearly completed large light cruiser Furious. She emerged as a ‘hybrid’ on the cusp of naval aviation’s acceptance as a major fleet asset with a single 18-inch gun aft but the forward gun was removed and replaced by a hangar and a flying off deck on top of it which was 228 feet long and 50 feet wide tapering to a pointed bow. A slot in it held a trolley on which the floats of a Short 184 could be placed to take off from the deck, a buffer at the end of the slot retaining the trolley on deck as the aircraft flew off it. Although intended for launching, the deck gave ample room for a Sopwith Pup to land, albeit forward of the superstructure, in the opinion of her forward-thinking senior RNAS officer Squadron Commander EH Dunning DSC RNAS. The ship itself was capable of 31kts and with her bow into wind she could create an airflow over the deck that equated to the landing speed of the Pup allowing the pilot to side-slip in over a guide line painted across the deck to hover or, if the pilot blipped the engine off, to land. Furious joined the Grand Fleet in July 1917 and having informed his captain what he intended to do, Dunning flew over to it while she was at anchor off RNAS Smoogroo on the north shore of Scapa Flow and practised ‘touch and go’ approaches and landings when the wind was blowing strongly enough for the ship to lay into it. On 2 August 1917 Furious sailed to the south of Scapa Flow for gun ranging exercises after which Dunning flew out and landed on the deck, subsequently being held down firmly by squadron personnel to prevent the aircraft ‘fluttering’ like a kite on the deck. This was the first time in history that an operational pilot had landed an
operational aircraft on an operational warship under way at sea; the final piece of the jig-saw had been put accurately in place and the solution to the ‘technical difficulty’ of operating aircraft from ships at sea had been resolved.\textsuperscript{12} Landing-on was perfectly practical, even on a less than ideal deck and numerous senior officers had been on board to witness the fact; the way ahead was, at last, clear. There was still the problem of keeping lightweight aircraft like the Pup firmly on deck once they had landed but that was solvable with careful handling parties.

A further series of landings took place five days later on 7 August; on the first of these, the elevator of Dunning’s Pup hit the coaming of the hangar hatch causing slight damage. He changed aircraft and attempted another landing but this time he drifted too far forward over the narrower part of the deck. The gusty wind caused ‘cliff-edge’ effect, which lifted his port wing just as he tried to fly away for another attempt; at the worst possible moment, his engine choked and failed and he went over the side out of control and crashed into the sea. There was no ‘plane guard’ destroyer or crash boat and by the time \textit{Furious} got back to him 20 minutes later, he had drowned. Dunning had proved the point, however, and every subsequent pilot who has carried out a deck landing owes something to his vision. \textit{Furious} was taken in hand almost immediately to have a landing-on deck fitted aft despite the concerns of her pilots that the superstructure and funnel, which remained amidships, would cause too much turbulence to allow safe landings. They were right and the ship remained a ‘one-shot’ carrier but with a much larger air group until the end of the war, a second hangar having been included under the after deck. The cruiser \textit{Vindictive} was completed to a similar design in 1918. \textit{Furious} was not yet the complete solution but her aircraft demonstrated what had been achieved and what was now possible in July 1918 when seven Sopwith Camels were launched to bomb the Zeppelin base at Tondern and destroyed L54 and L60 in their sheds.

Earlier, on 1 June 1918 another Camel flown by Flight Lieutenant Sharwood launched from HMAS \textit{Sydney} to intercept two German aircraft, which overflew the cruiser searching for the main fleet.\textsuperscript{13} After a 60-mile chase, the enemy aircraft was shot down, the first time in history that a fighter had taken off from a ship’s deck and successfully intercepted a hostile aircraft and another example of the way aviation had, at last become integrated into every aspect of routine fleet operations. Apart from the pilot, much of the credit must go to \textit{Sydney}’s commanding officer, Captain Dumaresq, an Australian serving in the RN, who had insisted that his ship be fitted with first rotating aircraft launch platform that allowed the aircraft to be pointed into the ‘felt’ wind for take-off without having to turn the whole ship into wind. He also insisted that the pilot and his mechanics stood by their machine at action stations, a bugle call summoning the remaining launching crew to their positions for a take-off, which was about as efficient as the system would allow. Practice brought the launch time down to two minutes. Fighters launched from other cruisers and even a lighter towed behind a destroyer brought down Zeppelins during operations with the Grand Fleet.
The culmination of RNAS work on getting aircraft to sea was the aircraft carrier *Argus*, the first ship in the world able to launch and recover aircraft onto her flight deck as a matter of routine. She used the basic hull of a liner with its large internal volume in order to hasten completion but her design was changed from the original two islands with launching and alighting decks into a single, long unobstructed flight deck after the results of the landing trials in *Furious* had been analysed and understood. She joined the Grand Fleet in September 1918 and after flying trials that proved her to be a practical design in October, she began to work up with Sopwith T1 torpedo strike aircraft for a proposed attack on the German High Seas Fleet in its harbours that would have pre-dated Taranto by 22 years.\textsuperscript{14} By then her squadrons formed part of the new RAF but the pilots were former RNAS men who thought in terms of naval aviation and the aircraft and their lightweight torpedoes had been procured to meet Admiralty contracts. The war ended before the strike could be mounted but the T1 squadron Christmas card showed how much enthusiasm the squadron members had for this revolutionary new form of warfare. Interestingly the planned attack would have included flying boats from air stations ashore and it should be stressed that until April 1918 shore-based RNAS flying boats, aircraft, and airships formed an integral part of fleet operations, especially with regard to convoy escort and anti-submarine patrols. The famous ‘spiders web’ patrol between Lowestoft and the Hook of Holland with segments that radiated from the North Hinder Light Vessel was one such patrol area and 20 U-boats were attacked in it between April 1917 and April 1918.\textsuperscript{15} The non-rigid coastal and North Sea airships proved especially successful in denying U-boats the ability to operate on the surface in the United Kingdom littoral; a capability not retained by the RAF and which would still have been of considerable value in 1939.

This brief paper has concentrated on the development of ship-borne aviation but has, I hope, served to raise awareness and interest in the entire RNAS, which was a large, diverse, and complicated organisation. Between 1914 and 1918 it grew from an untried force of experimental aircraft with no clear war role into an effective force with over 3000 aircraft, 52 airships, 100 naval air stations, the world’s first aircraft carrier and over 100 aircraft embarked in ships of the Grand Fleet equipped with take-off platforms. It had over 55,000 men on its books when the RAF took it over, a figure never subsequently exceeded by the RN Air Branch or Fleet Air Arm. Its administration had continually to be reviewed and improved and undoubtedly, the ‘maverick’ nature of the early RNAS was steered by ‘Churchillian’ enthusiasm into too many avenues that had little naval relevance. The Balfour/Jackson regime after 1915 was less dynamic and ‘reigned in’ the fledging air arm, transferring operational control from the Director of the Air Department in the Admiralty to local commanders-in-chief; technical matters were rightly re-distributed among appropriate departments. Procurement of aircraft and aero-engines had gone through a period of ‘generous rivalry’ with the RFC in 1915 but by 1916 bitter arguments forced the government to establish a series of Air Boards intended to establish and impose a national policy on aircraft procurement. In all this the Admiralty’s expertise in specifying technical equipment and making use of wider industry contacts
is clear but the resentment of the RFC in being out-bid for equipment is understandable. Admiralty contracts for aircraft such as the Sopwith Camel and the Bentley aero-engine proved to be vital to the war effort whereas much of the equipment accepted by the RFC at first was mediocre. The Admiralty did not help its case for keeping the RNAS as a vital component of the fleet at sea, however, by limiting cooperation with the Air Boards and would have done better to cooperate with them and explain its naval needs with clarity.

Too late, in 1917, a Fifth Sea Lord responsible for air matters was created and an Admiral Commanding Aircraft was appointed within the Grand Fleet as the focal point of naval air matters. This was an ideal arrangement but the Smuts Report, which recommended the formation of a unified air force, took little account of naval aviation and focused on RFC operations in France and the unproved potential of the independent bomber force, in both of which RNAS units formed a part. The politics behind the creation of the RAF would fill a far larger paper than this one but it is worth noting that because of its rapid expansion in wartime, the 55,000 men in the RNES were nearly all reservists, serving during ‘hostilities only’. Out of that total only 397 officers, 217 ratings and 604 boys formed part of the RN permanent list, a total of 1018. Most of the permanent officers who had flown throughout the war without sea command felt that their careers would suffer in the postwar RN because of their lack of sea-time and transferred to the new Service. There were also fears that had it been retained, the RNAS would have been drastically cut back and re-adjustment would certainly have been necessary in a peacetime fleet but in the event, the RAF itself was drastically reduced in size after 1919. Many former RNAS officers achieved high rank but their expertise was lost and a new generation of RN officers would have to learn about naval flying, its effects, capabilities, and strengths.

While the RNAS achieved a number of significant effects in WWI, historians misunderstood many of them. First was the ‘air-mindedness’ that underpinned the rapid expansion of aviation in the RN; had there been any truth in the myth that the Admiralty and senior officers were opposed to the new air technology, the RNAS could not have expanded and achieved what it did in only six years. Tactically, before 1918 the RNAS developed every air weapon that would be used in WWII, including the air-launched torpedo. Although few immediate successes were achieved with these weapons, their development in a period of national emergency and intense competition for resources was a significant achievement. Strategically the bombing raids carried out against German industrial targets carried out by 3 Wing and its successors had little impact on the war but ‘went some way to shake the morale of the industrial population and had an adverse effect on the output of munitions’. Arguably, this was an element of the RNAS that could have been transferred to the RFC.

By 1918 the RNAS had not only demonstrated that specialist aircraft carriers were needed to operate aircraft effectively but that specialised aircraft were required to operate most effectively from those ships; the differences between the Sopwith F.1 Camel on the Western Front and the 2F.1 ‘ship Camel’ embarked in the Grand Fleet are a good example. So too was the navalised 1 Strutter with its W/T installation and detachable

```
wings. This was another lesson that was lost after 1918 and had to be re-learned later. Observation balloons towed by warships achieved some useful prominence in 1918 but the advent of the aircraft carrier and catapult aircraft in battleships and cruisers soon replaced it. Naval aircraft scored some notable successes in the Mediterranean, Middle East, and east Africa. In 1915, seaplanes from improvised carriers spotted Turkish troop movements towards the Suez Canal and gave tactical information that helped the Army prepare successful countermeasures. The German cruiser *Konigsberg* was sunk in east Africa by gunfire from British monitors that were assisted by aircraft that corrected their fall of shot. In the Dardanelles campaign, RNAS aircraft had a strategic influence far beyond their proven capability in early 1915 and the potential ability of aircraft to spot for ships’ gunfire undoubtedly influenced Churchill’s enthusiasm for a purely naval offensive. RNAS aircraft were used because they could be supported by a mobile base (the seaplane carrier *Ark Royal*), and because naval pilots were expected to have a greater knowledge of the guns used in the initial naval bombardment. When the naval offensive failed and the land campaign on the Gallipoli peninsula began on 25 April 1915 naval aircraft still had a key role to play. Seaplanes from *Ben-my-Chree* carried out the first airborne torpedo attack in history although the weapons system was still immature. Much has been written about the Allied failure to take the peninsula but less has been written about the Turkish failure to defeat the Allied Expeditionary Force once it got ashore. The reason for this was Allied air reconnaissance, which located enemy troop concentrations behind hills and other cover and allowed effective defences to be prepared against large-scale attacks before they were launched. The success of the eventual withdrawal from Gallipoli was, in large part, due to RNAS aircraft that prevented enemy aircraft from over-flying the Allied positions and discovering the lack of men in them.

The East Indies and Egypt Seaplane Squadron played a major part in a number of actions in the Middle East which foreshadowed the use of carrier task forces in WWII in that they brought appropriate tactical pressure to bear where it was needed and then moved on to the next operation. Among its many operations were searches for German raiders in the Indian Ocean and strikes against the Turkish rail system throughout the region. The wide-ranging mobility of shipboard aviation enabled it to exert strategic effect on areas far beyond the reach of land-based aircraft. Not the least of the squadron’s successes was the support given to the Arab insurgents led by TE Lawrence in several of their operations close to the Red Sea. *Ben-my-Chree* was serving with the squadron when Turkish batteries shelled her in 1917; the only aviation vessel sunk during WWI.

In the North Sea, German concepts of what Zeppelins could achieve and British apprehension of what they might achieve had a profound effect on operations and helped to prevent the major fleet battle that could have affected the character and duration of the war. By 1917, air reconnaissance had evolved to the extent that the strategic surprise needed by the German fleet as a pre-requisite before sailing was unlikely ever to be achieved. The spiders web patrols by flying boats centred on the North Hinder Light Vessel and longer-ranged incursions into the German Bight gave extensive coverage of
the North Sea. We have already looked at the Battle of Jutland and noted that, properly handled, *Campania* could have launched a multiple aircraft search from her deck to inform Jellicoe of the German fleet’s position, and she could have recovered her aircraft more easily than *Engadine*. Fumbled signals in Scapa Flow, a lack of knowledge of the ship’s capability and lack of an air plan cost Jellicoe the ‘edge’ he should have possessed during the battle. Jellicoe’s apprehension about German air reconnaissance had some foundation in fact but it is also true that he failed, for a variety of reasons, to integrate and make the best possible use of Admiralty ‘Sigint’ intelligence and the nascent air reconnaissance capability he had at his own disposal.

The RNAS had a very significant influence on the war of 1914-18 but it was in ways that are not all obvious in a casual study. Reconnaissance and sea control were the most significant factors, backed by the rapid growth of ships, aircraft and weapons that would have been a decisive factor in 1919 and would actually become dominant factors in the war of 1939-45. Politics and an ill-considered belief by some men of influence and power that aircraft existed to fight other aircraft without a part to play in naval warfare eventually robbed the RN of its air arm in 1918. Similar arguments were deployed in the United States a decade later, but forewarned by events in the United Kingdom, the US Navy was able to defeat them with reasoned arguments. Perhaps, if the British had debated the matter more openly and not in the critical year of a long drawn out conflict the Admiralty could have assembled arguments, like those deployed in the United States, that would have enabled it to retain a significant part of its impressive air arm. The fact is, unfortunately, that it did not.

The final note is a sad one; with the creation of the Royal Air Force on 1 April 1918, the RNAS lost much of its identity. Its wartime history did not appear in *Naval Operations* where it belonged but in *The war in the Air* making it difficult for later generations to understand the fundamental importance of aviation as an integral part of naval warfare. Even the distinctive officers’ ranks are largely lost to history as personalities are generally referred to by the military ranks they were given by the RAF in the last few months of 1918 rather than the RNAS rank in which they earned their status over a number of years. Raymond Collishaw describes how ‘I found myself a Major instead of a Squadron Commander’ and how the change ‘swept away so many of our customs, traditions and usages’. The White Ensign of the Royal Navy, which was always proudly flown at RN air stations, vanished, as did most naval terminology. The RNAS was a fascinating organisation that deserves to be studied and appreciated in greater detail for what it achieved and the legacy it has left naval aviation across the English-speaking world. It deserves to be better understood and I hope this paper will help to stimulate a wider interest in it.
Endnotes


Any discussion of aviation in the RAN during World War I (WWI) would bear one striking similarity with a discussion of aviation in the RAN during World War II - it would be brief. Simply, there was no institutional foundation in either case, yet aviation activities in the RAN during WWI might have led to an expectation of better things for the future. As I noted in the foreword to the proceedings of a workshop held in the Naval Aviation Museum in 1998:

…the future of naval aviation has always been bright. Nevertheless, as on many occasions in the past, the reality has lacked some of the expected lustre.

Thus context is all important, and in discussing aviation in the RAN during WWI, there is a need to consider the circumstances in which both the nation and the Navy found themselves as the war approached. This will show that there was a surprisingly early appreciation of what the rudimentary aircraft of the day might be able to contribute, even if the means to translate the potential into reality were often lacking. Similarly, some brief consideration of the circumstances of both nation and Navy in the immediate postwar years will shed some light on why the early promise was not fulfilled for many years.

Early Challenges: Nation, Navy and Air Arm

Naval developments

Even before Federation in 1901 there was general agreement that military threats to the Australian colonies would emerge mainly through either interference with the growing shipping trade and raids or full scale attacks against the mainland. In echoes of a debate that continues to the present day, however, there was little agreement as to whether any such threats were best met by naval forces or strong land defences. In the years immediately after Federation the situation became no clearer.

On one hand the British War Office supported the development of Australian land forces while on the other hand the Admiralty was indifferent about, if not opposed to, the creation of an Australian navy. The War Office position was founded on an expectation that an Australian army would be available for imperial duties - such as had been the case with the Boer War. This was certainly the line taken by Major General Sir Edward Hutton, the British Army officer seconded as the Commander of Australian Military Forces, although it was not what the Australian government had in mind for what was essentially a militia force.
The Admiralty position was clearly that Imperial defence (and thus Australia’s defence) would best be assured by the provision of a single Imperial navy - the Royal Navy. This was a position articulated by Gladstone when British Chancellor of the Exchequer to the effect that, ‘…strong British naval forces stationed in European waters were adequate to protect the outer posts of empire and colonies from attack’. It was reiterated by the Admiralty in about 1906 but, increasingly in the decade after Federation, this became a position in which Australians came to have less confidence.

While Australians debated the merits of having their own navy, the Naval Agreement Act 1903 ensured the retention in Sydney of the RN Australia Squadron, for which the Australian government paid the British government £200,000 per year. As Captain William Creswell pointed out to the government in February 1909, however, the RN Australia Squadron could be removed from Australian waters in time of war, thereby leaving the country with no effective local naval defence capacity. This situation was exacerbated by the limitation of the Colonial Naval Defence Act 1865 which confined the activities of Australian naval vessels to within 3nm of the coast - territorial waters.

Australian options were few in the years immediately after Federation, because of the conditions applying to revenue raised by the Commonwealth government. Section 87 of the Constitution demanded that for the first 10 years after Federation at least 75 per cent of Commonwealth net revenue from customs and excise duties had to be returned to the states. Nevertheless, spurred by the advocacy of Creswell and some political support, especially from Alfred Deakin, the national mood began to support the development of an Australian navy. Support began to emerge even from within the Admiralty, as dissatisfaction with the Naval Agreement 1903 was growing both in Australia and in Britain.

Thus by February 1909, agreement had been reached for Australia to build three destroyers - two in Britain and one in Australia. By the time of the Imperial Conference on Naval and Military Defence in July 1909, Britain had come to accept that Australia - and other Dominions - wanted to have their own naval forces and began to offer advice as to the preferred make up of what they called ‘fleet units’. The Admiralty proposed that the Australian navy should include an armoured cruiser, Prime Minister Deakin and the Admiralty were keen to include submarines and the commander of the Commonwealth Naval Forces, Captain Creswell, was firmly opposed to submarines, of which he had a very low opinion.

To assist with the development of Australia’s navy, the government sought expert advice from the Admiralty on the provision of supporting infrastructure. Admiral Sir Reginald Henderson subsequently led a small team on an extended visit to Australia, beginning in September 1910. His report, at the request of the Australian government, also included development of the force structure. Of interest, by 1933 he expected the Australian navy to comprise eight battle cruisers, 10 cruisers, 18 destroyers and 12 submarines.

The fact that submarines were considered - and acquired - at this early stage of the Australian navy’s development, even if against the wishes of Creswell, suggests an
ability to accept new weapons developments if they appeared to offer some promise in Australia’s circumstances. The fact that aviation was not considered for the navy at this point, around 1909 and 1910, should not come as a surprise, given the very rudimentary state of development of aviation around the world at the time.

**Aviation developments**

Yet the potential military application of aviation was being thought about in Australia, even before the first powered flight in the country. On 8 September 1909, the government, through the Army, announced that it would offer £5000 for a flying machine to be used for military purposes. Although the prize was not won, the contest spurred much interest in Australia. The first powered flight in Australia was made by Fred Custance on 17 March 1910 at Bolivar near Adelaide and before the end of that year the Military Board was considering establishing a military air arm. Surprisingly, perhaps, given that the first powered flight had taken place in December 1903, aircraft were already being used for reconnaissance in a civil war in Mexico in 1910.\(^\text{15}\)

Initially at least, the Army was reluctant to take any concrete action but was ‘encouraged’ to by a strong local media campaign. Thus, the *Commonwealth Gazette* of 30 December 1911 advertised for two pilots and mechanics for the ‘Military Air Corps’ and the Australian Flying Corps was established on 22 October 1912. Progress was relatively stately but by the beginning of March 1914 the first flight had been made from the new Central Flying School established at Point Cook near Melbourne.\(^\text{16}\) Crib Point, later to become the site for HMAS *Cerberus*, was one of the locations considered for the flying school.

Progress remained slow, very likely hindered by several factors including isolation from the centres of aviation development in the United States and Britain as well as limited resources and competing priorities. Indicative of this was the criticism expressed by Australian Harry Hawker, already a well-known aviator in Britain. He noted in 1914 that the aircraft being imported by Australia’s Department of Defence were outmoded and otherwise unsuitable for military use. Hawker also claimed that Australia needed seaplanes as the security threat would come from the sea and nominated that Melbourne and Sydney should each have four of these aircraft. This lack of progress in military aviation in Australia meant that the Australian Flying Corps was not ready to go to war until April 1915.\(^\text{17}\)

**Naval aviation stirrings**

Although aviation was not uppermost in the thinking of those looking to establish Australia’s navy in the critical period around 1909, it was not long before the possibilities of naval aviation came under serious consideration. Certainly by 1913 the RAN understood the potential value of naval aircraft for fleet scouting and reconnaissance and even for attacking ships at sea. This was made clear in the recommendations made by Captain Hughes-Onslow and Commander Thring for the defence of northern Australia, following
a tour of the region. Like Hawker, these two officers expected that ‘water planes’ would be the preferred type of aircraft for maritime operations.\textsuperscript{18}

Further evidence of the growing RAN interest in naval aviation came by way of correspondence from the Naval Board to the Secretary of the Department of Defence in June 1913 about a suitable site for a naval aviation facility. In a related note, Rear Admiral Creswell indicated that he wanted the military flying school being established at Point Cook to be a joint military and naval flying school.\textsuperscript{19} Although the document does not identify all three of the sites under consideration, they included Crib Point and Altona in Victoria. Captain Manisty advised that the Navy’s requirements included:

- a small aviation unit with two or three ‘water planes’ at each of three bases, all in the far north of the country

- land suitable for an aerodrome with ready access to water for land and water plane operations.\textsuperscript{20}

At the time, the newly formed RAN was lacking professional expertise and experience in many aspects of naval affairs. Consequently it relied on the RN for a great deal of support by way of people and advice. Thus, while Creswell knew that he wanted the naval air bases for defence of the RAN’s wartime operating bases, he also knew that he needed Admiralty advice on how to achieve his aims - especially as it related to operations in the tropics.\textsuperscript{21}

A considerable amount of correspondence flowed between the Naval Board and the Naval Representative in London Captain F Haworth-Booth, who found Captain Murray Sueter most willing to provide whatever information the RAN needed. Sueter made the point that the RN was only just establishing naval aviation as an observation service.\textsuperscript{22} Much of the information that passed to Navy Office concerned personnel matters and reflected RN experience in establishing the RN Air Service (RNAS).

According to Sueter the RN had found that the better educated sailors were inherently better suited for the RNAS. As he noted:

> Furthermore, candidates recruited from the Engine Room Artificer sources have proved themselves better for aviation work than selected young Seamen etc.\textsuperscript{23}

He also had some interesting and prescient points to make about aircrew. Officers were said to be preferred for aircrew and the RN aimed to give them four years in flying positions before returning them to general service for a year, after which they might return to flying. Although aviation in the RN had been underway for only a short time, already the authorities had developed a real understanding of the kind of people they would be dealing with. For example, Captain Haworth-Booth was told that:

> Captain Vivian stated… “the best pilots were usually highly strung individuals”, or as he described it, “a bundle of nerves” and endorsed this opinion by giving certain names”.\textsuperscript{24}
Haworth-Booth was also told that, ‘...three hours service per day is the most that could be expected from a pilot’. The start of another tradition became evident in the provision of additional pay for aviators - so-called risk pay. This ranged from 2/- per day while under training to 10/- per day for a squadron commander.

Other significant issues raised in this initial correspondence included the expected cost of aircraft; £2000 for small aircraft and £4000 for larger ones, and the need for additional aircrew beyond those needed to crew the assigned number of aircraft, because of the stresses associated with flying. Furthermore, the RN advised that the lack of a commercial aircraft maintenance and repair facility in Australia would cause difficulties for the maintenance of any aviation capability.

The information provided must have satisfied Creswell because on 11 October 1913 he approved the beginning of efforts to establish the Naval Aviation Service. But even as the Naval Board considered further development its RN advisor noted the importance of retaining naval aircraft under naval command and control. This was another prescient warning, given the subsequent experience in both countries. The Admiralty also warned the RAN that if it wanted trained naval aviators it would need to move quickly as the RN probably would not be able to provide them.

Subsequently, on 11 March 1914 the Naval Board considered and approved a proposal from the First Naval Member, Rear Admiral Creswell, to make provision in the 1914-15 Estimates for expenditure on a Naval Air Service. The initial expenditure would be on training of naval aviation personnel. The Naval Air Service would comprise initially of four ‘small’ seaplanes, expected to cost about £15,000, and for which provision would be made in the Estimates for 1915-16. The aircraft would be supported by a depot ship, which itself would be acquired primarily to support the submarine force. Creswell made the point to the Naval Board that he saw the primary value of naval aircraft to be an effective and cheap means of scouting against submarines.

Aviation and the RAN in World War I

Despite the promising beginning and the obvious intent to establish an Australian naval air service during the months which led up to the outbreak of WWI, little of consequence followed in the early years of the war. Moreover, the aviation developments that did involve RAN ships did so in the absence of any formal RAN naval aviation organisation. They also occurred in an environment of Admiralty control, noting that the Australian government ceded control of RAN ships to the Admiralty on 10 August 1914. As will be noted below, the lack of a formal aviation organisation in the RAN during the war was to have repercussions also on postwar developments.

Consequently, the naval aviation developments in which RAN ships participated must be seen in the context of the RN-led operations or developments in which they occurred. A factor that may have contributed to relatively slow RN seagoing aviation development was the involvement of the RNAS in the defence of Great Britain early in the war, until
The Royal Flying Corps (RFC) took on the responsibility in early 1916. Marder quotes Donald McIntyre on this issue:

There can be little doubt that this large and expensive commitment adversely affected the development of a ship-borne air arm.\(^{29}\)

Yet, the RN had fitted HMS *Hermes* with a forecastle-mounted flying off platform in 1913 and had three seaplane carriers in service by the early stages of the war. These ships were not capable of launching or recovering their aircraft. The limited capacity of the seaplanes of the day to operate from any but relatively calm waters led to the development of flight decks by December 1914 - even if they were rarely used at first. Indeed, the RN enjoyed limited success with so-called aircraft carriers during the war. As these developments were occurring the RN also experimented with rigid airships, technology in which Germany held a significant lead. Support for airships in the RN was lukewarm - with First Lord Churchill, for example, being firmly opposed to them. These mixed results with various naval aviation developments led also to the proposals to fly land planes from major warships, even though Admiral Beatty, Commander-in-Chief of the Grand Fleet had reservations about them flying from battleships and battle cruisers, because of the limitations they might impose on manoeuvrability and on gunnery.\(^{30}\) On the other hand, he expressed strong support for the use of aircraft in support of fleet gunnery, if they could be operated practically from turret-mounted platforms.\(^{31}\) The operation of land planes from major warships was the focus of most of the RAN’s experiences with naval aviation during the war.

**HMAS *Brisbane***

Intriguingly, the light cruiser HMAS *Brisbane* was the first RAN ship to use an aircraft at sea. The ship commissioned on 30 June 1916 and subsequently spent much of her time in the Indian and south Pacific oceans, after being initially assigned to the Mediterranean. Thus, the ship was not exposed directly to the main ferment of aviation development in British waters. During an Indian Ocean patrol in early 1917, *Brisbane* embarked a Sopwith Baby, belonging to HMS *Raven*, to help search for the German commerce raider SMS *Wolf*. The Baby floatplane had to be lowered into the water and recovered after flight by crane. For several weeks the aircraft flew two sorties daily. It was a single seat scouting aircraft with a maximum speed of 100mph and an endurance of 2 hours.\(^{32}\) Despite the innovative approach to the task of searching for commerce raiders, the aircraft did not change what was ultimately a fruitless search.\(^{33}\)

In June 1917 *Brisbane* returned to Australian waters and had to surrender the floatplane on doing so. Captain Cumberlege regretted the loss and became a vocal advocate for the use of aircraft in the defence of Australia. In a report to the Naval Board, Cumberlege advised that *Brisbane* could carry two Sopwith Baby floatplanes on the boat deck without any problems, admitting also that they could only be flown in relatively calm conditions. His report provided further detail on how the aircraft might be operated, with two flights per day and a set of one hour search patterns. Cumberlege also provided some detail on
the support needs of a two aircraft flight and suggested that twin engine flying boats would be needed for coastal patrols.\textsuperscript{34}

Cumberlege’s letter was seen by Minister of the Navy, Joseph Cook, who in a penned script to it noted that the report stopped short of discussing ‘…the general organization of an Australian Air Service’. Coming to Cumberlege’s defence, Creswell pointed out that it was unfair to expect the commanding officer of \textit{Brisbane} to provide such information, especially given that the general naval defence policy - which would determine the shape of a future Naval Air Service - was still in production.\textsuperscript{35}

Subsequently, in June 1918, while patrolling around the Torres Strait, Cumberlege reported that ‘…Torres Strait could be swept by aeroplanes with the greatest facility’.\textsuperscript{36} He also recommended that a seaplane station be established at Thursday Island, but the Department of the Navy believed that it was altogether too difficult to get aircraft (assuming that any were available) to Thursday Island in a reasonable time.\textsuperscript{37}

\textbf{Balloons aloft - another approach to naval aviation}

From 1915 the RN had operated patrols in the Strait of Otranto between Italy and Albania. The patrols comprised mobile barrages designed to prevent the passage of Austrian and German submarines from the Adriatic Sea into the Mediterranean. The forces employed in the patrols included destroyers sometimes equipped with kite balloons and drifters (lightly armed trawlers).\textsuperscript{38} Later in the war the barrage was supplemented with mined nets laid across the Strait.

The RAN contribution to the ‘Otranto Barrage’, beginning in October 1917, comprised six destroyers based on Brindisi in Italy.\textsuperscript{39} Their major role involved patrolling some 10-20nm north of the fixed barrage, either to detect submarines and attacking them with depth charges or keeping them submerged and forcing them to surface to recharge, or to push them further south onto the drifters. In either case depth charges were used to attack the submarines. The surface ship patrols were supported by British and Italian aircraft based at Otranto, which attempted to give early warning of any approaching submarines.\textsuperscript{40}

Early in 1918 the Australian destroyers \textit{Huon}, \textit{Parramatta} and \textit{Yarra}, while engaged in the Otranto Barrage, were fitted with manned tethered observation balloons to assist with submarine search. The Australian ships had only limited success while using the balloons. For example, on 20 May 1918 \textit{Parramatta}’s balloon observer sighted a submarine on the surface, but the subsequent engagement was unsuccessful. Similarly, on 18 July 1918 the observer in \textit{Huon}’s balloon sighted a submarine but the subsequent attempt to attack the submarine was unsuccessful.\textsuperscript{41}

On at least some occasions the destroyer operating the balloon was accompanied by a ‘killer’ destroyer which had the task of immediately following up any submarine detections and attacking with gunfire or depth charges.\textsuperscript{42} Nevertheless, overall the use of balloons in this way, however innovative, was not a great success - as was the case
The War at Sea: 1914-18

with the entire Otranto Barrage.\textsuperscript{43} The balloons proved to be difficult to handle, had a tendency to break away and were somewhat fragile. For example, on the occasion that \textit{Parramatta}'s balloon observer sighted a submarine, the winch jammed and the balloon tore apart and fell into the sea. Another unfortunate drawback with the balloons was the potential for them to advertise the position of the towing ships.\textsuperscript{44}

Although this use of manned balloons for anti-submarine warfare did not prove to be successful it did represent an innovative approach to a problem that continues to offer great challenges today. Notably too, the experiment caused Australian naval authorities to consider the use of tethered balloons for the postwar Navy.\textsuperscript{45}

**HMAS Sydney - hacking the shad!**

Of all of the RAN warships engaged in WWI, HMAS \textit{Sydney} had the greatest exposure to naval aviation developments. Bob Nicholls, in \textit{Statesmen and Sailors}, claims that a Sopwith Camel flying from \textit{Sydney} may have been the first embarked aircraft in combat with a Zeppelin in the North Sea in May 1917.\textsuperscript{46} That was almost certainly not the case, although \textit{Sydney} sometimes in company with \textit{Campania}, with her aircraft embarked, made several sorties into the North Sea on anti-Zeppelin patrols, in April and May 1917.\textsuperscript{47} At that point \textit{Sydney} was not capable of operating aircraft.

\textit{Sydney}’s introduction to naval aviation came with the appointment of Captain John Dumaresq as commanding officer on 2 April 1917.\textsuperscript{48} At the time, Dumaresq was in the midst of an energetic campaign to convince the Admiralty to fit light cruisers with flying-off platforms so that they could embark aircraft and be better able to deal with the Zeppelin threat.\textsuperscript{49} As previously noted the Commander-in-Chief of the Grand Fleet was hesitant about modifying the battleships and battle cruisers for flying operations, but he agreed to have the light cruisers modified.\textsuperscript{50}

The required modifications to \textit{Sydney} were completed by 16 November 1917, and included the rigging of a flying platform above the forward gun turret. The first flight from the ship was made on 8 December 1917, by Flight Sub-Lieutenant H Brearley. The pilot belonged to HMS \textit{Dublin} which at the time was already carrying a Sopwith Pup. That \textit{Sydney} was at the forefront of naval aviation developments at this time is evident from the fact that the first ever take-off from a cruiser’s flying platform was conducted by a Pup just a few months before, in June 1917, from HMS \textit{Yarmouth}. The Sopwith Pup performed extremely well in combat over the Western Front and was used for many of RN aviation development efforts. It replaced the floatplane on board seaplane carriers such as \textit{Campania} and \textit{Manxman} from early 1916.\textsuperscript{51}

Brearley reported very favourably of his first experience flying off \textit{Sydney}. The ship was steaming at 12kts and the wind speed was 27kts, while the flying off platform was a staggering 22’ 6” long (about 7m) and the distance from the main wheels to the leading edge of the platform was 16’ (5m).\textsuperscript{52} The Pup itself was just over 19’ long. And the take off run was 14’ (4.5m). While the take off process was being developed, there was still
much to be done with respect to landing and recovery of the aircraft. At this stage the Pups ditched near the launching or other friendly ship and were lifted back on board. Brearley, even at this early stage, indicated that he wanted to get a Sopwith Camel as soon as possible, a better performing aircraft and one for which *Sydney*’s flying-off platform had been designed.\(^{53}\)

Another trial flight was conducted on 17 December 1917, this time with the platform trained to port. By 24 December, Brearley had reported more fully to the commanding officer of *Sydney*, noting minimum flying off speeds of between 18 and 22kts, and providing information on hangar and lashing arrangements for the aircraft.\(^{54}\) As a result of these trials and no doubt, Dumaresq’s urging, *Sydney* had her own aircraft, a Sopwith Camel, by April 1918, and the ship was being used as a template for the embarkation of aircraft in other cruisers.\(^{55}\)

*Sydney*’s first operational assessment of the embarked aircraft came in June 1918 when she accompanied the Harwich Force, sent into the North Sea by Admiral Beatty, to test German support for its minelayers operating in the Heligoland Bight.\(^{56}\) Without warning, late in the afternoon of 1 June the force was attacked by German aircraft, which overflew the light cruisers to bomb the battle cruisers. As the aircraft approached the light cruisers for the second time, on their way eastward to home base, both *Sydney* and *Melbourne* launched their Sopwith Camels. Both ships had air and ground crews at immediate readiness for such an eventuality and were able to react very quickly.

While some details of the subsequent events are still unclear and will probably remain so, much of the story has been corroborated. *Melbourne*’s Camel, flown by Flight Lieutenant Gibson, lost sight of its adversary relatively soon, broke off the chase and returned to its ship. *Sydney*’s Camel, flown by Flight Lieutenant AC Sharwood, chased the German aircraft for about 60nm and eventually engaged one of them. According to Sharwood’s post-flight account, having climbed to 2000 feet initially he then saw a German two seater and two other aircraft at about 8000 feet and heading southeast. Having chased the aircraft for about 20 minutes Sharwood noted that he caught up with the ‘tail end Charlie’ at about 5000 feet. He then opened fire but came under fire himself from one of the single seater aircraft.\(^{57}\)

Sharwood believed he had hit the single seater and tried to follow it as it dived through cloud. By his account, the two seaters then opened fire on him. He then recounted that he was forced to break off the action because of jammed guns and a lack of ammunition. Not surprisingly, he had difficulty finding *Sydney* and after about 20 minutes of searching and consideration of making for Denmark, he found a group of RN destroyers and light cruisers. After one of them briefly opened fire on him he ditched the aircraft next to HMS *Sharpshooter*, whose crew recovered him while HMS *Canterbury* recovered the aircraft.\(^{58}\)

While Sharwood may have shot down one of the German aircraft he chased it cannot be confirmed, because of a lack of corroborating evidence on the British side and a lack of any information confirming the incident in the German records searched thus far. Information recently retrieved from those records mentions the attack on the ‘British
Fleet’ by aircraft from Borkum and their being attacked in turn by a ‘Spad’ - a French-designed fighter unlikely to have been found over the North Sea in the Heligoland Bight at any time.\textsuperscript{59}

Of particular interest is the acknowledgement in the German records that a reconnaissance aircraft located the British and Australian ships and then called in the \textit{Kampfstaffel} which conducted the attack.\textsuperscript{60} The level of coordination reflected in this use of reconnaissance and attack aircraft is striking and indicates a very mature appreciation of the potential for aircraft in maritime operations. Somewhat confusingly, and incorrectly, there is a claim in the document entitled ‘Australians in the RNAS’, that Sharwood drove away the attacking aircraft before they could spot the British and Australian ships.\textsuperscript{61} The German report is quite perfunctory in its reference to the engagement with Sharwood’s aircraft, simply noting that ‘they exchanged fire’.\textsuperscript{62} Sharwood himself, in his 1973 letter appeared quite confident that he had shot down a German aircraft and claimed that it might well have been:

\begin{quote}
...the first time that a Hun had been brought down by a machine launched by a ship at sea as part of the Grand Fleet, and certainly [sic] the first from an Australian ship.\textsuperscript{63}
\end{quote}

One of the amusing sidelights to this episode is Sharwood’s description of the method of landing a Camel on the water, provided in a letter he wrote in 1973.

\begin{quote}
...the Camel was brought down to about four or five feet above the wave tops and held off until it stalled. Then the fun began. The safety belt had been released and when the wheels...struck the water perhaps at 40 or 45 knots the tail went up like greased lightning and the nose...plunged down into the sea...the pilot was flicked out as the tail went up...and he went into the water head first with a (lifejacket) inflated and a leather coat on, about 20 yards ahead of the Camel.\textsuperscript{64}
\end{quote}

Lest you think this is fanciful, Sharwood goes on to say that because the cut out in the trailing edge of the upper wing was not big enough he at first lost some skin during this landing manoeuvre and had his ‘joiner mechanic’ enlarge the cut out.\textsuperscript{65}

\textbf{HMAS Melbourne}

While \textit{Sydney} benefited from Dumaresq’s drive to gain an embarked aviation capability, \textit{Melbourne} got its flying-off platform only a few weeks later.\textsuperscript{66} Subsequently, Flight Lieutenant LB Gibson embarked with his Camel on 14 April 1918, with the first recorded flying activity taking place on 10 May 1918.\textsuperscript{67} \textit{Melbourne} accompanied \textit{Sydney} on the North Sea anti-mining operation noted above and Gibson launched in \textit{Melbourne}’s Camel together with Sharwood to counter the German air attack on the afternoon of 1 June 1918. After losing sight of his adversary, Gibson returned to land near \textit{Melbourne}.

After this encounter \textit{Melbourne} reported observations on flying from it to the Rear Admiral Commanding the Second Light Cruiser Squadron. The letter noted the difficulty involved
in trying to find and then fight an opponent after being launched and noted the already established fact that to successfully attack enemy aircraft the ship-borne aircraft had to be airborne and waiting for them. At the very least this was an early acknowledgement of the value of having a standing combat air patrol. Interestingly, Dumaresq of Sydney had noted that Melbourne’s pilot had not known as he took off that Sydney’s aircraft would also be launched, and that Gibson at no time sighted Sharwood’s aircraft. Dumaresq suggested also that there was a need for aircraft to practice rendezvous procedures to enable better coordinated operations.

Dumaresq’s letter represented a preference for getting the aircraft back to land rather than having it ditch at sea. The letter indicated also that those in Melbourne were looking for ways to reduce the aircraft’s speed on ditching, with drogues or parachutes among the options. In this they had the welfare of the pilots and the cost of the aircraft well in mind. Melbourne continued to operate its aircraft to the end of the war, although at least some of the flying took place during exercising around Scapa Flow in September 1918.

HMAS Australia

Although the main focus of aviation development for surface warships was on the light cruisers, the battle cruisers did receive attention late in the war. HMAS Australia became part of naval aviation history with the first launch of an aircraft from her main deck - not a turret-mounted platform - on 18 December 1917. This was the first recorded deck launch of an aircraft and was conducted by Flight Lieutenant FM Fox. Further experimental flights were conducted from a trainable turret-mounted platform on March, 4 April and 14 May 1918. The first two of these involved a two seater aircraft - a Sopwith 11/2 Strutter, with the 7 March flight apparently being the first by a two-seater from a turret-mounted platform at sea. This flight was conducted with the ship at anchor and without the observer or any additional equipment. The pilot on this occasion was Flight Commander Donald from HMS Repulse, who had finished up in the water when trying to the same manoeuvre from his own ship some days previously. The advantage of the trainable turret platform was that the aircraft could take off into wind without the ship having to alter course.

Trials such as these led to each capital ship carrying two aircraft; one being a single seat fighter carried on the after turret platform and a two-seater on the forward turret platform. The fighter’s main role was to bring down Zeppelins and the two-seater was carried for reconnaissance work.

The RAN prepares for a Naval Air Service

Thus, as the war drew to a close the RAN had been exposed to and had participated in several aspects of naval aviation development. That the RAN came to appreciate the real and potential value of naval aviation was clear from the request made to the Admiralty in December 1917. The RAN sought cost and availability information for four Sopwith Baby aircraft - or other more suitable aircraft - as well as the loan of air and ground
crews to operate the aircraft. The Admiralty response noted that the RN was no longer planning to operate floatplanes from warships and that the Sopwith Baby was no longer available as the type was ‘dying out’. This request for aircraft appears to have been at least partly the result of Cumberledge’s experiences and enthusiasm for embarking two Sopwith babies.

At the end of April 1918 the Admiralty provided a further response, through the Naval Adviser in London, to the effect that the RN could spare neither aircraft nor associated personnel for the RAN. RN advice was that Australia should seek aircraft from the United States and conduct flying training in Australia. It was to be almost 50 years before the RAN turned to the US Navy for its aircraft. Nevertheless, British authorities continued to provide information to the RAN, following up in July 1918 with advice that training of pilots in Australia was probably not feasible at that time because of the limited capacity available. Surprisingly, considering the earlier correspondence, and perhaps reflecting the coming end of the war, this cablegram from the Secretary of State for the Colonies suggested that if Australia procured seaplanes from the United States, that Britain would be able to provide a nucleus of trained aircrew. The cablegram went on to indicate that the Secretary of State would make enquiries of the US authorities as to the availability of seaplanes ‘if your Ministers desire’. Worth noting is the reliance of Australia at this point on the United Kingdom for its foreign policy overtures.

Similarly, in May 1918 the RAN asked the Admiralty for a ‘spare’ seaplane carrier to assist in patrolling the Australian coast. The request was rejected because of the low level of threat in Australian waters and the ongoing submarine threat in the Mediterranean. Further evidence of the interest in naval aviation was provided in May 1918 when Navy Office asked whether the British Air Board would be able to provide three airship units, each of two airships, as well as six kite balloons, together with skilled personnel and associated equipment within 12 months. The Air Board agreed to this, with the proviso that no airships would be available before 1919 and that it would not be able to provide a significant number of personnel. There was further communication as to the provision and training of crews and support personnel both from the United Kingdom and from Australia. Notably, the Australian input on naval aviation was being provided by Wing Commander H Maguire, RNAS, who was serving as the Air Service Adviser to the Department of the Navy in Melbourne.

Further correspondence from the Admiralty also sought indications from the RAN as to how the airships would be employed, so that it could advise sensibly on manpower and other resource matters. The initiative seems to have come to a halt with the Admiralty advice in September 1918 that ‘…owing to urgent requirements in Home Waters they find it at present impossible to supply Airships indicated’.
Postwar Developments

Consideration of the postwar Navy had been underway since at least 1915, when Commander Thring noted that:

…the most important defence force in Australia would be the Royal Australian Navy and its air wing.\(^8^2\)

Furthermore, the exposure of RAN ships to aviation developments within the RN during the war, together with the enthusiastic support of senior officers like captains Dumaresq and Cumberledge, should have provided sufficient impetus for the establishment of an Australian Naval Air Service to receive serious consideration towards or after the end of the war. However, there were complications. For example, while Navy Office in Melbourne and British authorities communicated over the requested provision of airships and kite balloons in mid-1918, the Naval Representative, London was advised, with Creswell’s concurrence that no definite orders were to be placed for airships or kite balloons because government approval had not been received.\(^8^3\)

Although the RAN was clearly intent on establishing its own air service, government policy and need to plan for the return of the country to a peacetime footing, together with inter-Service bickering over the control of aviation meant that the result was by no means clear cut even as the war ended. Had the Navy been able to establish its air service before or during the war then the situation may have been quite different. It is one thing to keep an existing organisation alive in hard times, it is another to establish one from scratch in those circumstances.

Nevertheless, an indication of the Navy’s determination to press ahead is provided by Wing Commander Maguire’s minute to the Naval Secretary in August 1918, declaring that the conditions of service for the air service needed to be decided ‘at once’ and that they needed to be identical to those of the Army, to avoid competition for recruits.\(^8^4\) In this minute, Maguire alluded to the potential for the two air arms - Naval and Military - to amalgamate in the future. The Department of Defence reply to this suggestion raised no objection to discussion on the matter but did point out that:

…it appears rather premature to consider the question of conditions of service before the extent and nature of the service have been settled by the Council of Defence.\(^8^5\)

The RAN was keen to ensure that the nucleus of its Naval Air Service personnel had prior naval aviation experience, so that they could contribute to the development of the RAN Air Service. This desire met opposition from one Member of Parliament who threatened to move that the First Naval Member’s salary be reduced by £100 if he did not consider aviators from the Australian Flying Corps.\(^8^6\)
That the establishment of a Naval Air Service was not a foregone conclusion can be sensed from correspondence at the end of 1918, in which the Rear Admiral Commanding the Australian Fleet advised Navy Office that unless the government intended establishing a Naval Air Service incorporating a number of airfields and at least one ‘mobile aircraft carrier’ then RAN ships returning to Australia should not keep their aircraft - but should remain fitted for flying operations.\(^\text{87}\) Approval was given later to have the ships fitted with kite balloon winches, but only if it did not involve any delay.\(^\text{88}\)

Another very significant factor which contributed to the ultimate failure to establish a Naval Air Service along the lines desired by the Navy was the severe funding cuts applied to defence in the period after the war, together with the impact of the Washington Naval Treaty. Both of these influences conspired to generate major funding cuts for the Navy, Army and even for the fledgling Air Force. For example naval expenditure dropped from £9.4m in 1918-19 to £2.28m in 1923-24. Naval strength also dropped from 36 ships in commission in 1919 to 11 ships in 1924 supported by 3667 permanent personnel. The Air Force was in no better position in 1924, comprising 65 officers, 300 men and just two aircraft fit for war - both seaplanes.\(^\text{89}\)

Whatever chance the Navy had of establishing its Air Service disappeared in 1928 when the long running and concerted campaign by Wing Commander RC Williams eventually succeeded in having the Navy’s aviation case quashed.\(^\text{90}\)

**Conclusions**

In the years immediately before the outbreak of WWI and even with aviation and the RAN in their infancy, the RAN recognised quickly at least some of the potential which aircraft offered in support of naval operations. The RAN moved to establish an air service which it hoped would contribute to scouting, reconnaissance and attacks on shipping. In so doing, the Navy was hampered by several factors. It was geographically remote from the centres of aviation development throughout the world and it lacked any expertise of its own in aviation matters. Consequently, the Navy found it difficult to remain fully abreast of the latest developments, especially in Britain, which would be the main source of aviation expertise and equipment for Australia and for the RAN especially. Furthermore, financial and personnel resources were limited, which made advances into new aspects of maritime warfare difficult to support. Thus at the outbreak of WWI the RAN had little or no naval aviation infrastructure in place.

Despite the hesitant organisational start, several RAN ships gained significant exposure to developing naval aviation during the war. Predictably, much of the aviation activity in which they engaged was experimental; including the first ever take off from a ship’s upper deck in *Australia*. Important operational experience was also gained, notably with *Sydney* and Sharwood’s attempt to shoot down German scouting and attacking aircraft. The value of this particular operation may well have been enhanced by an appreciation of the German use of scouting aircraft followed up by air attack.
One outcome of the RAN exposure was a growing appreciation of potential and actual uses of naval aviation on the part of several of its senior officers. Dumaresq and Cumberlege (both admittedly RN) became very strong proponents of naval aviation, with Dumaresq especially well placed to influence RAN policy in the field, with his transfer to the RAN. Aviation relied for much of its progress in several military forces to the efforts of a small cadre of proponents - or zealots even - and for it to thrive in the RAN such support would certainly be needed.

The RAN certainly heeded the advice it received from officers such as Dumaresq and Cumberlege, as well as that from its own Naval Air Adviser, appointed from the RN. Undoubtedly, it was influenced also by general reporting from the war which would have given further indications of the growing importance of aviation in modern warfare. As the war drew to an end, the Navy sought aircraft, airships, kite balloons, a seaplane carrier and trained personnel from the RN. It also began the bureaucratic process of establishing an Australian Naval Air Service, but for the most part its ambitions were frustrated.

That the RAN was unable to establish its own Naval Air Service after WWI can be attributed to three main factors. First, in the immediate postwar years there was simply no appetite for military affairs and the substantial spending that they implied. Thus naval arms limitation agreements and severe budget cuts put paid to most postwar naval (and other Service) plans. Secondly, inter-Service rivalry, first with the Army and then with the RAAF after its formation in 1921, blunted RAN arguments for a separate naval air service. Finally, the inability of the Navy to establish its air service before or during WWI made it even more difficult to do so in the inhospitable environment of the 1920s.

It would take another world war, further demonstration of the effectiveness of naval aviation and yet more courageous and persistent advocacy, before the RAN finally got its Fleet Air Arm.

Endnotes
* I am very much indebted to Dr David Stevens for access to archival records and photographs without which this paper would be much poorer.
6 Naval Agreement Act 1903, p. 3.
10 Alfred Deakin was Prime Minister from 24 September 1903 to 27 April 1904, 5 July 1905 to 13 November 1908 and 2 June 1909 and 29 April 1910, championed the cause of Australian naval power and provided the initial funding for what was to become the RAN. *Australian Dictionary of Biography*, http://adb.anu.edu.au/biography/deakin-alfred.
16 Copley, *Australians in the Air*, p. 15.
19 National Archives of Australia (NAA), MP1049/1 1914/0223, Minute comment by Rear Admiral Creswell, dated 6 June 1913.
20 NAA, MP1049/1 1914/0223, letter 13/0137 from Captain Manisty to Secretary Department of Defence, dated 6 June 1913.
21 NAA, MP1049/1 1914/0223, Minute comment by Rear Admiral Creswell, dated 6 June 1913.
22 NAA, MP1049/1 1914/0223, letter from Naval Adviser in the High Commission, London, received in Navy Office Melbourne, 7 October 1913.
23 NAA, MP1049/1 1914/0223, letter from Naval Adviser in the High Commission, London, received in Navy Office Melbourne, 7 October 1913.
24 NAA, MP1049/1 1914/0223, letter from Naval Adviser in the High Commission, London, received in Navy Office Melbourne, 7 October 1913.
25 NAA, MP1049/1 1914/0223, letter from Naval Adviser in the High Commission, London, received in Navy Office Melbourne, 7 October 1913.
26 NAA, MP1049/1 1914/0223, Naval Adviser, London, 60th general report, dated 14 May 1914.
27 NAA, MP1049/1 1914/0223, Rear Admiral Creswell letter to Naval Representative London, dated 22 June 1914.
30 See Marder, *From The Dreadnought to Scapa Flow. 1917*, vol IV (Year of Crisis), pp. 5, 10-11, 16; and NAA, MP1049/1 1914/0223, letter from Commander in chief Grand Fleet to the Admiralty, dated 14 October 1917.
31 NAA, MP1049/1 1914/0223, letter H.S.A. 341 548 No 107, from Commander in Chief Grand Fleet to Vice Admiral Battlecruiser Fleet, dated 4 June 1918.


37 NAA, MP1049/1 1914/0223, extract from HMAS Brisbane letter dated 22 June 1918 and Department of the Navy Minute 18/0353, seen by RADM Creswell on 4 July 1918.


45 NAA, MP1049/1/2001/00493071 1919/063, Navy Office telegram to Naval Representative UK, 24 May 1918.


48 Although born in Australia, Captain Dumaresq had spent most of his life in England, transferred from the RN to the RAN during the war and subsequently reverted to the RN in 1922. See, Peter Dennis (et al), *The Oxford Companion to Australian Military History*, Oxford University Press, South Melbourne, (2nd ed), 2008, p. 189.


50 NAA, MP1049/1 1914/0223, Commander in Chief Grand Fleet letter to the Admiralty, dated 14 October 1917.


53 NAA, MP1049/1 1914/0223, HMAS Sydney letter H.S.A. 335 744, dated 8 December 1917.


57 NAA, MP1049/1 1914/0223, HMAS Sydney letter (by Flt Lt Sharwood) 341 546 547, dated 4 June 1918.

58 NAA, MP1049/1 1914/0223, HMAS Sydney letter (by Flt Lt Sharwood) 341 546 547, dated 4 June 1918.

59 Email from Nina Staehle, Report and file list from Bundesarchiv, dated 8 April 2013. My thanks to Dr David Stevens for access to this information.
The War at Sea: 1914-18

60 Report and file list from Bundesarchiv.
62 Report and file list from Bundesarchiv.
68 NAA, MP1049/1 1914/0223, HMAS Melbourne letter H.S.A. 341 548 No. 107, dated 4 June 1918.
69 Australian Archives Bundle 31, Box 8, Home Station Miscellaneous, Flying off Decks of Battle Cruisers and Light Cruisers – HMAS Sydney, HMAS Sydney letter H.S.A 341 545 No. 28/18/7, dated 5 June 1918.
71 Jose, The Royal Australian Navy, p. 281; NAA, MP1049/1 1914/0223, Letter from Admiral Commanding Aircraft, H.S.A. 335 734, No. 23, 7 March 1918.
73 NAA, MP1049/1/2001/00493071 1919/063, Navy Office telegram dated 22 December 1917.
75 NAA, MP1049/1/2001/00493071 1919/063, Naval Representative United Kingdom telegram dated 30 April 1918.
76 NAA, MP1049/1/2001/00493071 1919/063, cablegram from Secretary of State for the Colonies, dated 22 July 1918.
78 NAA, MP1049/1 1918/0436, Navy Office telegram dated 24 May 1918.
79 NAA, MP1049/1 1918/0436, Naval Representative United Kingdom telegrams dated 17 July 1918 and 7 August 1918.
80 NAA, MP1049/1 1918/0436, Naval Representative United Kingdom telegram dated 3 July 1918.
81 NAA, MP1049/1 1918/0436, Naval Representative United Kingdom telegram dated 24 September 1918.
83 NAA, MP1049/1 1918/0436, Navy Office telegram, dated 18 July 1918.
84 NAA, MP1049/1 1918/0577, Wing Cdr H. Maguire Minute Inauguration of Australian Naval Air Service, dated 30 August 1918.
85 NAA, MP1049/1 1918/0577, Secretary Department of Defence Minute, Naval and Military Aviation, dated 6 September 1918.
86 See NAA, MP472/1 40/17/7437, Letter from Mr WM Kelly MHR, dated 22 October 1917 and Navy Office Minute, Royal Australian Naval Air Service, dated 13 May 1918.
87 NAA, MP1049/1 1918/0577, Navy Office telegram dated 25 December 1918.
88 NAA, MP1049/1 1918/0577, Navy Office telegram dated 4 March 1919.
The Australian mass media in World War 1 was almost exclusively newspaper-based with the reporting largely consisting of:

- press agency reporting of naval actions and proceedings
- personal letters and submissions from serving naval personnel
- very occasional, officially released, information.

All these reports were subject to a strict censorship regime which inhibited comment and perceived press freedom. It also largely resulted in terse, short reports - mostly comprising one paragraph.

Media censorship controlled press coverage of both domestic and international events, and in terms of military developments was closely aligned to propaganda campaigns that actively promoted the Allied forces. Propagandist material such as cartoons, photographs and appropriate articles for the newspapers was disseminated to Australia from London. Overseas news was limited to two cable services that originated in Britain, and daily newspapers were conscious of their imperial mission. News emphasised Allied victories but also promoted stereotypes of the enemy ‘Hun’, and published exaggerated or untrue stories of German atrocities. Australians were presented with Allied propaganda throughout the war, from the ‘Brave Little Belgium’ campaign of 1914-15 to the call for the German Kaiser to be hanged in 1918.¹

In Adelaide, The Advertiser of 19 August 1914 gave an early comment on the perceived unreasonableness of wartime censorship of the press, specifically where a lack of coordination within the censorship system was apparent.² The Advertiser published two items: ‘Raids on German Possessions’ where two British cruisers landed parties at Dar-es-Salam to attack German infrastructure; and ‘Another Prize at Sea; HMAS PIONEER The Captor’, where Pioneer sent a prize crew to seize a German merchant ship and sail it to Fremantle. The Pioneer report was ascribed to a telegram received by the Minister for Defence and presumably released by his office to the Melbourne Age. While the Melbourne censors had approved the release of these items, the Adelaide censors had refused. The Advertiser published them, crediting The Age, but made the point that the lack of coordination should be addressed by ‘federal authorities’.

While national and regional press censor coordination may well have improved over the course of the war, relationships between newspaper editors and the censorship authorities were always strained. Accordingly, the tenor of RAN reporting was relatively colourless, alleviated only by the ‘human interest’ angle occasionally submitted by RAN officers and ratings in letters to their families and to home town papers.
Fleet War Preparations

On the eve of war the newspapers gave running reports of fleet movements for concentration and war preparations with some speculations as to deployments. *The Queenslander* of 8 August 1914 reported recent fleet unit movements which included HMAS *Encounter* and two other warships passing Cape Moreton headed south on 31 July. HMA Ships *Australia*, *Warrego* and *Yarra* in Hervey Bay were ordered to proceed to Sydney; the movements rumoured to be initiated by Admiralty signals warning of imminent hostilities. Reports of subsequent fleet deployments, based on ‘some degree of authority’ were that *Australia*, *Sydney*, *Melbourne* and *Encounter* would patrol the Commonwealth coast and the China Station while the three destroyers and the submarines would be detailed for harbour defence.

*The Sydney Morning Herald* of 4 August 1914 under the title ‘Splendid Work; Message from the Admiral; Scene on the Flagship’ began with Rear Admiral Patey’s signal from HMAS *Australia* acknowledging the work of dockyards, naval establishments and officers and ratings in preparing the fleet unit for hostilities. The fleet units had rendezvoused in Sydney for mobilisation and from 1600 on 3 August *Encounter* moved from Cockatoo Island and moored in Farm Cove near *Australia* where both vessels coaled from colliers. Friends and relatives of *Australia*’s crew were invited on board and all were conscious of the urgency of the occasion and sought the latest news from the evening papers. The report provides a cameo of the occasion where crew members, reportedly still in their coaling rig, discussed the war news with their visitors. The tenor of the reported banter is perhaps lost on readers 100 years later. Vignettes included the comments of one man who claimed that *Australia* would not fire a shot if war came, to which a gunner retorted: ‘You’re all right, anyhow. I saw the carpenter cutting out a nice pair of wooden legs for you!’ A rating asked another: ‘Hullo Bill, got your ticket [for shore leave]?’ Bill replied: ‘Yea; I got it but I tore it up’. ‘Never mind. Your next ticket will take you there’ and the humourist pointed significantly upwards. According to the reporter ‘there was no trace of anxiety and if it were not for the signs all round they might have been engaged in preparing for a picnic’. When a visitor asked a ‘burly-looking’ petty officer ‘how she would do’ he replied: ‘Do! She’ll do all right. There’s a captain on one of those guns who has never missed his mark day or night. She’ll do all right’ was the confident reply’.

Reporting the Maritime War

An example of personalised reports of RAN activity is illustrated by the *Bendigo Advertiser*’s 14 November 1914 article ‘Australian Fleet; Various actions described’. A Bendegonian, James Clifford, identified as a ‘wireless operator’ in *Sydney* wrote several letters to his brother. In one letter he described the Australian Naval and Military Expeditionary Force’s (ANMEF) actions in Rabaul. Headed: ‘In action in New Guinea, “Rabaul” New Guinea, 19th September’, Clifford records *Sydney*’s steaming from Port Moresby to Hertbertshohe where, on 11 September, the ANMEF attacked the German settlement which was taken after four days of fighting, and included *Sydney* shelling
the town with its 6-inch guns. Clifford was personally involved in the landing party and was issued with a rifle and 150 rounds of ammunition. He also mentioned the casualties and the loss of the submarine AE1 on 14 September and went on to elaborate in some detail Sydney’s subsequent movements. After departing for Sydney for troop convoy escort to Aden, the ship was recalled to Rabaul when abreast Townsville because the Admiralty had signalled the flagship Australia that a German fleet had been reported 700nm north of Rabaul. After coaling at Rabaul, Sydney left for the Philippines with the ship’s company expecting to meet the German ships en route. By this time the crew was ‘just about knocked up. It is that hot on watch here that we sit taking signals with only a pair of “knicks” on and then the perspiration rolls off us’.

Clifford’s next letter to his brother, dated 13 October at Suva, did not mention the passage to the Philippines, nor the possibility of meeting the German fleet, but reported that Sydney was bound for Anguar, a small German island possession (now part of Palau), ‘to attack a wireless station’. Sydney travelled 3000nm in 10 days with nothing happening of interest beyond the disposal of the wireless station. After coaling again at Rabaul, Sydney left for Suva, Fiji, on 3 October.

Clifford’s letters are surprising in their detail in the face of the government censorship. His reporting of ships’ movements would surely have been contrary to censorship regulations and his position as a telegraphist in Sydney would have given him first hand exposure to movement signals. The censor officer in Sydney may well have slipped up in his duties and presumably the Bendigo Advertiser got away with publishing Clifford’s letters.

Free of censorship immediately postwar was Seaman Clifford Tivy’s experiences as a crewman of HMAS Melbourne which was published in The Dubbo Liberal and Macquarie Advocate on 10 June 1919. Drawing on diary entries of his four years of service in the ship, he began with his enlistment in the RAN in August 1914 and his joining Melbourne on 1 October of that year. A month later, Melbourne sailed from Albany with the first ANZAC convoy which saw Sydney’s engagement with the German cruiser Emden. Tivy claimed that ‘our old skipper gave us each a tot of rum that day’ following Emden’s destruction. Of particular interest was Tivy’s description of Melbourne’s participation in the inspection of shipping off the West Indies and US ports as a unit of the RN North America and West Indies Station which was responsible for patrolling the western Atlantic from Canada to Brazil. Melbourne was ordered to detach from the ANZAC convoy at Colombo and proceed to Bermuda to join the North America and West Indies Station, arriving on 24 December. Melbourne patrolled off Havana from March to June 1915 ‘keeping the hun ships from coming out’. Tivy stated that they ‘ran the Crown Prince Ethel and the Princess Ethel Frederick into Chesapeake Bay and stopped outside for 12 days waiting for their internment’. He stated that Melbourne had shadowed the ships from Brazil and that they had ‘a few hundred Britishers aboard, so that stopped us from engaging them in battle. What a pity…we would like to have had a slap at them’.
Tivy may either have been mistaken in his narratives, or had embellished them for the benefit of his readers, as the ships were *Kronprinz Wilhelm* and *Prinz Eitel Friedrich*. According to the US Naval Historical Center, *Prinz Eitel Friedrich* was an 8800 ton passenger vessel which was converted to an auxiliary cruiser in Tsingtao, China, at the outbreak of war and joined Admiral von Spee’s East Asia Squadron as a detached commerce raider. On 10 March 1915 the ship, having operated for seven months and low on supplies with many captured seamen on board, arrived in Newport News, Virginia, where she was interned. The liner *Kronprinz Wilhelm* departed New York on 3 August 1914 and rendezvoused with the German cruiser *Karlsruhe*. *Karlsruhe* passed orders for *Kronprinz Wilhelm* to undertake commerce raiding and fitted the liner with two 88mm guns. While *Kronprinz Wilhelm* was a successful merchant cruiser, eight months at sea reduced the ship’s effectiveness and, threatened by searching Allied cruisers including *Melbourne*, *Kronprinz Wilhelm*’s commander decided to intern in the United States. To avoid capture, he pushed the ship’s worn engines to over 20kts to enter Chesapeake Bay on 10 April.

Tivy and his shipmates’ adventures continued as *Melbourne* proceeded northwards to the ‘blockading of New York and searching all ships leaving for Europe’. The boarding and searching activity had its moments, according to Tivy, as ‘the passengers on board were very good to us, particularly the Americans and the British. They used to give us the latest news, books to read and cigars’. He impishly added: ‘we often had a little spree on some of our searching stunts’. Tivy was a member of a prize crew put on board the Dutch ship *Hamborn* off New York and took her into Halifax. After unsuccessfully searching for *Karlsruhe*, *Melbourne* was detached to join the Grand Fleet on 16 August 1916. *Melbourne*’s opportunities for liberty were very limited; however this was partially rectified when, on arrival at Plymouth, they were given 16 days leave - ‘the first spell we had since the war began. We felt it quite strange on shore and the sudden change of climate cut us up a bit’.

In contrast to Tivy’s postwar diary, *The Barrier Miner* of Broken Hill published a more circumspect account of *Melbourne*’s activities on 3 October 1915. Titled ‘HMAS MELBOURNE; A wonderful cruise’ the article comprised extracts from a letter sent to Miss Rita C Davidson of Mount Gambier from her cousin, an officer in *Melbourne*. At the outset the writer, while acknowledging his promise to ‘write you an account of our movements since we left Australia but am unable to say much through the censorship of all our correspondence’. The writer confirms Tivy’s statement of constant steaming as ‘we are constantly on the ship - only half a day ashore in eight months’. The German commerce raider incident is mentioned, without detail except to indicate that the internment of the ships was largely due to *Melbourne*’s vigilance and tenacity: ‘we had some exciting experiences chasing cruisers in the early part of the war - two by our vigilance were forced to abandon the seas and submit to internment’. The letter expressed disappointment over *Melbourne*’s lack of combat action, compared
to that of Sydney, despite the many times the ship’s company went to action stations. After emphasising the keenness of the crew to acquit themselves in action, he ends the letter with the satisfaction that the German cruiser raiders found it ‘more healthy to be interned than take risks with the Melbourne’. Finally, in listing the locations in which the ship operated while in the western hemisphere, he may have risked the censor’s ire, however this apparently passed.

The tenor of the letters and diaries enhanced the Navy’s reputation as a service which spanned the globe, sweeping the seas of the sinister German raiders. Once the threat disappeared through internment or destruction, the major RAN units joined the Grand Fleet.

Navy Office was tardy in releasing information on naval activities after censorship was lifted, probably indicative of the more relaxed times of news reporting. An example of this was the article in the Adelaide newspaper The Chronicle of 28 January 1922. Headed ‘HMAS MELBOURNE; Her war doings’, the article described Melbourne’s assistance to the crew of the Cuban schooner Helen B Stirling. The paper surmised that ‘it appears that during the hostilities the cruiser had a record of effecting rescues at sea. Owing to the activities of the censor this was not generally known’. Navy Office’s statement revealed that Melbourne’s boat crew secured the vessel which had broken free of its anchorage during a gale. A further example of Melbourne’s seamanship was the salvage of a coastal steamer from grounding in the Canary Islands. This rescue was noted through a 7 April 1916 resolution of the Legislative Council of St Lucia recording the indebtedness and thanks of the colony to the cruiser for her skilful salvage in recognition of which the owners, the Royal Mail Steam Packet Company presented the cruiser with a ship’s bell.

Sydney’s victory over Emden was widely reported in late 1914; however, most of the reports were truncated or buried in associated war reporting included The Ballarat Courier of 14 November 1914 under the title: ‘London, Thursday: THE SYDNEY’S VICTORY; World Wide Interest; Australia complimented’. This six paragraph article reviewed overseas reaction to the action with due deference to the motherland’s press. ‘The British newspapers continue to give prominence to HMAS SYDNEY’s exploit’, which included reference to a speech by the New Zealand prime minister who, using the example of the naval victory, emphasised that the South Pacific seas should remain forever British. The remainder of the article contained laudatory expressions from Indian, French and Italian papers which, it should be noted, clearly identified Sydney as an Australian ship and not a British one and recognised the victory as the first for the Australian navy.

A more fulsome report of the Sydney/Emden action was published by the Warwick Examiner and Times on 14 November 1914. No by-line was given nor which news service provided it. Under the omnibus title of ‘THE WAR’, the article led with ‘How the EMDEN was destroyed (Great Achievement for Australia)’, the remainder containing general war news. Apart from quoting a congratulatory telegram from First Lord of the Admiralty Winston Churchill, the report described ‘exciting scenes’ in London when the loss of the Emden was announced with special editions of newspapers rapidly sold out.
However, the most detailed and reliable report was undoubtedly Captain Glossop’s dispatch, received ‘by the naval authorities dated Colombo November 1915’ and published in the *Western Mail* (and probably most papers) without comment. Interestingly, there was no crediting the naval authorities as a source for the release.

And what of the mighty dreadnought *Australia*? After securing the sea lanes against the German East Asia Squadron, and sinking its supply ship Eleonore Woermann, the battle cruiser’s attachment to the Grand Fleet resulted in a virtual news blackout, relieved only occasionally by human interest stories. *Australia*’s missing the Battle of Jutland (due to docking to repair minor damage sustained in a collision with the battle cruiser *New Zealand*) was somewhat problematically reported in the *Bendigo Advertiser* of 6 June 1916. To quote the paper: ‘the naval authorities in Melbourne are inclined to the opinion that HMAS AUSTRALIA did not participate in the naval action. There has been no news from the Admiralty concerning the vessel and in the absence of any information the authorities take the view that “all’s well with the ship and its crew”’. Had the AUSTRALIA been in action it is presumed that the Admiralty would have notified the Commonwealth authorities of this fact’.

The surprising (to us) apparent lack of Navy Office’s day-to-day interest in the activity of its flagship was even more pronounced when these words were followed by the seemingly only information which came out of the ship at that time. An officer from *Australia* sent a telegram to an undisclosed addressee in Melbourne, the text of which read ‘All’s well’. It was sent from Edinburgh, presumably where the officer was taking leave. This appeared in the *Bendigo Advertiser* on 6 June 1916.

It was left to Seaman Frank Metcalfe of Armidale, a member *Australia* home on leave to divulge ‘some highly interesting information’. The *Warwick Examiner and Times* on 11 July 1917 stated that ‘very little authentic news of the HMAS AUSTRALIA, the flagship of the Australian squadron has been received since she left some 2 years ago to join the Grand Fleet’. The extent of Metcalfe’s information was that ‘the ship is now the flagship of the 2nd Battle Cruiser Squadron and has occupied the whole of the last couple of years in patrol work in the North Sea. She has seen no action’. Metcalfe may have offered more information but the censor probably intervened.

Earlier official comment regarding *Australia* was the concerned tone of the Minister for Defence, Senator Pearce, who was ‘anxious that the widest publicity should be given to his assurance that there is no foundation for the wild rumour that misfortune had overtaken the AUSTRALIA’. Apparently rumours had surfaced that the ship had met some misfortune in the apprehension of Eleonore Woermann, which the minister was at pains to refute through a communiqué issued by the Department of the Navy. The ‘widest publicity’ reached the *Queanbeyan Age and the Queanbeyan Observer* on 26 January 1915.

The reports in many newspapers of *Australia* sinking Eleonore Woermann were practically all of one paragraph. However, *The Albany Advertiser* of 6 February 1915 published portions of a letter from ‘an officer of HMAS AUSTRALIA’ in which he divulged some details of the five hour chase off the Brazilian coast before the German ship surrendered.
After the crew of 99 was taken off, *Eleonore Woermann* was dispatched by two 12-inch and two 4-inch shells.

In contrast to the paucity of substantive wartime reporting on *Australia*, and the rest of the deployed RAN units, was the 636 word article ‘HMAS AUSTRALIA as Flagship’, published in *The Albury Banner and Wodonga Express* on 29 November 1918. This report, from a special correspondent of the Australian Press Association, gave a full description of *Australia*’s role in the surrender of the German High Seas Fleet. An article of this quality was probably widely circulated to Australian papers and doubtless the home front, starved of news for four years on the doings of its navy, welcomed the narrative which lent a dramatic and climactic tone to this momentous event while at the same time highlighting *Australia*’s role, one which had been kept from them since the ship disappeared into the northern mists after the *Eleonore Woermann* incident.

So what conclusions can we draw, 100 years later, on the role of the Australian media in reporting the RAN’s war at sea? Undoubtedly the iron hand of censorship, both onboard RAN ships and by government officials, strictly regulated what was published. There were no dedicated correspondents, embedded or otherwise and very few images. After the initial thrilling ANMEF campaign, the *Sydney/Emden* action and *Australia*’s central Pacific presence to intercept the German East Asia Squadron, the RAN only appeared in brief snippets in the columns of the national newspapers.

However, despite the sparseness of information, the RAN was positively reported in the home papers. The absent RAN ships companies feelings for home may be summed up in the words of an irreverent Australian rating who called out, during the Australian High Commissioner Sir George Reid’s speech at the commissioning of *Australia* on 21 June 1913: ‘Hooray for Wallaby Land!’.

**Endnotes**

3 *Sydney Morning Herald*, 3 July 1913.
It is appropriate at the 2013 King-Hall Naval History Conference to reflect on the origins and contributions of the Royal Australian Naval College in this, its centenary year of foundation.

Such a reflection brings into focus the hitherto unheralded aspect of Vice Admiral William Rooke Creswell’s legacy to our navy and our nation. That is his role in the creation of the Naval College.

This paper is based on the 2013 Creswell Oration I gave to the Navy League earlier this year, which is in turn based on research for my future book *Australia’s Argonauts*. This book will relate the remarkable story of the first class to enter the Naval College. These cadet midshipmen became known as the Pioneer Class. I intend to publish that book in time for the centenary graduation at the Naval College at the end of 2016.

In my paper I have:

- examined key aspects of the creation of our Navy as they impacted on the creation of the Naval College
- analysed the Naval College model, then
- how the Naval College midshipmen performed in both in the Grand Fleet and then in their careers; and then
- assessed the legacy.

Recently I had the opportunity to read the Creswell Papers that are now held by the Sea Power Centre - Australia. What is remarkable, when you read these papers, in conjunction with Creswell’s memoir *Close to the Wind*, is for how long the Admiral advocated the need for an Australian navy. For many years prior to Federation, it seemed he was a lone voice. Creswell later wrote:

> The undertaking I so lightly took in hand when I penned my articles for the Adelaide Register, thinking then only how I might convert unbelievers of the colony of South Australia, I subsequently discovered was Imperial in its dimensions. The small job I thought to accomplish in the twinkling of the eye turned out to be a mighty one, involving great protagonists and affecting the destiny of an Empire. My own small share in its accomplishments took me, as I have already observed, three and twenty years.¹

In the lead up to Federation, Creswell advocated in the press and with politicians the need for an Australian navy to go hand in glove with the new nation. His efforts would
have gone in vain without the dogged support of Prime Minister Alfred Deakin, who held sway against British government opposition to an Australian navy. The British at the time would have preferred that Australia continue to provide funds to their government for naval protection. In 1905 Deakin said,

No Commonwealth patriotism is aroused while we merely supply funds that disappear in the general expenditure of the Admiralty.2

Creswell and Deakin understood that an Australian navy was essential to the young nation’s security and prosperity. As Deakin said in 1906 to the Governor-General, nowhere are maritime communications more important than to Australia.3

But to Creswell and Deakin, the navy had another dimension. It would be a great national institution that would help bind the colonies together and help create an Australian identity. I will not discuss the momentous events that led to the formation of the Australian navy and the conception of the Australian Fleet Unit centred on the battle cruiser HMAS *Australia*. Suffice to say the first Australian Fleet was much grander than even Creswell’s aspirations.

From earliest days, however, both Creswell and Deakin recognised that navies were more than just their ships. In particular they appreciated the need to train significant numbers of men as officers and sailors for the Australian navy. How this was to be achieved coalesced into an increasingly coherent program with supporting public works in the years 1903 to 1912.

With respect to initial entry for sailors, the intent was to expand the modest colonial training facilities. HMAS *Encounter* became a training cruiser which would allow sailors to achieve basic naval and specialist competencies. For the sailors that would man the navy’s new fleet, they would receive further training on specific equipment in the United Kingdom. The manpower was to come from multiple sources, spanning sailors from the old Colonial navies, the merchant marine or fishing industry, fresh recruits and from the Royal Navy itself. The prospect of a new life in Australia and better pay and conditions provided sufficient attraction for a significant number of British sailors to transfer to the fledgling navy. They had experience in operating a blue water navy and their contribution to the safe and efficient operation of the Australian fleet cannot be underestimated. In the longer term, a dedicated training establishment was needed. Admiral Henderson identified a site at Crib Point for a future naval base on Westernport, Victoria. As events unfolded, the training establishment HMAS *Cerberus* was commissioned but the naval base was never constructed.

In 1906 Creswell, as part of a UK visit, called on Professor James Ewing, Director of Naval Education. The meeting was at the behest of the University of Melbourne which wanted the Australian government to fund a School of Naval Science on their campus. This would complement the new School of Military Science at the University of Sydney. The meeting with Ewing was of great value. Ewing was a remarkable figure and a practical educationalist.4 During World War I he would manage the Admiralty’s famous Room 40 which broke the German coded signals.
From this and other meetings Creswell formed the view that while university training for some technical officers was essential, a naval college along the lines of the Royal Naval College at Osborne House was the correct course of action. In 1909 Creswell’s trusted deputy and supporter, Captain Frederick Tickell, wrote a memorandum which distilled the character and size of a naval college for the new navy. It was based on the Royal Navy model and would involve training 13-year-old cadets for four years. Because of the cadet system which was in place in some Australian private schools, the title ‘cadet-midshipman’ would be used in the RAN to avoid confusion. In 1913 CEW Bean wrote of RAN College training system:

> It will be a matter of fascinating interest to watch it develop - like watching an experiment from Plato’s Republic. It is an attempt to obtain the best ability from the people, wherever it lies. The State realises that, for the sake of efficiency, it must catch young those who are to fill its higher posts. ...Is there any reason why that experiment, if it succeeds, should end with the Army and the Navy?

While Creswell and Tickell developed their plans for a Naval College, efforts were well underway to create a sister military college for the Army. On 30 May 1910 Colonel William Bridges, who had been involved in the School of Military Science initiative, was promoted to Brigadier General and appointed as Commandant of the yet to be established military college. The government had decreed that it was to be built on Federal land where the new capital of Canberra would be built. There would be distinct differences in the Army and Navy college models. The new military college would be heavily influenced by the US Military College at West Point as well as the Canadian Royal Military College at Kingston at which Bridges had been a cadet. In contrast to their much younger naval counterparts the Army cadets would be from 17 years old on entry and would initially receive three years training before graduation. This would be extended to four years once the shortfall of officers was addressed.

A question that both Bridges and Creswell had to grapple with was the size of their cadet population. Bridges concluded the Military College would eventually have a population of 150 cadets. For the Navy the planned fleet size became the guide and it was estimated that about 30 cadet-midshipmen would be needed each year. Based on the eventual 120 cadet-midshipmen at the Naval College, Tickell calculated the requirements for facilities as well as naval and academic staff. The naval staff would comprise a captain, three lieutenants, a gunner, a boatswain, a carpenter and an artificer engineer. The academic staff would be five masters and five assistants.

The officer the Royal Navy had loaned to be the inaugural captain of the Naval College was Captain Bertram Chambers. An astute Londoner and navigation specialist, Chambers had himself joined the navy as a 13-year-old cadet-midshipman. He had extensive sea service, most recently as Flag Captain to the Admiral commanding the Home Fleet. From the outset Chambers and Creswell established a strong rapport and they were to become life-long friends.
Consistent with the notion that the Services were important elements of nation building, it was decided by the Australian government that both the proposed Royal Military College and the Royal Australian Naval College should be sited in Federal territories. In the case of the Royal Military College it was at the Australian Capital Territory; in the case of the Naval College it was at the Australian Commonwealth Territory on Jervis Bay where the port for Canberra was hoped to be built. The citizens of Geelong generously offered not only Osborne House as the interim naval college but warmly welcomed the officers, sailors, cadets and their families into their community.

Fortunately for us today, there were other politicians to pick up the baton from Alfred Deakin. Worthy of mention was the first Navy and Defence Minister, Senator George Pearce. He and Prime Minister Andrew Fisher helped shape the distinctive character of the Naval College. I should elaborate on this aspect, alluded to by Bean.

In the Royal Navy parents were expected to pay for the tuition and uniforms of midshipmen for the duration of their training. This meant of course that officers were drawn from the middle and upper classes of British society. In a new approach consistent with the egalitarian aspirations of the new nation, Fisher insisted there be no impediments to boys from the working class being able to join the new Naval College.

At the opening of the Naval College, the Governor-General Lord Denman said to the 28 new 13-year old cadet-midshipmen assembled before him,

> You cannot all be Admirals. You can all do you best to become efficient officers of the Royal Australian Navy. You are a picked lot of lads from every State of the Commonwealth and some day I hope you will be joined by comrades from New Zealand. You have advantage, which, so far as I know, no other country offers, in receiving this splendid education at the cost of the State.\(^7\)

Chambers fully embraced the egalitarian approach and declared that he would ‘guarantee that after six months at the College it would be impossible to tell that the lad had lacked any social advantage’.\(^8\) The government had also established a quota system to ensure a rough representation of suitably qualified boys from each state on the basis of their population.

The egalitarian desire was broadly met. Twenty eight boys were selected, of which only a quarter of the initial intake came with a private school education. Of the occupations of the parents, there was one millionaire, but the remainder was teachers, farmers, doctors, shopkeepers, policemen, an architect and a diamond cutter. One boy was an orphan of humble circumstance.

Having championed the need for a Naval College in Australia, Creswell continued to play an important role in its early development. In particular he involved himself in the selection of the civilian Director of Studies and in the curriculum.

The other key figure in establishing the training regime and culture of the Naval College was Lieutenant Commander Duncan Grant. He was personally selected by Chambers
and would rise to the rank of captain and command the Naval College for two periods. Grant was a specialist in physical training who had served on the staff at the Royal Naval colleges. Grant was a keen photographer and I have had the opportunity to view his fascinating collection of photographs. It is at times hard to tell which photographs are taken at the Royal Naval colleges and which are taken at Geelong and Jervis Bay.

As to be expected, the curriculum, daily routines and accommodation arrangements for the Naval College were modelled closely on the Royal Navy. In later years Eric Feldt of the Pioneer Class reflected that:

The scheme of training was exactly the same as that used at Osborne in the Isle of Wight, where the British cadets were trained. The object was to produce a naval officer who was interchangeable and, in fact, so far as possible, indistinguishable from the RN officer. That was all right. That was the only way they knew how to produce a naval officer when it comes to that.\(^9\)

It is important to note that there were discernible differences between the RN and RAN colleges, besides the egalitarian approach to selection. In the Naval College there was a greater emphasis on sport and a more humane approach to discipline.

Team sport figured greatly in the life of the cadets. In addition, athletics and the ‘Swedish’ system of physical training were adopted from the Royal Navy model. A Naval College brochure which extolled the Swedish system said it,

is conducted not with the idea of ‘putting on muscle’ but the building up of a healthy and vigorous constitution. Particular attention is paid to the development of the chest, and thus of the heart and lungs, as health and therefore physical efficiency are largely dependent on the healthy action of these organs.\(^10\)

Naval discipline was ever-present, even on the sporting field, and on one occasion one of the boys refused to swap football jerseys with another on the order of the sports officer. The boy ‘was marched off the playing field by a file of the guard, two six-foot sailors in gaiters and side arms’. John Collins wrote he,

wondered aloud whether he would be hanged that night or in the morning. ‘They always hang them at dawn’ whispered the cadet next to me. Rather to our surprise he was not hanged. If I recall correctly he was awarded the most serious punishment other than dismissal, namely, a canning strapped over a box horse before the assembled cadets and ship’s company. Grave offences were usually dealt with in this manner which had much to recommend it, so long as you were not the victim. Even for him it was soon over, and better in many ways than a long drawn-out period of extra drills.\(^11\)

A Naval College officer recalled ‘I have never met a man who remembered a cadet to whimper. Gasps and grunts were proper: but no blubbering’.\(^12\)

The Naval College discipline was not however the brutal style practiced at the Royal Navy colleges of the time. I believe we have Chambers and Grant to thank for this. In particular,
Chambers’ approach was in part due to his own experiences in 1881 at Britannia Naval College where he was beaten so often that he and some fellow midshipmen regularly hid in an old boat shed.\textsuperscript{13} Chambers also had great empathy for the less naturally gifted cadet-midshipmen and a willingness to go to extra efforts to ensure their eventual success. Chambers would eventually rise to the rank of Vice Admiral and in introducing his memoirs, he wrote

\begin{quote}
My apology for putting this story of my life on paper is the desire to show that a person of average ability, and in a profession for which by constitution and mentality he has by no means well fitted, may still score a modified success provided he tries his best.\textsuperscript{14}
\end{quote}

The Naval College experience for the cadet-midshipmen was intense. The typical summer day for the cadets began with reveille at 0700 followed by breakfast and a short parade before studies commenced at 0900. Studies would continue after lunch until 1630 when there would be sport until 1800. After dinner, the cadets’ accommodation would be inspected and from 1930-2030 there would be homework followed by cocoa and biscuits with lights out at 2115. On Wednesday and Saturday afternoon sport would commence at 1415 while Sunday there would be an hour of divinity studies followed by divine service. Sunday afternoon was set aside for recreation. Feldt later said

\begin{quote}
Well, it left no time for idle dreaming. It took every part of the day and took up all you can do. All the energy you had went into your living the ordinary life and carrying out the instructions that were given. It was, we realise since, a form of indoctrination.\textsuperscript{15}
\end{quote}

This regime continued when the Naval College moved to its purpose built facility at Jervis Bay. It well prepared the boys for the rigours of sea life.

On 12 December 1916 the Pioneer Class graduated from the still new Naval College at Jervis Bay. During their time at Jervis Bay they had the distinction of leading the Naval College rugby team that beat the older Duntroon team in their inaugural encounter. At their graduation, Admiral Creswell was in attendance. He made the journey from Nowra to Jervis Bay with a correspondent from the Sydney Morning Herald and gave an interview with the reporter en route. He reflected on the Navy and this momentous occasion to the reporter,

\begin{quote}
The life of the Navy is a life apart. It may be likened to one of the great monastic orders. The political life of the day sees changes. The work of the Navy goes on regardless, to a large extent, of the political issues. The life of the Navy, during the past ten years, does not seem to have been realised by the public. The old idea of a comparatively idle life on foreign stations has disappeared. The past decade has been one of strenuous endeavour, of practical work in the North Sea, and of the maintenance of that efficiency which has served the Empire in such good stead during the past two years.\textsuperscript{16}
\end{quote}
For the correspondent it was his first visit to the Naval College and he reported,

As we cross the heights leading down to Captain’s Point, with the College buildings visible four miles away, the idea of a life apart appealed to me. Here, indeed, was a miniature monastic order nestling by the waterfront in a pear-shaped bay, with clean white sand marking the foreshore. It seemed a sylvan retreat, this spot where the personnel for Australia’s Navy were being trained. Outside the Heads the sea was running. The wind was a little treacherous. There was even a tendency to squalls. This sea brought the sylvan retreat into relationship with the stern business with which it is concerned. The call of the sea was there. The spirit of the Navy was there.\(^{17}\)

In many respects that graduation, in the presence of Governor-General Sir Munro Ferguson, marked the final legacy of William Creswell. During the proceedings the *Herald* correspondent noted Creswell’s reflective and proud countenance. By that stage he had been the architect and had overseen all the elements required of a new navy. Importantly the Navy had demonstrated their mettle in battle and made a meaningful contribution to World War I. At the ceremony the Governor-General announced,

I am sending the following cable to the King: Sir Ronald Ferguson, with humble duty, begs to inform your Majesty that he has to-day said good-bye to the first contingent of Cadets who have passed out of Jervis Bay Naval College as Midshipman to be posted to your Majesty’s Fleet. Sir Ronald is confident that they are fitted by training and character to worthily maintain the traditions of your Majesty’s sea service.\(^{18}\)

In his obituary of Admiral Creswell in the British *Naval Review*, the first captain of the Naval College, Bertram Chambers, wrote of Creswell’s achievements,

It is perhaps not amiss to add here that Sir George Pearce, the Minister of Defence during the first and most anxious years of the scheme, was a man of both ability and tact, a fact which greatly helped to get measures accepted which were by no means always palatable to certain other members of the Labour Government. It seems incredible, when one remembers the procrastinations and delays inseparable from such work, that in the three years before the outbreak of the war so much should have been accomplished. Sir William Creswell, as the first member of the Naval Board, can claim credit for: The completion of the first fleet unit: main details of naval administration settled: Brisbane well on in construction at the Cockatoo Island, which had been taken over by the Commonwealth: Naval College and boys’ training ship Tingira actually in operation: work started at Western Port: depots and wireless stations in being - to say nothing of a large number of seamen under training. It was a state of things which few would have ventured to anticipate as a possibility.\(^{19}\)
In reviewing the effectiveness of the Naval College, it is important to assess how the Pioneer Class and their successors performed in the Grand Fleet and beyond. The Pioneer Class was spread into four ships: HMAS *Australia* and HM Ships *Canada*, *Glorious* and *Royal Sovereign*. In *Glorious*, the Australian midshipmen’s experience was typical. They found the Gunroom run by two sub-lieutenants with a total of twenty midshipmen (or snotties as they were called) onboard. Edwin Nurse wrote

> It was a strange life we had entered. I didn’t like it much. The sub-lieutenants and senior snotties made the junior ‘snots’ fag for them and beat them if necessary. A survival of the public school I suppose. We five were of course junior snotties. But we were so big and strong compared to them that they didn’t order us about with much assurance. We did minor fagging duties for a while until for some trifling thing they decided to beat ‘Bagger’ (Ernest Cunningham). He was the smallest of us. Getting organized the revolt. We marched in en bloc, told them we refused any further fagging and demanded the release of ‘Bagger’. Though they outnumbered us four to one, they didn’t do anything more than argue. We won on points, and they made us senior snotties forthwith.\(^\text{20}\)

Besides their physical size, the fact that they were selected from a broader pool of society caused comment within the Royal Navy. Captain Henry Mawbey wrote,

> The success generally speaking of the scheme of education and training at the R.A.N. College is, I think, accentuated, when the fact is taken into consideration that the selection of candidates is made on a far wider basis that is the case in the Imperial service, although the actual conditions of entry are similar. In manners, general conduct and appearance there is no noticeable difference between any of the RAN Midshipmen, and of these characteristics I can speak highly. The system of practically open competition which obtains, I understand in Australia, seems to me to have thoroughly justified itself, and the competition being extremely severe (about 17 to 1) the boys entered should be the pick of the community. The advantages of such a system, i.e. of selection from the very first on a wide basis, are here exemplified, as opposed to a system which attempts to select boys from training ships and the lower deck, which, so far as my information and experience go, has proved an utter failure.\(^\text{21}\)

Further vindication of the system advocated by Creswell and others previously mentioned was attained in the service of the Pioneer Class in the interwar period and World War II.

Finally, I would reflect on the 28 13-year old boys who joined at Geelong in 1913. The Pioneer Class were the first and the greatest class to enter the Royal Australian Naval College. Their contribution to the Navy and Australia was remarkable. In war time from young midshipmen such as Eddy Nurse in charge of a gun in *Glorious* during the Battle of Heligoland Bight, Ernest Cunningham tragically losing his life in the submarine *K17*, and Chief Cadet Captain Frank Larkins being lost off *J2*, to later years where John Collins, Harold Farncomb, Harry Showers, James Esdaile, Joe Burnett and Frank Getting commanded cruisers in World War II. Fittingly by war’s end Commodore John Collins
commanded the Australian Squadron and was onboard USS Missouri for the Japanese surrender. Less appreciated was the notable contribution members of the class made to our broader society. A number such as John Howells became highly respected teachers or in the case of King’s Medallist Winn Reilly successful businessmen.

It was therefore in the final analysis the graduates of the Naval College, like the Pioneer Class that demonstrated the leadership, courage and sacrifice that cemented Admiral Creswell’s final legacy.

Endnotes
3 Letter, Deakin to Governor General, 28 August 1906, Commonwealth Parliamentary Papers, 1906, No. 98.
8 FB Eldridge, A History of the Royal Australian Naval College: From its inception in 1913 to the end of World War II, Georgian House, Melbourne, 1949, p. 35.
10 Handbook of the Royal Australian Naval College, Government Printer, Sydney, 1918, p. 22.
15 Feldt, Reminiscences of Commander Eric Feldt, p. 5.
19 BM Chambers, Naval Review, Spring 1933, p. 554.
20 Diary of Captain ES Nurse, RAN, Entry for 8 April 1917.
21 NAA, Report ‘Midshipman R.A.N.’ Rear Admiral Commanding H.M. Australian Fleet by Captain ML Mawbey, RN (HMS Agincourt), 14 September 1918.