

“THE CAVALRY OF THE FLEET:” ORGANIZATION, DOCTRINE, AND
BATTLECRUISERS IN THE UNITED STATES AND THE UNITED KINGDOM, 1904-22

Ryan Alexander Peeks

A dissertation submitted to the faculty at the University of North Carolina at Chapel Hill in
partial fulfillment of the requirements for the degree of Doctor of Philosophy in the
Department of History.

Chapel Hill
2015

Approved by:

Wayne Lee

Dirk Bönker

Joseph Glatthaar

Richard Kohn

Andrew Lambert

Sarandis Papadopoulos

Susan Pennybacker

© 2015
Ryan Alexander Peeks
ALL RIGHTS RESERVED

ABSTRACT

Ryan Alexander Peeks: "The Cavalry of the Fleet:" Organization, Doctrine, and Battlecruisers in the United States and the United Kingdom, 1904-22
(Under the Direction of Wayne Lee)

This dissertation examines naval policymaking in the United States and Britain in the era of the First World War, from the elevation of Admiral John Fisher to the position of First Sea Lord in 1904 to the end of the Washington Conference in 1922. Specifically, it analyzes how each country's navy developed policy and doctrine, and the ways in which institutional culture, strategic priorities, and administrative structure shaped these processes. The project explores these issues through both navies' experience with battlecruisers, a then-new type of large warship with heavy guns, high speed, and light armor. While doing so, the project also sheds light on the comparatively neglected American battlecruiser program, showing how crucial the ships were to American conceptions of future naval wars.

Battlecruisers provide an ideal background for comparing British and American naval policy. The Royal Navy introduced the type, beginning construction on the first *Invincible*-class battlecruisers in 1905. On the other hand, the United States was the last major naval power to accept battlecruisers, and only started building them in 1916. These disparate stories allow us to see how each navy identified strategic priorities, allocated resources, developed doctrine, designed warships, and changed doctrine and design in response to technological developments and wartime experience.

As the dissertation shows, the United States and the United Kingdom took very different approaches towards managing and maintaining sea power. Some of this was due to each country's national culture and strategic situation, but the institutional culture and administrative structure of each service played a role as well. In Britain, the need to defend a far-flung empire was filtered through the Admiralty, which could be dominated by the theories and passions of a single man. Across the Atlantic, the U.S. Navy's Mahanian worldview was constantly modified by the service's "strategic elite" in the Naval War College and on the General Board. These differences were reflected in each country's battlecruiser program: by the early 1920s, the Royal Navy built theirs for fighting battleships in major fleet actions, while the American battlecruisers were intended for scouting and long-range independent operations.

TABLE OF CONTENTS

INTRODUCTION: THE BATTLECRUISER AGE.....	1
CHAPTER 1: TRAINING, ADMINISTRATION, AND NAVAL STRATEGIC CULTURE IN THE U.S. AND BRITAIN IN THE WORLD WAR I ERA	16
CHAPTER 2: “ARMED SPEED”	44
CHAPTER 3: DEFINITION AND DEBATE	99
CHAPTER 4: IN SEARCH OF A MISSION.....	163
CHAPTER 5: “NO ONE REALLY KNOWS THEIR FULL VALUE”	205
CHAPTER 6: “LIKE THE CAVALRY OF A GREAT ARMY”	246
CHAPTER 7: “PUT AGAINST BATTLESHIPS, THEY MUST EXPECT TO SUFFER”	292
CHAPTER 8: FAST BATTLESHIPS	338
CHAPTER 9: DROWNED IN INK	396
CONCLUSION: THE GHOST SQUADRONS OF WASHINGTON.....	431
APPENDIX A: THE BIRTH OF THE BATTLECRUISER.....	447
APPENDIX B: FROM THE 2ND GENERATION TO WASHINGTON	448
BIBLIOGRAPHY.....	449

INTRODUCTION: THE BATTLECRUISER AGE

More than any other class of warship, battlecruisers can be said to have a father.¹ Their particular mixture of high speed, heavy firepower, and light armor was the vision of British Admiral John “Jacky” Fisher who, in 1904, presented the First Lord of the Admiralty with a scheme of naval reform, including specifications for a new type of cruiser, “HMS Unapproachable,” designed to exploit “the first desideratum” of naval combat, “speed.”² By 1905, this sketch was the basis of the first battlecruiser, HMS *Invincible*, faster than extant battleships, with a uniform battery of heavy guns, and rather thin armor. Between the years 1904 and 1922, the United Kingdom, Germany, and Japan combined to build twenty-seven of the new ships. Additionally, six American *Lexington*-class battlecruisers, as well as three British and four Japanese battlecruisers were cancelled in 1922 under the terms of the Washington Naval Treaty.³

At the same time as *Invincible*, Fisher’s Royal Navy was engaged in designing and building *Dreadnought*, a new-style battleship that lent its name to subsequent battleship

¹ Historians are split on whether to call the ships “battlecruisers” or “battle cruisers.” Although the latter term was in common use at the time, the former aligns with the shift in usage from “battle ship” to “battle-ship” to today’s “battleship,” and will be used throughout except when quoting documents or using titles from the period.

² Admiral John Fisher, “The Fighting Characteristics of Vessels of War,” in *Naval Necessities*, Volume I, May 1904, ADM 116/942, The National Archives, Kew, UK, 3

³ The terminology of the period was rather fluid, as one would expect from a new ship. While I reserve the term “battlecruiser” for ships built to the rough pattern of *Invincible* and its successors, this project examines fast capital ships like the British *Queen Elizabeth*-class battleships and the unbuilt American “torpedo battleship” as well.

construction. Dreadnoughts spread to many more countries than battlecruisers and, even where battlecruisers were being built, they far outnumbered their faster cousins. Dreadnought battleships, however, were simply a refinement of the centuries-old battleship type, and warships on the basic dreadnought pattern were still being built through the end of the Second World War. On the other hand, the vast majority of battlecruiser construction was concentrated into the 1904-22 period, and historians continue to debate whether or not post-1922 ships like *Graf Spee*, *Strasbourg*, or *Alaska* can really be counted as battlecruisers. With that in mind, it seems fair to mark this period as the “Battlecruiser Age.”

Although not as numerous as dreadnought battleships, battlecruisers were at the heart of the naval arms race that did so much to lay the foundation for the Great War. Indeed, Fisher, the man most responsible for *Dreadnought*, viewed battleships as an anachronism, “strategically unnecessary but also tactically vulnerable and . . . ineffective.”⁴ His view of naval warfare was centered on the battlecruiser. Instead of a naval strategy based around fleets of battleships, Fisher foresaw a future of fast battlecruisers supported by a variety of lighter ships and submarines. Although this vision never came to pass as such, it was present in many of Fisher’s policies between 1904 and 1910.

The most radical of Fisher’s views remained unknown to the other three battlecruiser powers: Germany and Japan, who completed battlecruisers, and the United States, which had six under construction before the Washington Conference. Yet, it would be a mistake to claim that battlecruisers were “just another ship” in those navies. Battlecruisers were new, a

⁴ Jon Tetsuro Sumida, “Fisher’s Naval Revolution,” (*Naval History*, Vol. 10, No. 4 July/August 1996), accessed through ProQuest, p.2 on web version.

ship type without real antecedents.⁵ As such, all four navies were forced to consider how to integrate a new type of warship into their navies, and conceptualizing the period as the “Battlecruiser Age” highlights the differences between the services. Although all four pursued roughly similar policies with their battleship fleets, there were three discernable approaches taken to the battlecruiser issue. Both Germany and Japan eventually saw battlecruisers simply as more-effective armored cruisers and employed them accordingly, primarily as “fast wing” adjuncts to their battle line, a trend anticipated in Japanese cruiser design as early as 1904.⁶

On the other hand, the American and British navies tried to create new missions that leveraged the capabilities provided by fast ships with battleship-class weapons. Although the U.S. Navy was the last power to start building battlecruisers, by 1912 it had developed a novel battlecruiser doctrine around the missions of scouting, screening, and “distantial” operations, a role substantially different from their use of armored cruisers. The British Navy, of course, introduced the type, and in Admiral Fisher’s original conception, the ships were to be the centerpiece of a dramatic rethink of naval warfare. Even once it became clear that Fisher’s revolution was an incomplete one, British naval opinion never fully solidified on a particular use for the ships.

⁵ If one chooses to view battlecruisers as a refinement of the armored cruiser type, the point still stands. The first recognizable armored cruiser (as opposed to earlier protected or belted cruisers) was the French *Dupuy de Lôme* (laid down 1888, launched 1890, commissioned 1895), and in the decade that separates its commissioning from the start of this project, the form and mission of armored cruisers were the subject of lively debate in naval circles the world over. William Hovgaard, *Modern History of Warships* (London: Conway, 1978, reprint of 1920 ed.), 206.

⁶ Dirk Bönker, *Militarism in a Global Age: Naval Ambitions in Germany and the United States before World War I* (Ithaca, NY: Cornell University Press, 2012), 113-4. David C. Evans and Mark R. Peattie, *Kaigun: Strategy, Tactics, and Technology in the Imperial Japanese Navy, 1887-1941* (Annapolis: Naval Institute Press, 1997); 64, 160-3.

By focusing on battlecruisers and related policy developments in these two nations, across the whole period from 1904 to 1922, we can achieve new insights into the cultural structures and organizational policies that affect military institutions as much as potential enemies and the balance of power. Although the American battlecruisers have been discussed briefly in other works, this project is the first large-scale consideration of battlecruisers in the U.S. Navy. Unlike most interpretations, I found that the American battlecruiser program was not a reaction to outside developments, like the German case, a refinement of prior ideas, like the Japanese *Kongos*, or a response to wartime experience. Instead, the American battlecruisers were designed from the keel up to match the U.S. Navy's very particular vision of their place in American strategy.

In comparison, the British battlecruiser program has received quite a bit more attention from scholars of the Royal Navy. In the past twenty-five years, historians have begun to accept that battlecruisers really were at the center of Fisher's "revolution." The standard history had been Arthur J. Marder's *From the Dreadnought to Scapa Flow*, which, though an impressive feat of research, was marred by the author's insistence on viewing naval strategy through a Mahanian lens and a subsequent focus on fleets of battleships as the absolute naval policy of the age.⁷ This has been modified and superseded by subsequent work, especially the writings of Jon Tetsuro Sumida and Nicholas Lambert, from which the description of Fisher's views at the start of the chapter was adopted.⁸ This interpretation, and

⁷ Arthur J. Marder, *From the Dreadnought to Scapa Flow*, (Oxford: Oxford University Press, 1961-70), 5 vols.

⁸ The key works by the two men are Sumida's *In Defence of Naval Supremacy* (Boston: Unwin Hyman, 1989) and Lambert's *Sir John Fisher's Naval Revolution* (Columbia: University of South Carolina Press, 1999). Additionally, Lambert's article "Strategic Command and Control for Maneuver Warfare" (*Journal of Military History*, Vol. 69, No. 2, April 2005) adds a critical discussion of British strategic communication in the WWI period, and Sumida's article "Sir John Fisher and the *Dreadnought*" (*JMH*, Vol. 59, No. 4, Oct. 1995), which expands his argument concerning Fisher's feelings on battlecruisers and battleships. The importance of their arguments is such that much of the older literature on the period is comparatively useless; without the essential

the authors responsible for it—Christopher Bell conspiratorially writes of the “Revisionists”—have come under fire in recent years, but the Sumida-Lambert approach to British sea power in the World War I period remains the standard for the time being.⁹

Likewise, the benefits of a transnational approach for turn-of-the-century military institutions are obvious, and well represented in the literature. Beyond its general advantages, the specific cases of the United States and Britain make for an interesting contrast, especially where battlecruisers are concerned. This particular pairing has most recently been examined, to excellent effect, in Katherine Epstein’s *Torpedo*.¹⁰ Apart from her work, other scholars have looked at the two navies, but usually in the context of the First World War itself or the interwar period.¹¹

insight that Fisher’s favored ship was the battlecruiser, most arguments are based on faulty premises. Since the superseding of Marder’s arguments, however, there has been an explosion of excellent writing on the prewar Royal Navy. Outside of this duo Andrew Gordon’s *The Rules of the Game: Jutland and British Naval Command* (London: John Murray, 1996) and Robert Massie’s *Dreadnought: Britain, Germany, and the Coming of the Great War* (New York: Random House, 1991), are both the product of superlative research and writing, though the latter has some weakness on issues of pure naval strategy. In the new century, a number of important works have been published, including Roger Parkinson’s *The Late Victorian Navy* (Woodbridge, UK: Boydell, 2008), Shawn Grimes’s *Strategy and War Planning in the British Navy, 1887-1918* (Woodbridge, UK: Boydell & Brewer, 2012), and C.I. Hamilton’s *The Making of the Modern Admiralty* (Cambridge, UK: Cambridge University Press, 2011). Finally, Lambert has written *Planning Armageddon: British Economic Warfare and the First World War* (Cambridge: Harvard University Press, 2012), which recasts prewar British planning by focusing on Royal Navy plans to smother the German economy soon after the outbreak of war.

⁹ The most trenchant critique of Lambert’s conclusions can be found in Bell’s “Sir John Fisher’s Naval Revolution Reconsidered” (*War in History*, Vol. 18, No. 3, July 2011), which led to a rather intemperate exchange of essays between the two writers.

¹⁰ Katherine Epstein, *Torpedo: Inventing the Military-Industrial Complex in the United States and Great Britain* (Cambridge, MA: Harvard University Press, 2014). While Epstein’s book also looks at decision-making in both navies, her focus is on the linkages between naval policy, technology development, and the growth of the military-industrial complex and, as such, only tangentially concerns the foci of this work.

¹¹ The two classics here are David Trask’s *Captains & Cabinets: Anglo-American Naval Relations, 1917-1918* (Columbia: University of Missouri Press, 1972) and Stephen Roskill’s *Naval Policy between the Wars* (New York: Walker, 1968-76, two vols.). More recently, Phillips Payson O’Brien’s *British and American Naval Power: Politics and Policy, 1900-1936* (Westport, CT: Praeger, 1998) pursued a similar goal, though with less purely naval analysis than the other two books.

Extending this comparison to the entire 1904-22 period confers a number of advantages. Most obviously, the 1922 Washington Naval Treaty confirmed the U.S. and U.K. navies as the most powerful navies in the post-World War I world. Although this was very much not the case in 1904, the U.S. Navy was the only other service with the desire and capacity for comparable global ambitions. With the signing of the Entente, France tacitly acknowledged the reality of British naval power. Likewise, Japanese leaders conceded that their country lacked the resources to be a *global* power. Germany presents something of an ambiguous case, but the focus of German construction, strategy, and deployment remained the North Sea and the Baltic.

On the other hand, the U.S. Navy thought on a worldwide scale, even when considering defensive war. With newly acquired territory from the Spanish-American War, and a muscular interpretation of the Monroe Doctrine, the U.S. Navy was committed to “defending” a vast space stretching north to Point Barrow, south to Cape Horn, west to the Philippines, and east to Maine. These commitments forced American planners to consider operations on a global scale, even before the U.S. Navy was a global power. Of course, the officer corps of the U.S. Navy viewed the increase of American power as a given and assumed that the American fleet would eventually grow to match those commitments. As a result, much of the naval debate in the United States dealt with the large fleet the U.S. Navy wanted instead of the rather more modest fleet the U.S.N. possessed through the end of the First World War.

More importantly, the U.S.N. never considered a “strategy of the weak” to offset its modest resources before the First World War. Between 1904 and 1922, there was no American echo of the French flirtation with a cruiser-based *guerre de course* strategy of

commerce warfare, nor did the Americans seriously attempt to leverage new technologies like the torpedo as the basis for refashioning fleet tactics or strategy. Indeed, the Royal Navy went much further in that direction than their American counterparts.¹² Instead, American naval strategy was always based on the traditional model of naval power exercised by fleets of battleships, using the gun as their primary weapon.

In addition, ideas flowed freely between the two navies. Despite the lack of a formal relationship between the services before 1917, American and British officers were well aware of developments in each other's countries. Of course, Alfred Thayer Mahan's work was widely consumed on both sides of the Atlantic (although his influence inside the Royal Navy has been greatly overstated by previous generations of historians), but the connections went deeper.¹³ Over the period covered here, American and British officers corresponded, read each other's professional journals (with the exception of the members-only *Naval Review* in Britain), and used the other country's debates and policies to justify their own actions.¹⁴

This comparative and transnational approach also provides a new perspective on the often-stale history of the Royal Navy, which dominates the naval history of the period. The transnational work that exists usually positions the British Navy against its World War I

¹² *Sir John Fisher's Naval Revolution* explains how the potential of torpedo warfare led to Fisher's ideal policy of building swift battlecruisers and torpedo-armed "flotilla" vessels like destroyers, light cruisers, and submarines. Although many American officers were fascinated with the potential of torpedoes, as Epstein's *Torpedo* documents, no one in a position of power or influence in the U.S. ever suggested anything nearly as radical.

¹³ The classic example of this overstatement is Marder's *From the Dreadnought to Scapa Flow*, which is based on an ahistorically Mahanian approach to British naval policy.

¹⁴ For example, the Fisher Admiralty used a debate between two American officers—Mahan and his younger critic William S. Sims—to bolster the case for dreadnought-style warships in documents circulated to journalists and Whitehall policymakers. "Designs of Armoured Ships to be Laid Down in November 1907," Admiralty publication, early 1907, RIC/4/2/3, Caird Library, National Maritime Museum, Greenwich, U.K., 4.

opponent the *Kaiserliche Marine*. Looking at 1904-22 as a whole, however, reveals the real threat to the Royal Navy to have been the United States Navy. Despite the overheated political rhetoric of the day, Germany never seriously threatened to usurp Britain's position as the top naval power; Britain simply had the capacity and the political will to build more ships more quickly than Wilhelmine Germany. On the other hand, the United States had the capability, money, and, for a time after 1916, appeared to have the political support to mount a challenge to the Royal Navy that the British state would struggle to match. Viewed from that angle, the Washington Treaty was a godsend for the British, confirming the obvious rise of American naval power, but preserving British equality without a lengthy and expensive arms race.¹⁵

Nevertheless, the two navies reached Washington through substantially different processes. Not only did the two nations face different political and strategic contexts, but the two services also thought about war in very different ways, bolstered by their wildly divergent organizational and institutional cultures and systems. With that in mind, this project focuses on the process of policymaking in both countries: the "how," rather than the "what" or "why" of policy.

This relative emphasis on process over outcome is an artifact of the period under consideration. Between the end of the Russo-Japanese War and the beginning of the First World War, there were no naval actions on the scale expected of the next major war. In their absence, the development of naval vessels and strategies proceeded according to a set of untested (and untestable) assumptions about the future of naval warfare and the shape of the

¹⁵ See, for example John Ferris's *Men Money and Diplomacy* (Ithaca, NY: Cornell University Press, 1989).

next war.¹⁶ As is well known, all sides failed to anticipate the naval element of the First World War, which was dominated by operational stalemate in the North Sea, and submarine commerce warfare. Even after the war both the American and British navies approached its legacy in ways that tended to downplay the importance of wartime trade protection in favor of endless debates over the legacy of Jutland, the one fleet action of the conflict.

To some extent, the content of British and American policies, though important, lose some of their salience here. Instead, I attempt to explain the effects of the structural and cultural forces acting on policymaking in both countries. Despite the rough similarity of the two navies, both based on fleets of battleships, outward congruence masked a world of difference in the way they approached their higher-level work. More than financial concerns, or the “objective” needs of military strategy, these structural and cultural forces explain much of the divergence in American and British battlecruiser policy. Specifically, these forces go some distance to explaining why the United States had a battlecruiser *doctrine* before the Great War, and the British, despite their decade-long head start with the ships, did not. When Fisher’s initial vision was rejected by his subordinates afloat and successors at the Admiralty, nothing took its place and, indeed, the Royal Navy was structurally incapable of developing a replacement doctrine. Battlecruisers remained a valued part of the British fleet, and service aboard them was coveted, but confusion over their role remained, and contributed to the loss of three British battlecruisers at Jutland.¹⁷

¹⁶ This argument owes a great debt to Tami Davis Biddle’s *Rhetoric and Reality in Air Warfare* (Princeton: Princeton University Press, 2002), especially her sections on the interwar period.

¹⁷ See for example, the memoirs of Admiral Ernle Chatfield, the captain of the battlecruiser *Lion* during the First World War, who wrote that sailors aboard British battlecruisers viewed themselves as “the spear-point of the . . . Fleet, like the cavalry of a great army.” Alfred Ernle Montacute Chatfield, *The Navy and Defence: The Autobiography of Admiral of the Fleet, Lord Chatfield* (London: Heinemann, 1942), 139.

This, of course, holds true for all aspects of British naval policy, especially on the operational and tactical levels. The Royal Navy was equally incapable of formulating and disseminating a doctrine for, say, its battleships.¹⁸ However, a set of accepted practices had grown up around the use of battleships, which had a lineage stretching back hundreds of years. In the absence of an explicit battleship policy, all officers had an innate sense that battleships should be concentrated in fleets, battleship tactics should be roughly linear, and so on. With battlecruisers, there were no such markers. For this entirely new type, officers had no institutional memory to draw on when figuring out how to use them.¹⁹ Once the ships began moving into the fleet, the result was an utter cacophony of ideas. By the eve of the war in mid-1914, the nine active-duty British battlecruisers were given over to three entirely different missions.

The American example throws these issues into sharp relief. This is not to say that the United States Navy was perfect in the early twentieth century. It suffered from myriad faults, some imposed by a parsimonious Congress and executive, but mostly self-inflicted by a blinkered officer corps in thrall to the cult of navalism. Still, in the years before the First World War, the American officer corps discussed and debated battlecruisers and by 1912 the General Board and War College had arrived at a firm policy regarding their design and employment.

¹⁸ In "A Matter of Timing: The Royal Navy and the Tactics of Decisive Battle, 1912-1916," *Journal of Military History*, Vol. 67, No. 1 (January 2003), Sumida suggests that the British did so. While this claim is discussed at greater length in chapter 5, the "technical-tactical synthesis" arrived at by John Jellicoe was so closely held that no scholar found evidence for it during the intervening 90 years. This suggests that the "synthesis" was not widely disseminated enough to meet the standard definition of doctrine or, indeed, to do much good for the Royal Navy in the First World War.

¹⁹ The best Captain Edmond Slade, the head of the War College, and a Fisher ally, could come up with in 1906 was to compare battlecruisers to the 74-gun ships of the line of the age of sail, a comparison that overlooked issues of speed, armor and, to some extent, firepower. Edmond Slade, "Speed in Battleships," War Course College, Portsmouth, May 31, 1906, RIC/12/5, Caird Library, 5-9.

Making this argument first requires revising prevailing understandings of the U.S. Navy and its experience with battlecruisers. There is no equivalent to *In Defence of Naval Supremacy* or *Sir John Fisher's Naval Revolution* in American historiography, and very little on which to build an examination of the American battlecruiser program in the secondary literature. In the standard textbook histories of the U.S. Navy, Kenneth Hagan's *This People's Navy*, and George Baer's *One Hundred Years of Sea Power*, the six American battlecruisers barely merit a footnote.²⁰ Even works more focused on the WWI period gloss over the shift in American naval policy that the 1916 Navy Bill represented. Although those studies acknowledge that the size of the construction program outlined in the 1916 act represented a watershed in American naval history, the planned construction of battlecruisers receives short shrift.²¹ A relative handful of works attempt to grapple with the American battlecruiser program at length, but these works all have serious shortcomings.²²

²⁰ Kenneth J. Hagan's *This People's Navy: The Making of American Sea Power* (New York: Collier Macmillan, 1991) and George W. Baer's *One Hundred Years of Sea Power: The U.S. Navy, 1890-1990* (Stanford, CA: Stanford University Press, 1994). Baer (p. 100) even goes as far as to call the six American battlecruisers "heavy cruisers," implicitly equating the 40,000+ ton *Lexingtons* with the 10,000-ton heavy cruisers of the 1920s and 30s. Harold and Margaret Sprout's *The Rise of American Naval Power* (Princeton: Princeton University Press, 1944) mentions them in passing, but garbles the story of their development.

²¹ William N. Still's *Crisis at Sea: The United States Navy in European Waters in World War I* (Gainesville: University Press of Florida, 2006) is the standard work on the U.S. Navy in the First World War. As the title suggests, Still's analysis leaves no time for the battlecruisers designed and authorized during the war. The situation is the same, though perhaps with better reason in Jerry W. Jones's *U.S. Battleship Operations in World War I* (Annapolis: Naval Institute Press, 1998). David Trask's *Captains & Cabinets: Anglo-American Naval Relations, 1917-1918* (Columbia: University of Missouri Press, 1972) neglects to mention the ships, a major subject of transatlantic discussion as the U.S. Navy sought to learn lessons from the performance of British battlecruisers at Jutland. The Sprouts' *Toward a New Order of Sea Power* discusses the ships briefly in places, but their focus on high-level political machinations, and their lack of access to critical Navy documents are serious blows. Likewise, the biographies of the three major naval figures of the period, Paolo Coletta's *Admiral Bradley A. Fiske and the American Navy* (Lawrence: Regents Press of Kansas, 1979), Elting E. Morison's *Admiral Sims and the Modern American Navy* (Boston: Houghton Mifflin, 1942), and Mary Klachko's *Admiral William Shepherd Benson, First Chief of Naval Operations* (Annapolis, MD: Naval Institute Press, 1987) are largely silent on the battlecruiser issue.

²² One of the earliest such attempts, Ernest Andrade's "The Battle Cruiser in the United States Navy (*Military Affairs*, Feb. 1980) is a five-page treatment of U.S. battlecruiser policy to the end of the Second World War, and riddled with errors. Donald G. White's "The Misapplication of a Weapons System: The Battle Cruiser as a Warship Type" (*Naval War College Review*, January 1970), comes to some interesting conclusions, but is too

These misconceptions and gaps are not just troubling for reasons of historical accuracy. Crediting the six American battlecruisers solely to fear of Japan, the financial environment of Woodrow Wilson's Preparedness movement, or a reaction to the early years of the First World War obscures the debate surrounding battlecruisers in the U.S. Navy from 1903 through the end of the Washington Conference in 1921-2. The first American discussions of fast capital ships in 1903-4 were made without reference to foreign designs or construction, and over the next two decades, the U.S. Navy spent as much time discussing battlecruisers as it did anything else. Although American officers paid close attention to developments abroad, by 1912, the Navy had settled upon an idiosyncratic battlecruiser doctrine that none of the other three battlecruiser powers embraced.²³

Unlike their British, German, or Japanese counterparts, the American officer corps developed a battlecruiser doctrine that primarily utilized its speed in a strategic, rather than a tactical, context. In that sense, there is some similarity to Admiral Fisher's "pure" vision (which no American officers appear to have been fully aware of), except American naval planners never seriously considered the idea of using battlecruisers as a replacement for

prescriptive, and is hamstrung by a reliance on Marder's Mahanian framework. Norman Friedman's *U.S. Cruisers* and William McBride's *Technological Change and the United States Navy* discuss the design history of the ships and some of the engineering problems inherent in their specifications, but neither book is attuned to changes in the Navy's mentality, strategy, or theory. Their perfunctory analysis along those lines leaves much to be desired, in terms of both extent and quality of analysis. More recently, Trent Hone has written an article, "High Speed Thoroughbreds," on the *Lexingtons* but his analysis is more focused on linking the battlecruisers to the Second World War, and the aircraft carriers they became, rather than discussing them in their proper historical context. Katherine Epstein's recent book, *Torpedo*, is strong on battlecruisers when she mentions them, but they are not central to her analysis, which ends before American entrance into the First World War, and is focused on their secondary weapon.

²³ Before the First World War, the German and Japanese navies intended to use their battlecruisers as a "fast wing" to the battle line. The situation in Britain was, as the following chapters will show, rather more complicated, but no faction in the Royal Navy espoused the doctrine settled on by the U.S. Navy.

fleets of battleships.²⁴ Instead, the American battlecruisers were intended for what the U.S. Navy called “distantial” operations, detached from, but in service of, the American battle fleet. This mission came about by 1912, *before* the construction, or even serious design of, the six American battlecruisers. This uniquely American battlecruiser doctrine belies claims that the *Lexingtons* were only developed after examination of the first year of the Great War.

Of course, to a lesser extent, the same could be said for the Navy’s battleships, submarines, or destroyers, but the uniqueness of the American doctrinal outcome in battlecruisers makes it an ideal case study for examining *how* the U.S. Navy thought in the early twentieth century. The extant literature does a fine job of exploring these issues for the development of aircraft carriers in the interwar years, for example, but that debate came after and, in a sense, flowed from the earlier battlecruiser debate. In truth, it is almost impossible to extricate the later stages of battlecruiser discussion in the United States from the early stages of carrier development and ferment, a fact that the present literature tends to ignore.²⁵ The battlecruiser doctrine discussed above, however, was developed before the First World War, and following that thread through the prewar years highlights some of the virtues and vices of the American decision-making process in that era.

²⁴ There was agitation for the replacement of battleships *and* battlecruisers by fleets of “fast battleships” in 1918-19, but that was a substantially different argument.

²⁵ Charles Melhorn’s *Two-Block Fox* (Annapolis, MD: Naval Institute Press, 1974) remains one of the better treatments of the early years of the U.S. carrier program, but he manages to view them as separable from the simultaneous battlecruiser debate in the years before the Washington Conference. John T. Kuehn’s *Agents of Innovation* (Annapolis: Naval Institute Press, 2008) and Craig C. Felker’s *Testing American Sea Power* (College Station: Texas A&M University Press, 2007) effectively begin their analyses after the Washington Conference, and brush aside the 1916-22 battlecruiser program as a fad. Likewise, although Edward S. Miller’s *War Plan Orange* (Annapolis: Naval Institute Press, 1991) and Thomas and Trent Hone’s *Battle Line* (Annapolis: Naval Institute Press, 2006) take the reader before the Washington Conference, they only really deal with ships that were actually built. As a result, they miss the Navy’s extensive discussions about battlecruiser designs and how they were to be used in a prospective war with Japan.

In fact, the American battlecruiser experience throws light on a period in which the U.S. Navy developed ideas and institutions that reflected the country's new status as a global power. Between 1904 and 1922, the Navy began planning in earnest for war with Japan, revamped the mission of the Naval War College, created the rudiments of a naval staff, and took part in the First World War. Not only did these events have a profound impact on the U.S. Navy, but in these years, the leadership of the Navy also passed from officers who had commanded ships and fleets in the Spanish-American War to a younger generation, who brought with them a very different approach to technological development and naval strategy.²⁶ The creation of a battlecruiser doctrine in the years after 1910 represented a triumph for this younger generation of officers.

These conclusions are based on extensive archival and primary research in the U.S. and Britain over the past three years, leavened with a critical reading of the secondary literature, especially on the British side. The bulk of the archival material comes from the National Archives in the U.S. and the U.K., as well as the U.S. Naval War College, the Library of Congress, and the National Maritime Museum in Greenwich. In both countries, professional service journals have been invaluable, especially *Proceedings of the United States Naval Institute* in America and the Royal United Services Institute's journal as well as the *Naval Review* in Britain. Officers in both countries were prolific writers, and much use has been made of works published by my subjects.

What follows is an attempt to explore the above themes and concepts through close examination of battlecruiser theory, practice, and policy in the U.S. and Britain. While the ships represented a small portion of each country's fleets, they had an outsized effect on

²⁶ Ronald Spector, *Professors of War: The Naval War College and the Development of the Naval Profession* (Newport, RI: Naval War College Press, 1977), 112.

naval budgets and thought. As the foundational ship of the age, battlecruisers are the ideal window onto naval affairs of the World War I period. Asking why both countries built them, why the United States took so long to do so, and why the U.S. and Britain placed their battlecruisers in such different tactical and strategic missions leads one to a set of answers that explains a great deal about how military institutions make decisions.

CHAPTER 1: TRAINING, ADMINISTRATION, AND NAVAL STRATEGIC CULTURE IN THE U.S. AND BRITAIN IN THE WORLD WAR I ERA

Before turning to the narrative portions of this project, a pause is in order to explain terms, and provide some background to each service's situation at the start of the period analyzed. At the same time, the discussion below lays out the primary intellectual, cultural, and structural differences between the U.S. Navy and the Royal Navy. Even more so than the strategic or material factors that separated the two services, these differences in mentality explain their divergent policies in the World War I era.

One of those major differences was each service's approach to doctrine, which the U.S. Navy explicitly pursued from the mid-1910s, and the Royal Navy consciously eschewed. The term is used here with a keen appreciation of its multifaceted meaning, and the history of its use by military policymakers, historians, and social scientists. At its broadest, the political scientist Barry Posen has defined doctrine as "the preferred mode of a group of services, a single service, or a subservice for fighting wars."¹ Posen's definition is a good starting point, but in defining this term, the voices of contemporary officers should not be ignored. "Doctrine," a religious term for most of its history, first began to be used in its modern, military sense, in the period covered by this project. One historiographer has suggested that the modern conception of doctrine is the product of the German and British

¹ Barry R. Posen, *The Sources of Military Doctrine: France, Britain, and Germany Between the World Wars* (Ithaca, NY: Cornell University Press, 1984), 14.

armies in the late 19th and early 20th centuries.² If we accept that argument, the United States Navy was among the first military institutions to explicitly create a “doctrine,” and refer to it as such, though certainly not the first to have one.

It its earliest *official* uses, the U.S. Navy took a very broad view of the term. Speaking in 1912, for example, the President of the U.S. Naval War College explained that part of the college’s mission was to “spread abroad in the service both the general doctrine and its individual character building,” through “the investigation and exposition of strategic and tactical principles.”³ Although the notion of “doctrine” expressed here is somewhat broader than Posen’s, the basic conception is roughly the same; a set of ideas binding on, in this case, a service. By late 1917, when the Navy published an official doctrine, the term was defined as “a bond of mutual understanding . . . to coordinate decisions and to promote prompt and united action.” That understanding was based around a few simple concepts—offensive battle, action over maneuver, concentration—that guided fleet commanders and linked them to their subordinates without removing space for individual initiative.⁴

However, doctrine has a second, narrower, meaning that also applies to this project. This meaning is defined by Walter Kretchik as “a system of equipment, training, organization, and procedure . . . to create a common understanding of individual and unit actions to be undertaken when necessary.”⁵ Though closely related to Posen’s definition,

² Bert Chapman, *Military Doctrine: A Reference Handbook* (Santa Barbara, CA: ABC-CLIO, 2009), 2-3. The initial usage of “doctrine” in a military sense probably came from France.

³ Captain William L. Rodgers, Lecture, September 28, 1912, 1912 Summer Conference, Volume V, RG 12, Naval Historical Collection, U.S. Naval War College, Newport, RI, 107.

⁴ Admiral William S. Benson, “Doctrine,” December 1, 1917, National Archives Microfilm M1140, Roll 26, Subject 112-12, 2-3

⁵ Kretchik’s definition also tracks well with the very earliest “doctrines;” drill books from the 18th century and earlier, that focused on tactics almost to the exclusion of everything else.

Kretchik's definition brings doctrine down to a lower level, highlighting its tactical and operational utility. Kretchik went on to define doctrine as approved by a high authority in or above a given service, and disseminated through "written guidance," but that level of specificity is rather too limiting for services at the dawn of explicit doctrine formulation.⁶ By 1912, it is certainly fair to talk about a "battlecruiser doctrine" in the United States Navy, even if it was never explicated in anything as formal as a field manual or specific written guidance from the General Board. Likewise, the fleet or squadron orders prepared by unit commanders in the Royal Navy in the World War I period deserve consideration as doctrine, or at least attempted doctrine, despite their lack of high-level approval.

Living with the modern American military's penchant for jargon-filled manuals and white papers, we may think of doctrine as a fundamental component of an organized military, but that was not the case for the early twentieth century. Although the U.S. Navy came to embrace doctrine—in its guises as specific guidance and animating mentality—by the second decade of the century, this process was not matched in Britain. This is not to say that the Royal Navy tried and failed to create service-wide doctrines, but instead that the idea was alien to their way of doing business before the First World War.⁷ As one exasperated reformer put it in 1913, "[w]e seem so alarmed at the possibility of fostering a heresy that we commit ourselves straightaway to the 'doctrine of no doctrine,' which is in itself a dogma."⁸

⁶ Walter E. Kretchik, *U.S. Army Doctrine: From the American Revolution to the War on Terror* (Lawrence: University Press of Kansas, 2011), 2-6.

⁷ In *The Rules of the Game*, Andrew Gordon claims that the various iterations of the Royal Navy's signal books constituted a "doctrine," but that is hard to reconcile with the situation the Royal Navy found itself in during the First World War. On the tactical/operational level, the commander of the Grand Fleet and his most important subordinate did not share a sense of "unit actions to be undertaken." On the strategy/policy level, both men and the First Sea Lord had entirely incompatible ideas of how battlecruisers should be designed and used.

⁸ Commander Reginald Plunkett (later Drax), "Naval Education: Its Effect on Character and Intellect," *Naval Review*, February 1913, 31.

As useful as doctrine can be to military organizations, it is not a panacea. Much of the recent work on doctrinal development demonstrates how flawed doctrine can lock a military service into a decade or more of flawed policies, plans, and equipment. The classic example, of course, is pre-World War I Europe and its “ideology of the offensive,” which allowed European militaries to ignore mounting technical and empirical evidence that attack-minded doctrines were becoming increasingly untenable.⁹ In fact, the lack of a firm doctrine may have helped the Royal Navy in waging the First World War at sea; overspecialized officers and ships may have had a harder time coping with the dizzying variety of threats faced and operations undertaken during the war years.

With that said, the role of doctrine is one of the biggest differences between how the American and British navies thought in the early twentieth century, and one of the primary factors in the mixed performance of the British battlecruiser fleet in the First World War. While custom and received wisdom were sufficient for managing warship types with a long lineage like battleships and light cruisers, it proved unequal to the task of finding a niche for its battlecruisers, a fundamentally new category of ship. By contrast, when the U.S. Navy finally began building the ships in 1916, they did so from the perspective of a decade plus of debate on the strategic and tactical place of battlecruisers and already possessed a list of desired design attributes. To use a term borrowed from Meir Finkel’s *On Flexibility*, the U.S. Navy demonstrated its “doctrinal flexibility” to a greater extent than its British counterpart.¹⁰

⁹ This is the main argument of Jack Snyder’s *The Ideology of the Offensive: Military Decision Making and the Disasters of 1914* (Ithaca, NY: Cornell University Press, 1984).

¹⁰ Meir Finkel, *On Flexibility: Recovery from Technological and Doctrinal Surprise on the Battlefield* (Stanford, CA: Stanford Security Studies, 2011), 55-6.

Possessing a formal doctrine, however, was evidence of major differences between the two navies, not its cause. In accounting for the U.S. Navy's "doctrinal flexibility," we must turn to the cultural and organizational factors underlying policy developments. Neither the Royal Navy's unwillingness and/or inability to come up with a battlecruiser doctrine nor the U.S. Navy's enthusiastic adoption of the doctrine paradigm can simply be explained through an analysis of the officials running either Navy in this period. In fact, culture and organization represent the only plausible explanations. While the culture and organization of both navies were not static, changes in these categories came slower than shifts in policy and, in both cases, underlay these policy shifts.

The best way to examine the cultural factors here is through the "strategic culture" framework first developed in the 1980s. As defined by social scientist Alistair Iain Johnston, strategic culture is "an integrated 'system of symbols' which acts to establish pervasive and long-lasting strategic preferences by formulating concepts of the role and efficacy of military force in interstate political affairs, and by clothing these conceptions with such an aura of factuality that the strategic preferences seem uniquely realistic."¹¹ Simply put, Johnston argues that culture does not lead military institutions to make irrational decisions. Instead, their decisions are rational, but culture defines what "rational" means in different countries and services. The use of this sort of analysis carries with it the foundational assumption that "elites socialized in different strategic cultures will make different choices when placed in similar situations," a conclusion borne out by the period examined here.¹² Reasonable people can disagree about the "similarity" of the British and American situations in the early

¹¹Alistair Iain Johnston, "Thinking About Strategic Culture," *International Security*, vol. 19 no. 4 (Spring 1995), 46.

¹²Johnston, "Thinking About Strategic Culture," 35.

twentieth centuries, but it is beyond doubt that most of the *tactical* differences in British and American warships sprang from choice rather than circumstance. In that sense, both navies were attempting to find the “best” way to fight at sea.

This cultural approach to military strategy and policy has been adopted by military historians in recent decades and, as defined by them, forms a large part of this project’s conceptual background. John Lynn’s definition of strategic culture provides a good starting point: “the way a state’s political and military institutions conceive of and deal with armed conflict,” formed from the confluence of a state’s “societal culture” and the unique “military culture” of the units, service, or services under examination.¹³ Although Lynn, like many other historians, used culture to analyze combat, the definition holds true for a discussion of policymaking.

Indeed, many military historians have used some elements of strategic cultural analysis to inform comparative works on military institutions.¹⁴ Viewed in that light, the approach meshes well with many of the implicit and explicit critiques of the “rationalist” perspective in Posen and Snyder’s work. Here, the most useful critique comes from Elizabeth Kier’s *Imagining War*.¹⁵ In her examination of French and British army doctrine in the interwar period, she found that neither shifts in policy, nor the doctrines they entered the

¹³ John A. Lynn, *Battle: A History of Combat and Culture* (Boulder, CO: Westview, 2003), xx.

¹⁴ Even before the term came into vogue, Russell Weigley’s *The American War of War* (New York: Macmillan, 1973) described the baseline strategic culture of the United States. Recently Mary Habeck’s *Storm of Steel: The Development of Armor Doctrine in Germany and the Soviet Union, 1919-1939* (Ithaca, NY: Cornell University Press, 2003), Timothy Moy’s *War Machines: Transforming Technologies in the U.S. Military, 1920-1940* (College Station: Texas A&M University Press, 2001), and Isabel Hull’s *Absolute Destruction* (Ithaca, NY: Cornell University Press, 2004) have taken this approach, albeit on a smaller scale. Taken in concert with intellectual history, it can lead to magisterial works like Azar Gat’s *A History of Military Thought* (Oxford, UK: Oxford University Press, 2001).

¹⁵ Elizabeth Kier, *Imagining War: French and British Military Doctrine between the Wars* (Princeton: Princeton University Press, 1997), 5.

Second World War with could be fully explained by the rationalist arguments of Posen and Snyder. Instead, Kier found that the process of doctrine formulation is inseparable from military culture—not the “military mindset” writ large as the two earlier authors, but the specific culture of the two subject militaries.¹⁶

The literature tends to treat strategic culture as something rather too fixed. Although there were ever-present aspects of American and British culture that separated the two services from each other, within each institution, the strategic culture was hardly static. Generational shifts, and, especially in Britain, the First World War ensured that the mindset of the two officer corps in 1922 was very different from those of 1904. These shifts were more than men with a similar mindset reacting to a new set of outside stimuli; the entire way of thinking about warfare profoundly changed in both countries. To give a short example, there is no chance that the U.S. Navy of 1904 would have been as eager to build battlecruisers as the U.S. Navy of 1912; on the contrary, it would have rejected them altogether.

Still, at their most basic levels, both navies certainly had different cultures, differences that manifested in a myriad of ways. As a number of authors have ably demonstrated, the U.S. Navy’s officer corps was thoroughly permeated with the ideology of navalism. At its simplest, American navalism can be described as “the dedication to the creation of an imperial navy,” based on a strong fleet of battleships.¹⁷ In practice, navalism encompassed a set of assumptions and beliefs about naval warfare that extended to almost all elements of American naval policy and strategy. Crucially, these beliefs were shared by

¹⁶ Kier, *Imagining War*, 21.

¹⁷ Mark Russell Schulman, *Navalism and the Emergence of American Sea Power, 1882-1893* (Annapolis, MD: Naval Institute Press, 1995), 2.

essentially the entire naval officer corps in the United States. While the 1904-1922 period witnessed constant debate amongst American officers, these were arguments about how best to achieve shared goals, not clashes about the direction of American naval policy.

A large part of this intellectual harmony came from their shared training. In the United States, all line officers were produced by the U.S. Naval Academy in Annapolis which gave the officer corps a certain “ease and depth of identification” with the Navy and each other. That, in itself is unsurprising in a military organization, although the American system was somewhat unique in educating *all* naval officers at the same site. It also gave them a university education, though one with more emphasis placed on naval subjects like navigation than the liberal arts. Given the setting, however, it was perhaps inevitable that training at Annapolis tended towards academic lines; even subjects like seamanship were primarily taught in the classroom rather than aboard ship.¹⁸

At some point in their careers, most of the American officers bound for high command would attend the Naval War College, located in Newport, RI.¹⁹ While the War

¹⁸ Peter Karsten, *The Naval Aristocracy: The Golden Age of Annapolis and the Emergence of Modern American Navalism* (New York: The Free Press, 1972), 23-51.

¹⁹ It has been argued that the War College “did not mark an officer for higher rank [,] nor was it viewed as a prerequisite for promotion to flag rank” until the 1920s and 30s (Bönker, *Militarism*, 272; but the same sentiment can be found elsewhere in the relevant literature). That argument, though factually accurate, somewhat obscures the War College’s influence on the highest levels of the U.S. Navy. Promotion to flag rank had little to do with the War College for most of this period because there was no real promotion by selection in the U.S. Navy until 1916-17 (The first such promotion board elevated eight regular-service officers from captain to admiral; seven had attended the War College and the eighth had been an instructor). Even before that, the Navy’s plum assignments showed a decided bias towards War College graduates. From 1905 to 1922, for example, all nine of the commanders of the Atlantic Fleet, the U.S. Navy’s premier formation, had a stint as a War College student or staffer. Likewise, the Naval War College President was an *ex officio* member of the General Board from its beginning in 1901, and the regular membership of the Navy’s General Board, from about 1910, skewed heavily towards Newport men. At the end of that year, five of eight General Board members had attended the War College course, a much higher proportion of War College men than the officer corps as a whole. From 1903 to American entry into World War I in 1917, 351 officers attended courses at the War College; slightly more than a third reached flag rank at some point in their careers. Even in the early class of the College, before the Spanish-American War a disproportionate number of War College graduates reached flag rank; slightly less than ¼. See Donald Chisholm’s *Waiting for Dead Men’s Shoes* (Stanford UP, 2001), 493-593; *Proceedings and Hearings of the General Board of the United States Navy* (Washington: National

College had several weaknesses—a short course of three to four months’ duration before the 1911-12 session, poor institutional support, and low interest from the officer corps foremost amongst them—it nevertheless managed to play a role that belied its structural weaknesses in the early twentieth century.²⁰ In their brief time at the War College, officers heard lectures from some of the sharpest minds in the U.S. Navy, helped to develop the Navy’s preliminary war plans, and debated the future of warship design and national strategy. Effectively, the students and staff served as an ersatz naval staff; lacking one in Washington, the Navy’s leadership played close attention to goings-on in Newport, and frequently commissioned reports on matters of policy and strategy.

Founded in 1885, the War College sprang from an urge amongst a small group of officers, led by then-Commodore Stephen B. Luce, to professionalize the Navy. Mimicking the trend in professions like medicine and the law in the late 19th century U.S., the Naval War College helped to create “a specialized, theoretical body of knowledge . . . which would entitle [naval officers] to claim the status of a distinct body of practitioners possessed of a unique expertise.”²¹ In large part, this “body of knowledge” was provided by the works of Alfred Thayer Mahan, an instructor at Newport. Mahan’s work gave the American officer corps a grand strategy based around colonies and large battle fleets as well as a common lexicon with which to discuss and analyze naval warfare; ostensibly neutral terms like “sea

Archive Microfilm Publications 1987); and “The United States Naval War College Register of Officers, 1884-1979,” which can be found in the office of the Naval Historical Collection’s chief archivist, or online at: <https://www.usnwc.edu/getattachment/de2da848-af41-42d1-b715-adb3dfdbb834/NWC-Students---Faculty1884to1979.aspx>.

²⁰Ronald Spector, *Professors of War: The Naval War College and the Development of the Naval Profession* (Newport, RI: Naval War College Press, 1977), 121.

²¹ Spector, *Professors* 4.

power” and “command of the sea” were, for most American officers, defined through Mahan’s writings.²²

This latter aspect of Mahan’s work is perhaps more important than his strategic insights, and is certainly so for the period covered here. After all, American officers of the 1904-1922 period knew Mahan variously as a peer, a teacher, a writer, and an influence, but not necessarily as an unimpeachable apostle of naval policy, especially when he wrote about current affairs. Writing in 1906, a War College graduate described Mahan, who “never was brilliant as an officer,” as “classed among the reactionaries and back numbers in questions of progress and right modern development. . . . I wish he would keep quiet on these matters.”²³ Though the author’s opinion was harsh, it was hardly rare. Henry Stimson’s famous quip that the Navy “frequently seemed to retire from the realm of logic into a dim religious world in which Neptune was God, Mahan his prophet, and the United States Navy the only true

²² Mahan holds an interesting place in American naval historiography, being both a frequent subject and, arguably, its originator. As such, many subsequent naval histories take his ideas as their starting points, from the Sprouts in the mid-twentieth century to the Hones’ *Battle Line* in 2006. As far as works grappling with Mahan’s theories and legacy, the earliest was William Livezy’s *Mahan on Sea Power* (Norman: University of Oklahoma Press, 1947), which linked Mahan’s theories with his policy preferences, and suggests that the former flowed from the latter. Several of the essays in the Kenneth Hagan-edited *In Peace and War* (Westport, CT: Greenwood Press, 1978, 1st ed.) grapple with Mahan’s legacy, most notably Ronald Spector’s “The Triumph of Professional Ideology,” which contextualizes Mahan in the Navy politics of the 1880s and 90s. The current approach to Mahan has been much influenced by two War College conferences from the early 1990s, later published as *The Influence of History on Mahan* (Newport: Naval War College Press, 1991) and *Mahan is Not Enough* (Newport: Naval War College Press, 1993). Taken together, the two books go some way towards demystifying Mahan, pointing out gaps in his thinking, and highlighting the importance of other near-contemporary strategists like Julian Corbett and Herbert Richmond. A few years later, Jon Tetsuro Sumida wrote *Inventing Grand Strategy and Teaching Command* (Washington, D.C. and Baltimore: The Woodrow Wilson Center Press and The Johns Hopkins University Press, 1997), which interprets all of Mahan’s works as pedagogical tools “to educate future practitioners of naval warfare, *not* to create a system of naval thought” (xv).

²³ Commander [John?] Hood, letter to Lieutenant Commander William S. Sims, November 28, 1906, Box 15, William Sowden Sims Papers, Manuscript Room, Library of Congress.

Church,” may have applied by the 1940s. Within the early twentieth century Navy, certainly among those officers who interacted with him, Mahan was respected, but not infallible.²⁴

Even those younger officers who disagreed with Mahan, and eventually curbed his influence in contemporary naval debates, agreed with him on the broad strokes of the “science of sea power.” Their dispute with Mahan revolved around their distaste for his historical approach, which they saw as unequal to the task of developing naval strategy in an age of rapidly changing technologies. Although they shared his belief in the “principles” of sea power, and mostly agreed with the principles themselves, officers like Bradley Fiske and William S. Sims believed that those principles could only be applied by officers with the technical expertise that Mahan lacked.²⁵

Still, as Stimson’s exasperation indicates, Mahan’s focus on naval warfare conducted by fleets of battleships (later, carriers were shoehorned in) remained at the heart of the American naval mentality well after his death in 1914.²⁶ This was, however, because in advocating for them, Mahan stood as part of a group of reform-minded officers around Stephen B. Luce in the 1880s, all agitating in their own ways for a large battle fleet. Their arguments reflected the majority opinion of the officer corps, and as the Navy pursued its battle fleet policy from the early 1890s on, Mahan stood as the most skillful propagandist on its behalf. In other words, the key insights of Mahan did not change American naval opinion,

²⁴ Henry L. Stimson and McGeorge Bundy, *On Active Service in Peace and War* (New York: Harper, 1948), 506.

²⁵ Dirk Bönker, *Militarism in a Global Age: Naval Ambitions in Germany and the United States before World War I* (Ithaca, NY: Cornell University Press, 2012), 255-61.

²⁶ See, for example, books like John Adams’s *If Mahan Ran the Great Pacific War* (Bloomington: Indiana University Press, 2008), and, more seriously, Benjamin Armstrong’s *21st Century Mahan* (Annapolis: Naval Institute Press, 2013), which focuses more on Mahan’s writings about the naval profession.

but couched those opinions in the terms of a professional ideology, justifying the officer corps self-understanding as “the masters of a special and distinct science of naval warfare.”²⁷

Arguably, this definition of “professional” did not apply to the Royal Navy, based on its system of officer training, which was not nearly as concerned with intellectual formation, and not at all with theoretical naval knowledge. The training scheme for officers entering the British Navy experienced more upheaval than the American system in the late 19th and early 20th centuries, but in any of its iterations, it placed a premium on mathematics and practical naval and maritime skills. Most of the senior officers serving between 1904 and 1922 were products of two years in HMS *Britannia*, the Royal Navy’s training establishment for line officers (a very small number of aged officers, including Fisher, joined the Navy before the *Britannia* system, and were sent directly to sea as officer cadets). Boys as young as 12 years old joined *Britannia*, after passing a set of competitive examinations. There, the cadets were “forc[ed] . . . into a pre-conceived and rigid mould by the application of harsh, even inhuman discipline.”²⁸ After those two years, officer trainees were dispatched to active vessels for service as midshipmen, where they developed and refined seamanship skills learned on *Britannia*. After that, the young sub-lieutenants were sent to the naval college at Greenwich to study for their lieutenants’ examinations. Later on, after passing their lieutenant’s exams, many line officers went to one of the Navy’s training establishments to qualify as experts in signals, navigation, gunnery, or torpedoes.

²⁷ Ronald Spector, “The Triumph of Professional Ideology: The U.S. Navy in the 1890s,” in *In Peace and War*, 175-84.

²⁸ Stephen Roskill, *Admiral of the Fleet Earl Beatty: The Last Naval Hero, an Intimate Biography* (London: Collins, 1980), 21-2.

The last two specializations tended to attract the best officers, which was reasonable enough, as weapons are the entire point of a warship. However, as a *Naval Review* article noted in 1914, the Royal Navy's promotion structure incentivized lieutenants (G) or (T) to focus on their specializations instead of general executive duties. As a result, many of the best and brightest in the Royal Navy spent most of the years between ages 22 and 38 (the earliest age for regular promotion to captain) working at technical establishments ashore or in very narrow duties afloat.²⁹

As the summary above suggests, officer education in the Royal Navy revolved around practical subjects relating to seamanship and fighting, merged with the academic knowledge—primarily mathematics, natural science, and engineering—needed to understand those skills. Although there were lectures on history at Greenwich, it was hardly the focus of the education on offer there. As Herbert Richmond, a talented historian and staff officer put it in 1913:

An officer may pass from the rank of naval cadet to that of post-captain, or even admiral, without having his attention drawn to, or his interest stimulated in, the higher side of his professional work--the side, in fact, that concerns him as a captain and, more particularly, as an admiral. When he reaches these ranks he may go to the War College: but it is to be observed that in all the years that have passed since he was last under instruction he has had no incentive whatever to employ that portion of his brain that is concerned with analysis and reasoning.³⁰

Although the Royal Navy had a War College (initially called the War Course) from 1901 on, the available raw material was not ideal.³¹

²⁹ Captain J.D. Allen, "Specialization; and its Drawbacks as Regards Training of Officers for High Commands," *Naval Review*, May 1914, 141-4.

³⁰ Capt., Herbert Richmond, "Introductory," *Naval Review*, February 1913, 9. Like all of the *Naval Review's* articles, this one was published anonymously at the time. A list of authors for its first volumes between 1913 and 1930 can be found in an appendix to *Mahan is not Enough*, 341-405.

³¹ For the reader's benefit, I will refer to it as the Royal Naval War College except in places where the War Course/War College distinction is critical to analysis.

Still, if an officer got to the War College, the quality of instruction was superb. Its first head, Henry May was a talented lecturer and thinker, and, before his premature death in 1904, he contributed to the collection of a talented group of instructors. Preeminent among these was the naval historian Julian Corbett, who developed his theories of sea power while preparing his War College lectures. Although, as will be discussed below, the R.N. War College did not have the same impact on its service as the American version, a number of officers who rose to high command in the First World War passed through the institution beforehand, including David Beatty, Rosslyn Wemyss, and Roger Keyes.³² Still, the Royal Navy entered the war “desperately short of first-class minds,” an indication of failures at the top and bottom of its officer education system.³³

Understandably, the British and American training systems produced different types of line officer (setting aside, for our purposes, their divergent means of training engineers and naval constructors). Broadly speaking, the U.S. Navy trained its officers to be officers first and seamen second, while the British system did the exact opposite.³⁴ It would be very unlikely that Alfred Thayer Mahan, for example, a *very* poor sailor, could have had a lengthy career in the Royal Navy, which placed a premium on seamanship. Similarly, John Jellicoe, the first commander of the British Grand Fleet, was an officer of immense practical experience and technical knowledge who lacked any semblance of preparatory education for

³² Andrew Lambert, “The Naval War Course, *Some Principles of Naval Strategy* and the origins of ‘The British Way in Warfare,’” in *The British Way in Warfare: Power and the International System, 1856-1956*, eds. Keith Neilson and Greg Kenney (Farnham, UK: Ashgate, 2010), 221-50.

³³ A. Lambert, “History as Process and Record: The Royal Navy and Officer Education,” in *Military Education Past, Present, and Future*,” eds. Gregory Kennedy and Keith Neilson, (Westport, CT: Praeger, 2002), 95.

³⁴ This may have something to do with the social background of the respective officer corps. Though both navies drew the overwhelming majority of their officer trainees from high on the social ladder, it was *possible* (though rare) for a talented young man from the lower social classes to receive an appointment to Annapolis and pass the rigorous entrance exam (see Karsten, *Naval Aristocracy*, 42-3). The formal and informal entrance requirements to *Britannia* made it effectively impossible for anyone from the lower classes to enter.

the large-scale issues of strategy he confronted in that role. Indeed, he somehow managed to avoid reading Mahan's work until his 1916 stint as First Sea Lord.³⁵ This obviously gave American and British officers very different intellectual approaches and styles.

At the same time, the educational environment shaped the way officers perceived and identified themselves within the service. The influence of the Academy on the U.S. Navy's intellectual formation has been discussed above, and loomed equally large in the officer corps' self-identification. After all, an American officer would have had some contact with seven full classes of Academy graduates; his own class, as well as the three above and below his own. At any given time in his career, this would represent a substantial percentage of officers at his grade, and those that he did not know from the Academy, he most likely would have encountered at some point during his service. This increased the further up the ranks one went. For example, on July 1, 1914, there were 1,881 officers in the U.S. Navy, of whom 237 were commanders, captains, and admirals.³⁶ With so few officers in the middle and senior grades, it was nearly certain that if an officer did not know most of his peers, immediate subordinates, and superiors, he was "at most one or two acquaintances removed from knowing" them.³⁷ Although the U.S. Navy expanded during the First World War and stabilized at a level larger than the prewar Navy, these connections amongst mid-level and senior officers continued well after the Washington Treaty.

³⁵ Lambert, "Officer Education," 95.

³⁶ Rear Admiral Victor Blue, "Report of the Chief of the Bureau of Navigation," November 1, 1914, in *Annual Reports of the Navy Department for the Fiscal Year 1914* (Washington: Government Printing Office, 1915), 144.

³⁷ John T. Kuehn, *Agents of Innovation: The General Board and the Design of the Fleet that Defeated the Japanese Navy* (Annapolis: Naval Institute Press, 2008), 9.

This feature of the American officer corps also explains the influence relatively junior officers could have over naval policy. With an officer corps so small and so homogenous in outlook and training, belonging to the same “club” erased some of the awkwardness of listening to low and mid-level officers. For example, William Sims, the officer responsible for bringing modern gunnery practices to the U.S. Navy, started doing so as a lieutenant commander, and soon became a trusted advisor to President Theodore Roosevelt. Throughout his career, Sims was widely respected in the Navy for his grasp of contemporary naval policy and technology. More broadly, every summer at the Naval War College, the Navy’s General Board took in the Summer Conference’s debates over naval policy—debates with frequent input those at or below the rank of lieutenant commander—and often adjusted their policies based on those arguments. Undoubtedly, the feeling of camaraderie cultivated at Annapolis helped to facilitate these exchanges of ideas. It certainly helped that, for most of the period under consideration, promotion in the U.S. Navy rested largely on seniority; advancement was almost automatic, curbing unseemly squabbles for promotion.³⁸

The same could not be said for the British officer corps in the period. Although most line officers went through *Britannia*, their time there was short, their lives were unremittingly miserable, and the rigid divisions between classes (divided not just by year, but the time of their entrance within a given year), prevented the formation of broader social networks, as did the size of the British officer corps and the Royal Navy’s worldwide dispositions.³⁹

³⁸ Officers, especially those without recent sea service could be removed from the Navy by “plucking boards,” to make way for, presumably, more vigorous officers. Officers removed from the Navy by those boards frequently brought their cases before Congress. Promotion was based on seniority, and seen as a matter of meeting a “threshold of competence” rather than outperforming peers. Chisholm, *Dead Men’s Shoes*, 591.

³⁹ On the eve of the Great War, the Royal Navy was about three times the size of the U.S. Navy. As of mid-1914, there were approximately 54,174 officers and men in the U.S. Navy and 145,574 in the Royal Navy. The latter, of course, was spread out over far more fleets and stations than the U.S. Navy, further decreasing chances for officers to interact. Data taken from 1914 Bureau of Navigation report, and N. Lambert, *Revolution*, 311.

Likewise, the midshipman experience, while fostering lifelong connections between those stationed on the same ship or in the same fleet, encouraged the development of narrow cliques of old fleet- or shipmates within a much larger officer corps. As an organization, the Royal Navy was riven with patronage networks based around particular senior officers, wardrooms, and service schools, like the torpedo school HMS *Vernon* and the gunnery school HMS *Excellent*, rather than the relatively broad familiarity American officers had with one another.⁴⁰

The existence of these networks had a baleful impact on the Royal Navy as an institution. Senior officers like Fisher, and Lord Charles Beresford, his major opponent, maintained patronage networks of officers loyal to them who largely shared their views. While any senior officer would be expected to surround himself with like-minded aides and assistants, the narrowness of these networks prevented the free exchange of views between the Admiralty and fleet commanders afloat while factionalizing the officer corps. The struggle between the “Fishpond,” and Beresford’s partisans in the Channel Fleet, for example, came close to tearing the Royal Navy asunder in the first decade of the century.⁴¹ Likewise, the sniping between staffs of the senior commanders of the First World War, John Jellicoe and David Beatty, poisoned the well in the postwar Admiralty. Richmond may have been slightly unfair when he complained of senior officers “promoted by favouritism and

⁴⁰ In addition to the sources cited, see Gordon, *Rules of the Game*, 315-39, which examines the networks formed by service with the HMS *Vernon* torpedo school, links with royalty, the Royal Geographical Society, and freemasonry.

⁴¹ This struggle has been, to say the least, well covered in the literature. See, for example, Marder, *Road to War*, 71-104; Robert K. Massie, *Dreadnought: Britain, Germany, and the Coming of the Great War* (New York: Random House, 1991), 498-546; and Peter Padfield, *The Great Naval Race: The Anglo-German naval Rivalry, 1900-1914* (New York: McKay, 1974), 115-40.

ignorant of anything which demanded a close study,” but he was distressingly close to the mark.⁴²

Understandably, the two navies approached the world in very different ways. The ideology of navalism, expressed through Mahan, undergirded all aspects of the U.S. Navy and injected a strain of impracticality into American naval planning. Well before the United States Navy reached rough parity with the Royal Navy in the early 1920s, American officers assumed that it was an inevitability and planned accordingly. For example, in 1903, the Navy’s General Board set a goal of a 48-battleship Navy by 1919 at the latest, a plan with no conceivable grounding in political, financial, or strategic realities (by comparison, the British fleet at the Battle of Jutland in 1916 had 28 battleships and 9 battlecruisers). Similarly, when American officers at the Naval War College pondered issues of naval strategy and theory, they did so on a grand scale, often without reference to the size and composition of the American fleet at a given time. This mismatch between desire and capability remained operative in the United States Navy until at least 1916.

The Royal Navy, on the other hand, did not have to justify its existence or size through any ideology. To anyone alive at the turn of the century, British naval power simply *was*, with no need for modifiers and explanations. Unsurprisingly, then, no one in the Royal Navy developed a comprehensive theory of sea power.⁴³ Indeed, very few officers in the Royal Navy seem to have given larger issues of strategy and policy much thought. Those

⁴² Herbert Richmond diary, April 6, 1907, RIC/1/7, Caird Library, National Maritime Museum, Greenwich, UK.

⁴³ It is a matter for debate whether or not Julian Corbett’s *Some Principles of Maritime Strategy* (London: Longmans, Green and Co, 1911) represents such an attempt. I am inclined to say that it does. For an alternative viewpoint, see N. Lambert’s “False Prophet?: The Maritime Theory of Julian Corbett and Professional Military Education,” (*Journal of Military History*, July 2013), which argues that the basis for *Some Principles*, Corbett’s “Green Pamphlet” is best seen as a purely pedagogical tool for officers at the War College. At any rate, Corbett was not a sailor and, given his somewhat ambiguous status as an instructor, rather than a staffer, his influence on policy is difficult to rate.

naval writers that Britain did produce, mostly civilians like John Laughton and Julian Corbett, tended to develop descriptive theories of naval warfare, rather than the prescriptive “Mahanism” that dominated American thought in the era.⁴⁴

British officers, even those in positions of influence, were disinclined to think deeply about those larger strategic issues that Americans considered essential to the profession. As Andrew Gordon pithily noted, “[t]hey thought they were good, but in ways that mattered, they were not. They thought that they were ready for war, but they were not.”⁴⁵ Gordon’s analysis of the British Navy before the war focuses on tactical command and control, but his conclusion is equally true for higher-level strategic and policy matters. These, of course, are not subjects that every officer needed to concern himself with, but grounding in, and experience with these issues, were rare even in the Royal Navy’s high command. Herbert Richmond, for example, one of the few British officers who had devoted serious thought to matters of strategy and naval theory, frequently decried the “materialist” focus of the service’s leadership, which substituted the maintenance of a large fleet of individually excellent warships for strategic insight. It is hard not to agree with him when considering the prewar and early war debates over battlecruisers, for example, conducted as they were by a group of senior officers who seemed incapable of expressing their strategic and operational preferences in mutually intelligible language.

⁴⁴ Though somewhat dated, Donald Schurman’s *The Education of a Navy* (Chicago: University of Chicago Press, 1965) remains one of the better works on the state of naval theory in Britain in the First World War period, especially when supplemented with his *Julian S. Corbett: Historian of British Maritime Policy from Drake to Jellicoe* (London: Royal Historical Society, 1981). More recent works on the subject include the edited collection, *Mahan is Not Enough: The Proceedings of a Conference on the Works of Sir Julian Corbett and Admiral Sir Herbert Richmond*, eds. James Goldrick and John Hattendorf (Newport: Naval War College Press, 1993), Andrew Lambert’s biography of John Knox Laughton, *The Foundations of Naval History* (London: Chatham, 1998) and Grimes’s *Strategy and War Planning in the British Navy, 1887-1918*.

⁴⁵ Gordon, *Rules of the Game*, 594.

Furthermore, these differing strategic cultures were modified by the institutions and administrative organization of the two services. We have already mentioned the two navies' war colleges in the context of naval education, but their larger structure and organization also served to mediate and modify the decision-making process of both navies. Broadly speaking, the administrative structure of the U.S. Navy forced a measure of consensus into American planning and policy. The unwieldy apparatus of American naval administration was impossible to shift without everyone pulling in the same direction. By contrast, the structure of the Royal Navy encouraged dictatorial control over policy and materiel by the Admiralty Board, usually dominated by its most forceful member, either the First Sea Lord or the First Lord himself. Failing an assertive leader in either position, the Admiralty Board floated along without direction.

Admiral Fisher's reforms would have been impossible without this structure of centralized decision-making. He also benefited from a subtle change in the Board's structure when he entered office in 1904. At the time, the Board consisted of the First Lord, the Civil Lord, the Parliamentary Secretary—all political appointees; the (Permanent) Secretary, a civil servant; and four naval lords. To 1904, the duties of these four lords had been somewhat diffuse. After Fisher's arrival, they were laid out as follows: The 4th Sea Lord, responsible for transport and stores; the 3rd Sea Lord, responsible for administration of materiel; the 2nd Sea Lord, in charge of personnel; and the First Sea Lord responsible for all of the above, as well as the "fighting and sea-going efficiency of the fleet."⁴⁶ These changes were made by the First Lord, the Earl of Selborne, at Fisher's urging, and made the First Sea Lord the only naval member of the Board with executive functions. One historian has suggested that

⁴⁶ Arthur J. Marder, *From the Dreadnought to Scapa Flow: The Royal Naval in the Fisher Era, 1904-1919; Volume I: The Road to War, 1904-1914* (London: Oxford University Press, 1961), 20.

Selborne made these changes “in the hope that the direction of a powerful individual might serve in the absence of an articulate bureaucratic mechanism of policy making.”⁴⁷ If so, the shift was certainly a success.

In lieu of a formal staff, which he eschewed as a break on his prerogatives, Fisher relied on the R.N. War College and the Naval Intelligence Department to fill some functions of the absent staff. Even before Fisher’s arrival, the NID had been trending in that direction. From its beginning in 1887, the NID included a branch charged with drawing up mobilization schemes. By the time of Fisher’s elevation in 1904, the NID also had a branch dealing with trade, and another one concerned with war plans and strategy.⁴⁸ In effect, the NID served as a proto-general staff. The NID, in the person of DNI Reginald Custance, was also responsible for the creation of the War College “to raise the profile of is department in Admiralty policymaking. Not only could the War College provide officers fit for NID service, but the NID also sent the War College questions it lacked the time or manpower to consider.”⁴⁹

Under Fisher, this arrangement was personalized. From the beginning, War College reports were sent around the Navy, but under Fisher’s patronage, the Course/College became a sort of personal think-tank, “a quasi-official body, under his control, to deal with the politico-strategic problems thrown up by his bitter rivalry with the Staff-led Army or with Admiral Sir Charles Beresford.” In concert with the NID, the College’s staff and students could partake in elaborate war games and simulations, analyze and discuss issues of strategy,

⁴⁷ Sumida, *Defence*, 27.

⁴⁸ C.I. Hamilton, *The Making of the Modern Admiralty: British Naval Policy-Making 1805-1927* (Cambridge, UK: Cambridge University Press, 2011), 218-219.

⁴⁹ A. Lambert, “Naval War Course,” 222-3.

and send detailed memoranda on both up to the First Lord in the Admiralty. The 1907 War Plans, for example, which went some way to pitting Beresford and Fisher and each other's throats, were primarily produced by an NID officer using the resources of the War College.⁵⁰

This arrangement was informal, and there was no obligation on the part of Admiralty leadership to heed their advice. Before the First World War, the Royal Navy remained a hostile environment for staff work. Even the formal naval staff created in 1912 lacked statutory power and a spot on the Board. Many line officers seem to have viewed any sort of naval staff as an affront to the prerogative of commanders, and a dumping ground for officers incapable of real command. It did not reach full effectiveness until the First Sea Lord was "dual hatted" as Chief of the Naval Staff partway through the war.⁵¹

Furthermore, the sort of planning and staff work emphasized in the Royal Navy was rather limited. Both the NID and the War College developed war plans, but these were, as the War College's first set of instructions outlined, "operations under *existing* conditions," (emphasis added) not exercises intended to identify future needs or dispositions.⁵² Likewise, neither body was capable of, or interested in the creation of doctrine for the Royal Navy, principles that would have aided in discussing and making naval policy.⁵³ Even the Naval Staff was not given any oversight of training functions until 1914. While at the War College, Corbett made some efforts along these lines, culminating in *Some Principles of Maritime Strategy* in 1911 but the book, though excellent, hardly served as a guide for British naval thinking and policy during Corbett's lifetime.

⁵⁰ A. Lambert, "Naval War Course," 228-237.

⁵¹ Nicholas Black, *The British Naval Staff in the First World War*, 307.

⁵² A. Lambert, "Naval War Course," 222.

⁵³ Hamilton, *Making of the Modern Admiralty*, 242.

These weak staff bodies gave the Board, especially the First Lord and First Sea Lord, a great deal of latitude. The two men were, before the war, effectively free to make naval policy in concert, or with the acquiescence of one or the other. This was especially true in areas where policy could be quickly realized; fields like warship design or fleet dispositions, which demanded centralization, and did not require a large executive staff.⁵⁴ However, this left naval policy at the whim of one or two individuals, one of whom, by recent custom, entirely lacked naval experience. Furthermore, there was no way to disseminate the assumptions and ideas behind these policies to the rest of the Navy, through staff officers returning to the fleet, central control over fleet training and operations, or common training.

If the British Navy suffered from too much centralization of policymaking, the U.S. Navy suffered from the exact opposite condition. Statutorily, the Secretary of the Navy, a rough analogue of the First Lord, exercised total executive control of the Navy. In practice, significant power rested with the uniformed heads of the Navy's bureaux, the most important of which oversaw personnel (Navigation), weapons design and construction (Ordnance), warship design and construction (Construction & Repair), and propulsion (Steam Engineering). Apart from C&R, which was led by the head of the Corps of Constructors, the other bureaux mentioned here were run by line officers.

As with the First Lord, the Secretary of the Navy was a civilian politician, usually with no appreciable naval experience. Unlike the First Lord, the American secretary was not provided naval advisors to help him with the purely military, as opposed to administrative, aspects of the job. To aid him in making decisions, Secretary of the Navy John D. Long created the General Board in 1900. A successor to the Navy Department's ad hoc board of

⁵⁴ Designing warships, of course, required a large and specialized staff of naval architects and engineers, but it was a simple matter to give them a list of design parameters to incorporate into a specific class of ship.

strategy advisors from the Spanish-American War, the General Board was a weak organization with no authority over the bureaux or the active fleet; responsibilities that remained the sole province of the Secretary. Leading it was Admiral of the Navy George Dewey, the victor at Manila Bay, overseeing a mixture of ex-officio members like the head of the Bureau of Navigation, and officers at or above the rank of lieutenant commander detailed for service on the Board.⁵⁵

Dewey's leadership of the Board between its formation and his death in 1917 was critical to its work, though too subtle to show up in its memoranda. Keenly aware of his personal limitations—he was never seen as a keen theorist, tactician, or technologist—Dewey managed the General Board as “a moderator and facilitator.” His main tool of control was his power over selection to the Board itself, and its limited number of aides. Through that power, Dewey steadily pressed for “professional cohesion and incremental change,” rather than radical changes.⁵⁶

Outside of the Board, Dewey's prestige gave it a legitimacy that belied its recent foundation. Although the Board had no statutory authority, it quickly came to be seen as the Navy's brain, providing advice for the Secretary on every aspect of naval policy. While the Secretary was free to overrule the Board, its experience, the disjointed Bureau system, and, in the person of Dewey, the Board's prestige, meant that it came to be seen as the “official” voice of the Navy as a service both within and without. Despite the greater statutory power wielded by the Bureau chiefs, the General Board often spoke loudest in internal debates, and

⁵⁵ Kuehn, *Agents of Innovation*, 11.

⁵⁶ Bönker, *Militarism in a Global Age*, 294-6. See Ronald Spector, *Admiral of the New Empire: The Life and Career of George Dewey* (Baton Rouge: Louisiana State University Press, 1974) for more on Dewey's term as Admiral of the Navy, especially pp. 122-78. Daniel J. Costello's “Planning for War: A History of the General Board of the Navy, 1900-1914” (Ph.D. diss, Tufts, 1968), and the first chapter of *Agents of Innovation* also discusses the General Board's role before World War I at length.

frequently had a greater influence on the Secretary's actions. When seeking to interrogate a Navy man on naval policy, Congress frequently chose a Board member. It is a mark of the success of this "system" that the introduction of a naval staff in 1915 initially caused more problems than it solved. Despite the increasing influence of that staff, the General Board played a key role in naval policymaking, especially in warship design, through the Second World War.⁵⁷

For the 1904-22 period, however, the General Board was firmly in charge of developing war plans and strategy. In theory, these plans were developed with the Army through the Joint Board but, in practice, the General Board was unconstrained by external factors, and most of this work devolved onto a small committee of the Board itself. Rather than consultation with the Secretary, President, or State Department on politics, the Board relied on its own formulation of threats to the U.S. and its interests. These were based on navalist interpretations of world politics, undergirded by Mahan's theories of commerce and empire. In their view, the United States was "destined" to exert predominant influence over the Western Hemisphere and Pacific, so long as those regions were protected from rapacious rising powers like Japan and Germany and a jealous Great Britain.⁵⁸ As one War College document put it, German territorial expansion in the New World "is not sentimental; it is necessary, and the project has been consistently pursued." The same document theorized that German fifth columnists disguised as recreational shooting clubs might seize control of Brazil, suggesting the level of geopolitical analysis current in the Navy's strategic elite.⁵⁹

⁵⁷ Kuehn's *Agents of Innovation* is the best source on the Board's influence in the interwar years.

⁵⁸ Bönker, *Militarism in a Global Age*, 36-46; Miller, *War Plan Orange*, 19-30.

⁵⁹ Naval War College, "Summer Problem of 1903. Strategy," Volume 9, RG 12, NHC.

In line with the Board's markedly bloody—perhaps paranoid—view of the international system, their construction policy existed on a grand scale. In 1903, Secretary William Moody asked the General Board how big the American fleet should be. The Board responded with a memorandum, General Board No. 420, calling for a gargantuan fleet of 48 battleships, 24 armored cruisers, 48 protected cruisers, 48 scout cruisers, and 48 destroyers.⁶⁰ This armada was bigger than any extant Navy and, indeed, larger than the combined British and German fleets at Jutland in all classes except destroyers.⁶¹ Through 1908, the General Board's authority over construction was tangled with that of the “innately conservative” Board on Construction, which retarded the development of dreadnought battleships.⁶²

Aiding the Board was the Naval War College. When the College was out of session, staff war games and report were frequently forwarded on to the General Board in Washington. The War College staff also helped the General Board develop training exercises for the fleet, often based on Newport war games.⁶³ During the summer, the General Board decamped for Newport, to observe the year's class debate a series of problems submitted to them by the Board. These “Summer Conferences” provided much of the War College's value to the U.S. Navy. For a brief time in 1910-11, the Naval War College was responsible for developing the war plan itself, but that proved to be beyond the College's capabilities.⁶⁴

⁶⁰ The number 48 also allowed the General Board to name a battleship after all 45 states and the three territories obviously en route to statehood. As Daniels's correspondence shows, there was great interest amongst civic organizations and state politicians to have a battleship named after their state. Still, the General Board went to absurd lengths to hide the obvious source of the 48-battleship target. See, for example, Bradley Fiske's testimony in front of the House Committee on Naval Affairs, December 8, 1914, pp. 1048-50, which reads like nothing more than an improvised “Who's on First?”

⁶¹ General Board memorandum No. 420, October 17, 1903, RG 80, E 281, File 420-2, NARA Washington, 1-6.

⁶² Norman Friedman, *U.S. Battleships* (London: Arms and Armour, 1986), 7.

⁶³ Spector, *Admiral of the New Empire*, 140-2.

⁶⁴ Miller, *War Plan Orange*, 80-1.

In many ways, the U.S. Navy managed to overcome this ramshackle structure in the early twentieth century. While these disparate loci of power threatened to make the Navy ungovernable, the common background and training of naval officers conspired to ensure that the U.S. Navy made steady progress towards its goal of a large battleship fleet. The Naval War College, though not a formal part of the decision-making apparatus played a key role here. By giving the College problems to consider, and taking those suggestions seriously, the General Board ensured that their deliberations had input from a variety of officers representing a wide swath of the Navy.

Like the RN War College, the American War College did some work on war plans for the present and near future, but the War College's real planning value came from its more speculative endeavors. Detailed war plans could hardly be developed by the two-three dozen officers in each year's class over their short summer course, and the handful of permanent officers were no more competent for that task. On the other hand, the Summer Conferences provided the General Board with general advice about force structure, warship design, and tactical doctrine, advice that the Board took into account in their deliberations. Likewise, the Board frequently commissioned studies or war games from the permanent staff to fill more immediate needs for expert analysis.

Many of the points made above will be extended in the following chapters. Still, they provide some sense of how both navies were intellectually and structurally situated in 1904. The major point is that the machinery of administration was incomplete in both countries: the

United States Navy possessed strong consultative organs, but little capacity to formulate strategy or change policy, even policies that required little to no civilian input. In the Royal Navy, on the other hand, the Admiralty Board was a strong decision-making body, but lacked support and personnel with the intellectual capacity to think through the big questions of strategy and policy. Both the NID and the RN War College could provide operational suggestions, but were culturally and organizationally incapable of providing advice on larger, long-term issues. Speaking very broadly, the two services' approaches to administration and planning can be described as acting without thinking and thinking without acting.

CHAPTER 2: “ARMED SPEED”

If one had asked a naval officer at the turn of the century what the next advance in warship design would be, they almost certainly would have pointed to the development of an all-big-gun battleship, which promised increased firepower, especially at long ranges.¹ Credit for actually developing the first all-big-gun ship can go either to the United States, which had a design approved in March 1905, or the U.K., which had one under construction that September. Either way, development of the ships soon known as “dreadnoughts” was almost inevitable: the benefits to fire control and destructive capacity were simply obvious to many naval observers at the time. Long anticipated, HMS *Dreadnought*'s design could hardly be called a surprise.

In contrast, the development of HMS *Invincible* shocked naval opinion. There had been movement towards placing some large-caliber guns on armored cruisers, but actual work in that direction was not terribly advanced outside of Japan when *Invincible*'s characteristics were unveiled in late 1906. Their firepower made the three British cruisers a much greater menace to their foreign counterparts than *Dreadnought*, which would face foreign battleships already ostensibly armored against 12” fire. It is no surprise, then, that *Invincible*'s construction was tied far more to Admiral Fisher's idiosyncratic version of warfare than a neutral reading of trends in naval design. Taken together with Britain's lead in

¹ The two most commonly cited predecessors to the dreadnought shift are the Italian warship designer Vittorio Cuniberti's essay in the 1903 edition of Jane's *Fighting Ships* and the American Lt.Cmdr. Homer C. Poundstone's articles in *Proceedings of the United States Naval Institute*, especially “Size of Battleships for U.S. Navy” from the March 1903 issue.

logistics and shipbuilding capacity, the two new designs cemented the Royal Navy's material superiority over other navies.

The United States, on the other hand, was at the forefront of naval thought. Alfred Thayer Mahan's writings—critical to the development of the Japanese and German navies—helped to give the U.S. officer corps an overarching strategic ideology. At the same time, the early development and importance of the U.S. Naval War College ensured that naval debate and discussion in the United States was of very high quality. Though the ideas developed at Newport were not always accepted by the Navy's leadership, the U.S. Navy of the day had many officers accustomed to contemplating the abstract and intellectual side of their profession. To that end, American officers had been discussing and debating the issues surrounding all-big-gun ships at length since at least 1901.² Based on those discussions, the General Board had started preliminary work on an all-big-gun battleship in January 1904.³

The years 1904-1907 highlight some of the sharpest distinctions between the American and British navies. While the Royal Navy quickly put Fisher's designs into effect, American warship production lagged. American officers independently developed all-big-gun battleship designs (some, though not all, with speed similar to *Dreadnought*), and a type of fast battleship/heavy cruiser comparable to *Invincible*. In neither case, however, did the United States Navy lead the way in building such ships, hamstrung by an organization and decision-making process inimical to rapid change.

² Norman Friedman, *U.S. Battleships: An Illustrated Design History* (London: Arms and Armour, 1986), 51-3.

³ Ronald Spector, *Admiral of the New Empire: The Life and Career of George Dewey* (Baton Rouge: Louisiana State University Press, 1974), 175.

Admiral Fisher came into office in October 1904 with plans to reorganize the fundamentals of British naval policy. Indeed, Fisher had been selected for the role in large part because of his promise to reduce naval spending. Rather than basing the Royal Navy's strength on fleets of battleships, stationed around the world, Fisher proposed scrapping a large part of the fleet, and protecting trade and the Empire with a relative handful of swift armored cruisers, supplemented by smaller, torpedo-armed warships and submarines for point defense in critical European waters like the Mediterranean and North Seas. In addition to reducing spending, Fisher felt that these policies would best suit rapidly maturing technologies like torpedoes, the submarine, and long-range naval artillery.⁴

Fisher's preference for armored cruisers was not new. His preference for high speed and long-range fire can be traced as far back as 1882, while in captain of the then-new battleship *Invincible*.⁵ While commanding the Mediterranean Fleet from 1899-1902, his ideas matured into something like the ones he would bring to the Admiralty. In documents from his Mediterranean days, Fisher asserted the utility of high speed in battleships and cruisers, in forcing weaker fleets to fight. He also developed an appreciation for the value of long-range fire (then reckoned at 3-4,000 yards) once battle was joined.⁶

In 1903, while commanding the Portsmouth Dockyard, his last assignment before becoming First Sea Lord, he laid out his thinking to a group of civilian visitors:

Size is everything, because in the first place it gives us the first desideratum, which is speed. Speed comes before *all* qualities, both for strategical as well as tactical

⁴ The portrayal of Fisher's policies presented here is largely taken from Sumida's *In Defence of Naval Supremacy* and Nicholas Lambert's *Sir John Fisher's Naval Revolution* (Columbia: South Carolina, 1999).

⁵ Sumida, *Defence*, 38.

⁶ Sumida, *Defence*, 41-4.

reasons. . . . It enables you to evade or bring on battle. It enables you to take up the most advantageous tactical position. It increases coal endurance, because the higher the maximum speed, the higher the economical speed.⁷

The best fit for these qualities at Portsmouth was not a battleship, but *King Alfred*, a 23-knot armored cruiser nearing completion in the yard. Armored cruisers were, he claimed, like armadillos set against ants when arrayed against smaller cruisers and destroyers.⁸

These attitudes were elaborated in memoranda Fisher wrote over the second half of 1904 in preparation for assuming his First Sea Lord duties. The documents, collected soon after his installation and dubbed *Naval Necessities*, provide crucial insight into Fisher's initial plans for the Admiralty. In addition, the collected memoranda reproduced marginalia from First Lord Selborne, which highlight the limits of what he was able to accomplish. Fisher's suggestions touched on almost all areas of naval administration and policy, but the most radical were his suggestions for new warship construction, which would reduce the types of ship built for the Royal Navy to four: a battleship, an armored cruiser, a destroyer, and a submarine.

The battleship, which Fisher dubbed "Untakeable," was to have 20 knots' speed, and sixteen 10" guns. Though smaller than the 12" standard on recent battleships, sixteen guns represented four times as many large guns as contemporary battleships carried. At the same time, their much higher rate of fire would enable them, Fisher estimated, to send half again as much weight of projectile at enemy ships over the course of an engagement.⁹ Though 12" shells could obviously penetrate heavier armor, Fisher predicted that opposing warships "would be so wrecked, demoralized, and put out of trim," by 10" fire on exposed works and

⁷ Fisher, "Chief Points of Interest," CBT/12/131, Caird Library, National Maritime Museum, Greenwich, UK, 3.

⁸ Fisher, "Chief Points of Interest," 3.

⁹ Sumida, *Defence*, 53.

unarmored portions of the hull that armor piercing would not be necessary.¹⁰

At the heart of his scheme was the armored cruiser “Unapproachable,” a 25-knot vessel with sixteen guns of the slightly smaller 9.2” caliber. The weight saved in the reduced firepower and the traditional lighter cruiser armor gave this ship five knots’ extra speed, and speed was the “first desideratum” of the sort of naval war Fisher wanted to fight. At any rate, 9.2” guns were sufficient for fighting other armored cruisers, their intended quarry.¹¹ Despite the slight differences in firepower, and the rather larger differences in speed and armor, these ships were projected to be the same weight, about 16,000 tons, and bore a greater similarity to each other than the typical difference between cruisers and battleships.¹² This was no accident; Fisher believed that armored cruisers were the capital ship of the future, and that battleship construction would eventually be halted in favor of cruisers in the near future.¹³

Ironically, the key quality that made his armored cruiser a *battlecruiser*, its 12” guns, was not Fisher’s idea, but suggested by a group of seven informal advisors, who had helped him shape his thoughts in the months leading up to his installation.¹⁴ Fisher’s initial comments about fire control in the *Naval Necessities* documents betray a lack of familiarity with the new practice in the Royal Navy, sparked by the development of continuous-aim fire by Captain Percy Scott and salvo fire by officers in the Mediterranean Fleet. To summarize a

¹⁰ Fisher, “The Guns of the Battleship and Armored Cruiser,” in *Naval Necessities*, Vol I., Spring-Summer 1904, 4.

¹¹ Fisher, *Naval Necessities I*, 62.

¹² Fisher, *Naval Necessities I*, 2.

¹³ Fisher, *Naval Necessities I*, 57.

¹⁴ This was a very distinguished group of seven men, five of them sailors, which included three future First Sea Lords (then-Captains Henry B. Jackson, John Jellicoe, and Charles Madden) and the brilliant Reginald Bacon, as well as the chief naval designer at Portsmouth, W.H. Gard. Sumida, *Defence*, 67.

very complex issue, advances in gunlaying and fire control promised greatly improved accuracy at the cost of some rapidity of fire. With those advances, larger guns with heavier shells were more useful than lighter guns that could be fired faster.¹⁵

By the time he entered office in late October, Fisher had become convinced that his battleship would need 12” guns. For a time, he persisted in pursuing 9.2” guns for his armored cruiser, but his advisory group would eventually change his stance. According to Reginald Bacon, one of those advisors, soon after he took office, they convinced Fisher to put 12” guns on the cruiser designs as well, so that they could use their guns to batter battleships in a fleet action. They argued that a squadron or two of fast armored cruisers could flit around the ends of an enemy battle line, and attack those battleships from an advantageous position.¹⁶

These same men dominated the Committee on Designs, a group that Fisher convinced Selborne to appoint in order to consider his new warship ideas. This 14-member panel included six of the seven members of Fisher’s group of advisors and Fisher himself as a non-voting chair.¹⁷ Unsurprisingly, the Committee looked favorably on Fisher’s new designs, although Fisher was only able to convince one member, the eminent scientist Lord Kelvin, to

¹⁵ Sumida, *Defence*, 48-51.

¹⁶ Admiral Reginald Bacon, *The Life of Lord Fisher of Kilverstone*, Volume I (Garden City, NY: Doubleday, Doran, & Co., 1929), 256. Bacon, of course, was one of Fisher’s advisors. This is one of the earliest examples of close associates of Fisher dragging his ideas closer to the mainstream. The reasoning of his advisors here was sound, if we ignore the fact that Fisher thought that battles fought between lines of battleships would soon become obsolete due to increased torpedo accuracy and lethality. The addition of 12” guns did nothing to change their utility for Fisher’s preferred operational concepts, but they added a new, somewhat unanticipated mission to the idea. Bacon’s account emphasizes that battlecruisers were not intended to engage battleships unless those battleships were themselves already engaged, which sounds suspiciously like post-Jutland retrofitting.

¹⁷ Sumida, *Defence*, 54.

drop battleships altogether.¹⁸ The main impact of the Committee was to settle on the form of the new warships; Fisher's descriptions had not specified major design issues like the arrangement of the guns or the internal layout of the vessels, and they debated several different designs produced to Fisher's pattern.¹⁹

On the other hand, the Committee was not purely a rubber stamp body. Their report shows that the naval members held rather more conventional views on strategy and operations than Fisher. The section discussing the design and specifications of the eventual *Dreadnought* was far longer (5.5 vs. 1.5 pages) than the discussion of the armored cruiser designs, an inversion of the importance Fisher placed on the respective designs.²⁰ Likewise, the Committee's final report announced that the cruisers were "in reality, fast battleships," suggesting something of the duties more conventional naval officers envisaged for them.²¹ When the dust settled, the Royal Navy committed itself to build four new capital ships, HMS *Dreadnought*, and three of the new armored cruisers: *Invincible*, *Inflexible*, and *Indomitable*. Although the imbalance in numbers may seem like a victory for Fisher, the preexisting construction schedule for the Royal Navy already called for three armored cruisers and one battleship to be started in 1905-06.²²

The primary differences between the two designs and their predecessors lay in firepower and speed, Fisher's preferred attributes; armor remained effectively unchanged:

¹⁸ Sumida, *Defence*, 55-6.

¹⁹ *Report of the Committee on Designs, 1905* (London: His Majesty's Stationary Office, 1905), RIC/4/2/1, NMM.

²⁰ *Committee on Designs*, 26-34.

²¹ *Committee on Designs* 20-1.

²² Sumida, *Defence*, 55.

	<i>Lord Nelson</i>	<i>Dreadnought</i>	<i>Minotaur</i>	<i>Invincible</i>
Speed (kts)	18	21	23	25
Main Battery	4x12"	10x12"	4x9.2"	8x12"
Armor (in): Belt	12	11	6	6
Deck	1.5	3	2	2.5
Turrets	12	11	7	10
Barbettes	12	11	8	7

Viewed against *Lord Nelson*, the Committee's claim that the *Invincibles* were effectively fast battleships is easy to understand.²³ After all, the new armored cruisers mounted twice as many heavy guns as extant battleships. If used to cap the head or harry the rear of an enemy battle line, an *Invincible* could potentially bring six of its guns to bear against two of a battleship's at long ranges. Even beyond the firepower imbalance, the four guns of a pre-dreadnought battleship provided insufficient ranging data for truly accurate long-range fire under the new control systems coming into vogue. Whatever Fisher's intentions, his new armored cruisers could certainly fulfill a fast battleship role against fleets of pre-dreadnought warships.

Whatever their function, the new ships were the product of Fisher's initiative, rather than the considered opinion of the Admiralty. Although the Admiralty Board assented to the new designs, the legwork in conceptualizing and designing the ships took place outside of the regular structure for making such decisions. Fisher was not the only Senior Naval Lord (to

²³ Fisher's feelings on the matter are somewhat more difficult to lay out. There is no doubt that Fisher believed his ships *could* fight battleships successfully, especially against pre-dreadnoughts that lacked the capacity for effective long-range fire. That, however, is not the same as saying that Fisher *intended* to have them do so. His mature strategic plans as First Sea Lord suggest that they were not, but by that time, it was clear that dreadnought battleship construction could not be halted. Similarly, Fisher deprecated the value of armor against large-caliber rounds. Viewed in that light, battlecruisers were an ideal platform, freed from the heavy armor that sapped battleships' speed. This question becomes more than academic when asked after the First World War, where they were used in combat against German battleships and battlecruisers, to ill effect.

use the older term) to utilize special committees for decision-making, but they became even more prominent during his time in Whitehall. In some ways, they served as a substitute to a staff system, which Fisher consistently opposed. This substitute ensured that Fisher, not the First Lord or the Board, were at the center of Admiralty policymaking. Unlike a staff, these committees “could be evanescent, even when they appeared to be standing bodies.”²⁴

Fisher’s construction policy was not only boosted by his adroit manipulation of Admiralty administration. Outside of the Admiralty, news from the Russo-Japanese War also supported the form of Fisher’s new cruisers, though not necessarily his thinking concerning their future employment. By virtue of their alliance, the British had a number of attaches embedded with the Japanese Navy in their ongoing war with Russia. The dispatches, which started to reach Whitehall in mid-1904, boosted the case for heavy guns, and showed that the Japanese had independently developed something like the battlecruiser formula. Even better, the Japanese idea came in the context of the prevailing pre-dreadnought model, so the foreign ship simultaneously confirmed Fisher’s initial insight and ensured that *Invincible*, when built, would definitely be the world’s most powerful cruiser by some distance.

According to the attaché reports, wartime experience led Japan to consider a new cruiser design (eventually to become the *Tsukuba*-class) of 12,000 tons and 21 knots, with the same armament as the next class of Japanese battleships.²⁵ Another report relayed that the new battlecruisers were to have a 12-inch main battery, although it would retain the

²⁴ C.I. Hamilton, *The Making of the Modern Admiralty: British Naval Policy-Making 1805-1927* (Cambridge, UK: Cambridge University Press, 2011), 215-18.

²⁵ “The Russo Japanese War. Reports from Naval Attaches, &c. Volume III,” July 1905, ADM 21/44, TNA, 36-7. Depending on when the reports were actually written, their chronology may be off; *Tsukuba* was laid down in January 1905.

secondary battery.²⁶ Unsurprisingly, then, the initial report on the new cruisers warned that they “will not only be able to beat most battleships in a fight, but will be fast enough to run down . . . any warship now afloat,” an coincidental summation of Fisher’s own opinion of his new battlecruisers.²⁷

The reports from Japan regarding long-range fire also lent empirical support to the decisions arrived at by Fisher and the Committee on Designs. Although long-range fire (distances of up to eight miles) in the war to date remained highly inaccurate, the attaché nevertheless stressed that “a single well-placed shot of large caliber can produce . . . blows of great force.”²⁸ For example, the starboard bow of *Mikasa*, the Japanese fleet flagship, was “shattered” on August 10, 1904 at a range of 13-14,000 yards despite the 7” armor in that section. The report suggested that the steeper angles of descent at long ranges were to blame, and that the thick vertical armor of extant warships was not up to the task of stopping long-range fire at those angles.²⁹

Had Fisher been inclined to listen, the news relayed from Japan would have been sobering. The 7” armor pierced by a Russian shell—not the thickest on *Mikasa*’s 9” main belt—was only half that of the 14” armor protecting the guns and ammunition in the barbettes and the critical personnel in the conning tower. In contrast, apart from 10” armor on its conning tower, 7” was the thickest armor installed on the *Invincible*, protecting only its

²⁶ “Reports, Volume III,” 71-2.

²⁷ “Reports, Volume III,” 37.

²⁸ “Reports, Volume III,” 46.

²⁹ “Reports, Volume III,” 46.

turrets and barbettes.³⁰ *Invincible* may have been superior to extant battleships, but even at the ranges implied by Fisher's focus on long-range gunnery, a pre-dreadnought was more than capable of disabling or destroying it with a single lucky shot. Fisher was fond of pronouncements to the effect that the speed of battlecruiser was their armor, but even at this early date, empirical evidence showed just how risky this assumption might be. Even if increased speed made hits less likely, the possible effects of a single hit with a modern 12" gun could be catastrophic if it hit the wrong place. The potential dangers increased if, as Fisher knew they would, foreign navies began to construct dreadnoughts of their own.

Even before the Russo-Japanese War, American officers had undertaken serious discussions about all-big-gun battleships and modified armored cruiser designs. Both ideas had come up in the 1903 Summer Conference and met with some support. A special committee of the Conference suggested that future American battleships should be built with a uniform battery of heavy guns.³¹ Although the suggestion did not make it into the official Conference report, the War College staff did send a memorandum on the issue to its president, noting that the 8" intermediate battery of the newest American battleships, the *Connecticut*-class, were incapable of penetrating battleship armor at ranges above 3,000 yards. Given that the newest torpedoes had a range of 4,000 yards, the prospect of future

³⁰ Philip Watts, "*Invincible*: New Armoured Cruiser Design Building Drawings," June 22, 1905, ADM 116/1012, TNA.

³¹ Cpt. E.D. Taussing, "Battleship Design from a Battle Standpoint," in "Tactics Report of a Special Committee," August 21, 1903, RG 12, Volume 9: 1903 Summer Conference, Naval Historical Collection, Naval War College, Newport, RI.

combat within the 8” gun’s effective range seemed remote.³²

Likewise, many members of the Conference were unhappy with the current pattern of armored cruiser. One officer referred to them as “fast lightly armed and protected battleships.” Judged by that standard, they were deficient.³³ Although they were “the highest type of scouting ship,” their expense, large complements, and inability to fight battleships made them “impractical to maintain . . . in sufficient numbers.”³⁴ A number of officers suggested a hybrid between battleships and cruisers that could fulfill the cruiser role, while maintaining greater utility in battle. As laid out by the Naval War College staff after the conference, this ship would have a battleship’s size and armor, with four 12” guns, perhaps eight. Like in their ideal battleship, the intermediate battery of this ships was to be removed, and the weight saved given over to engines. It was hoped that these changes could produce a ship of about 22 knots, just as fast as contemporary armored cruisers. Such a ship “could do any duty that the armored cruiser is designed for, and be a worthy addition to the battle line.”³⁵

These ideas were carried over into the 1904 Conference. Noting that most damage in the Russo-Japanese War had been inflicted by large-caliber guns, the entire Conference enthusiastically endorsed a report calling for a new battleship with ten or twelve 12” guns and no intermediate battery.”³⁶ The Conference’s ideas would be incorporated in the *South*

³² NWC Staff, “Considerations as to the Advisability of Suppressing the Intermediate Battery of Battleships,” November 23, 1903, RG 12, Vol. 9, NHC.

³³ Lt. Cmdr. William L. Rodgers, “Tactical Study of the Black Fleet: ‘E’ of Report of Tactical Committee, 1903,” RG 8, Box 12, Folder 14, NHC, 3.

³⁴ 1903 Summer Conference, “Supplementary Information,” RG 12, Vol. 9, NHC, 50.

³⁵ “Considerations,” 75-6.

³⁶ 1904 Summer Conference, “Question 35,” Summer 1904 RG 12, Vol. 10, NHC, 34-6.

Carolina class, the U.S. Navy's first all-big-gun battleships, in the Navy's 1905-06 program.³⁷ The 1904 Conference also endorsed a four 12" gun standard for cruisers based on the 1903 ideas.³⁸ The Summer Conferences in 1905 and 1906 also adopted similar language, but the "reciprocal," as the design became known in later years, never caught the fancy of the Navy's leadership.³⁹

These discussions at Newport highlight the U.S. Navy's biases in favor of firepower and armor, and their comparative neglect of speed. Summer Conference attendees expressed concern about the firepower of American battleships, but were content to stand pat on the 18-19 knot speed of extant battleships. This attitude led, in early 1905, to the semi-dreadnoughts of the *South Carolina*-class, all-big-gun ships with 18.5-knot speed. Likewise, their proposals for armored cruisers were intended to bring cruiser firepower and armor standards up to those of battleships. Speed, the major characteristic of armored cruisers, was untouched. Essentially, these abortive plans were intended to make cruisers into better battleships without improving their cruiser qualities. As strange as that might seem, it was in keeping with the U.S. Navy's Mahanian emphasis on battle, if a ship that could stand in line could also adequately scout, it would be a boon for the Navy's fleet action focus.

American officers did more than turn inward for new ideas, though. As the 1904 Conference showed, the U.S. Navy was keeping a close eye on developments abroad, especially the Russo-Japanese War, albeit at some distance. Neither the Russian nor the Japanese Navies had especially cordial relations with the U.S. Navy, and there was a lack of

³⁷ Friedman, *U.S. Battleships*, 53-5.

³⁸ "Question 40," Summer 1904, RG 12, Vol. 10, NHC, 68.

³⁹ After the unveiling of *Invincible*, the NWC design was dubbed the "reciprocal" because, while *Invincible* emphasized speed over armor, the American idea kept battleship-grade armor at the cost of some potential speed.

accurate, operational information reaching the U.S. before the war's end. On the other hand, at least one American officer, Lieutenant Commander William Sims, enjoyed almost unfettered access to the Royal Navy, based in part on his relationship with Percy Scott, who was promoted to rear admiral in early 1905. In fact, Sims visited with Scott and other British officers while in Britain in the summer of 1905 on a fact finding mission, as part of his duties as Inspector of Target Practice, and President Roosevelt's personal naval advisor. Already something of an outlier amongst his peers, Sims clearly imbibed some of his British friends' opinions. Upon his return, he expressed views on armored cruisers that were in disagreement with the American consensus at the time.

In a July 25 letter to Roosevelt, Sims declared the trip a success in terms of new information on gunnery, but also related that he had "obtained certain information . . . of great importance in connection with the design of battleships."⁴⁰ That information was nothing less than the basic parameters of HMS *Dreadnought*, which Sims referred to as "DEVASTATION," a ship with "ten or twelve 12-inch guns and having a speed of 20 knots." He also came back firmly in the uniform battery camp, claiming that there was "no difference of opinion" within the Royal Navy on the advisability of a uniform battery for battleships, as opposed to the all-big-gun ships requested by the General Board the previous year, which initially had a mix of 10 and 12" guns.⁴¹

In a subsequent report on the trip written up for the Office of Naval Intelligence, Sims went into more detail on the subject of guns, highlighting the difficulties inherent in managing "heavy guns of nearly the same caliber." Those mixed batteries lengthened the spotting and aiming time for both types of gun, negating any possible advantage in loading

⁴⁰ William S. Sims, Letter to Roosevelt, July 25, 1905, Box 96, William Sowden Sims Papers, Manuscript Room, Library of Congress, Washington, D.C.

⁴¹ Sims, Letter to Roosevelt.

time from slightly smaller shells. Instead, he argued, a *uniform* battery for subsequent America vessels was necessary to allow for the “maximum possible hitting power;” the greatest combination of accuracy and rapidity possible.⁴² At the same time, as he explained in a later letter, with battleship armor ideally proof against intermediate battery, a duel between a new uniform battery ship and the extant type would rely on the ten or so 12” guns of the new ship against the four of the old.⁴³

Sims’s trip also influenced his opinions on cruiser design. Some months after his return to the U.S., he laid out his ideal armored cruiser for President Roosevelt, a ship so similar to Fisher’s original “Unapproachable” that one wonders if one of his British contacts gave him a chance to glance at a copy of *Naval Necessities* while abroad. His opinions on uniform battery battleships were avant-garde in America, but hardly rare. His desire for a 23-knot cruiser armed with “heavy turret guns of uniform caliber,” preferably of 10-inches, marked him as something of a maverick; by mid-1905, the opinion in the U.S. Navy was very much in favor of abolishing armored cruisers altogether instead of redesigning the type.

Sims’s depiction of the state of affairs in Britain was perhaps overblown. There was certainly no unanimity within the Royal Navy on the all-big-gun ships or the excess speed of the *Dreadnought*. At the same time, Sims’s conclusions did reflect the fact that the most extreme reformers were in charge at the Admiralty. Sims’s friend, Scott, in Whitehall on the express wishes of Fisher, was very much part of this cabal, and an officer in Scott’s position would have been able to give Sims the sensitive information he returned with. Certainly, the opinions expressed by Sims after his return from Britain very closely followed those

⁴² Sims, “Report of Gunnery Information Obtained During a Visit to England,” June 1905, Box 96, Sims Papers.

⁴³ Sims, Letter to Roosevelt, September 1, 1905, Box 96, Sims Papers.

expressed by Fisher though not, perhaps, the Royal Navy's most closely guarded secret: the specific details of the yet-to-be-constructed *Invincible*.

Sims, however, with his connections in the Royal Navy was somewhat unique in the U.S. Navy. For almost all of the American naval intelligentsia the most important developments were taking place not across the Atlantic, but on the other side of the Pacific in East Asia. Here, the discourse reflected the ongoing American debates internal to the U.S. Navy. The main vehicle for these discussions, the United States Naval Institute's *Proceedings* journal had intermittently covered the war, and in the months after Tsushima, it ran a number of articles on that particular battle, written by officers of impeccable repute, including the Director of Naval Intelligence, Seaton Schroeder, and Mahan himself.

Even before Tsushima, though, *Proceedings* published a remarkable article by Commander Bradley A. Fiske, one of the navy's most prominent thinkers, and an eventual Aide for Operations, a post that was later expanded into the modern Chief of Naval Operations. Like Sims, Fiske was considered very much in the avant-garde of naval thought, however Fiske lacked Sims's contacts in England, and his work reflects a much "purer" strand of American thought, unleavened with foreign ideas. Fiske also possessed a rather forceful writing style, which gave his essays an extra punch.

In March 1905, even as the Admiralty was finalizing plans for their new ships, *Proceedings* published Fiske's "American Naval Policy," the prize-winning essay in its annual competition, a rather intemperate big-picture look at the role, composition, and strategy of the Navy that hammered at a number of shibboleths held by his brother officers. Foremost among them was his attack on Mahan's understanding of naval warfare and the purpose of a navy. According to Fiske, the notion that a nation's navy existed to protect trade

was a “British” idea, inapplicable to the mostly self-sufficient United States.⁴⁴ Fiske readily conceded that trade was important, but for him the *most* crucial role of the Navy was “to enforce the policy which is necessary to a country’s preservation,” a notion that Fiske defined rather aggressively. As a young country, the United States was inevitably bound to fight a series of wars to secure its place in the international pecking order.⁴⁵

In accord with his strategic thinking, Fiske also laid out his vision of the ideal “ship of the Battle-Fleet.” Unlike many of his American colleagues, Fiske argued that speed was the single most important factor for a battle fleet, claiming that in action, the faster fleet had the ability to initiate or refuse combat, pick its range, and maneuver itself into favorable firing positions. To accommodate the necessary machinery for high speed, and sufficient space for heavy armor and a uniform battery of twelve-inch guns, Fiske proposed that the American battleship of the future be “as large as the state of the engineering arts permits.”⁴⁶

Despite this attention lavished on speed, Fiske was rather skeptical of armored cruisers. As desirable as a high *fleet* speed was, the need for a higher-speed *ship* was less pressing. In his own words, the role of the armored cruiser was “not accurately defined . . . a notion seems to be held by a few officers that their particular combination . . . must result in something very valuable [because] they cost as much money as battleships.”⁴⁷ Perhaps, he conceded, if the U.S. Navy’s extant armored cruisers could be given more armor, then there might be a role for them. As they existed, however, they were only useful for commerce

⁴⁴ Cmdr. Bradley A. Fiske, “American Naval Policy,” *Proceedings*, March 1905, 4-5.

⁴⁵ Fiske, “Naval Policy,” 9-10.

⁴⁶ Fiske, “Naval Policy,” 36.

⁴⁷ Fiske, “Naval Policy,” 37.

protection, a negligible role for the U.S. Navy in the event of war.⁴⁸ Clearly then, building an armored cruiser was not worth the implicit sacrifice of a battleship, an attitude shared by most American officers at the time, and one that hamstrung development of battlecruisers in the U.S. Navy.

Fiske's discussion of armored cruisers was even more interesting for what it left out. His article did not even attempt to assess their use in pitched battle. He may have caricatured British armored cruisers as only of use in commerce protection, but in reality British practice at the time was to consider armored cruisers an integral part of the battle fleet, as officers like Fisher were doing before the turn of the century. Even more to the point, Admiral Togo and his Russian counterparts in East Asia were using their armored cruisers in squadrons attached to the battleship formations as a matter of course.

The essay was also the subject of commentary from several intellectually active officers in the same issue. Excluding some of the more narrow critiques of the piece, especially from constructors, the article was generally well received with most attention focused on Fiske's advocacy of offensive war, as well as the size and speed of his ideal battleships. As far as Fiske's worldview was concerned, several of the commenters noted that, while they broadly shared Fiske's commitment to a large navy, they found his extreme bellicosity distasteful. Indeed, in their eyes, the U.S. Navy's role was to be so strong as to prevent wars rather than courting them.⁴⁹

The speed and size issues proved more contentious. Philip Alger, the journal's editor, argued that although Fiske was entirely correct on the need for all-big-gun battleships, his

⁴⁸ Fiske, "Naval Policy," 38.

⁴⁹ "Discussion," *Proceedings*, March 1905, 179-198.

focus on size was misplaced. Instead, Alger advocated a larger number of smaller ships. Although he did not say so explicitly, such a fleet would be quite a bit slower than Fiske's ideal, with individual ships lacking the space for the boilers and engines necessary to produce a speedy battleship.⁵⁰ Lieutenant-Commander W. Irving Chambers, an expert on battleship design, generally agreed with Alger's although he explicitly dealt with the speed issue, claiming that it would result in "too great a sacrifice of other essential qualities," especially considering that Chambers felt that Fiske's proposed ship would be too big to fit in most American ports.⁵¹

In contrast, Captain C.H. Stockton agreed entirely with Fiske on battleship speed, calling it "refreshing and stimulating" to read such full-throated advocacy.⁵² Specifically, Stockton related that foreign observers had long considered speed to be a major flaw in American battleship designs. He expressed the hope that Fiske's ships would render armored cruisers superfluous. With this newfound speed, Stockton claimed that American vessels would be well placed to dominate combat at the longer ranges that a uniform battery would allow.

Fiske's article obviously struck a nerve, and in the next issue of *Proceedings*, there was another fifteen pages of commentary on Fiske's article. The previous issue's respondents had been picked experts on the issues Fiske brought up in his piece, but the new discussion section was more akin to the "letters to the editor" section of a magazine than a symposium of experts. Still, although the new respondents were less eminent, their responses, four out of

⁵⁰ "Discussion," 180-1.

⁵¹ "Discussion," 183.

⁵² "Discussion," 195-6.

five positive, provide some sense of what ordinary officers were thinking, although they brought up nothing that had not been mentioned already.⁵³

At any rate, both Fiske and Alger felt that there was more to say, because in September *Proceedings* published Fiske's "Compromiseless Ships," a short defense of his ideal battleship. After some remarks on its technical feasibility, and dismissing concerns about Congress's willingness to fund such a ship, he turned to the real obstacle in his way: Mahan. Quoting Mahan's immediate response to Tsushima in *Collier's Weekly*, Fiske noted that the great man felt as if the battle justified his theory of numbers counting for more than individually powerful ships. This position that favored large numbers of smaller battleships over small numbers of larger battleships, the fleet with a larger number of smaller vessels being more "flexible," a position Fiske found unconvincing.⁵⁴ While he conceded that more ships might be useful for preventing escape and overcoming "feeble resistance," he thought it necessary to concentrate as much power into as few ships as possible when facing a strong enemy.⁵⁵

After Fiske's article, the focus of *Proceedings* shifted to debate over the Battle of Tsushima, rather than hypothetical designs. Although the journal would not carry a detailed piece on the Battle of Tsushima until December, once it did, the battle would dominate the journal for the next year, with five articles published in the next four issues through the end of 1906. Within the Navy, the debate morphed into one on battleship design, with the battle itself assuming a secondary importance. Most officers strove to "claim" the lessons of battle

⁵³ "Discussion," *Proceedings*, June 1905, 463-478

⁵⁴ Bradley Fiske, "Compromiseless Ships," *Proceedings*, September 1905, 552.

⁵⁵ Fiske, "Compromiseless Ships, 552.

for or against the “all-big-gun” battleship. Armored cruisers on the other hand, although in Togo’s line of battle, proved to be less contentious: everyone seemed to agree that they were pointless.

That December issue of *Proceedings* carried two articles on the war, one written by Fiske, clearly marking himself out as a rising star in the Navy’s intellectual elite, and another written by Captain Richard Wainwright, a former Naval Academy Superintendent and chief of Naval Intelligence. As Wainwright noted, much of the immediate commentary on the battle was written before reliable accounts were available, and the analysis was of a cursory, rushed, nature. After the publication of Togo’s after action report, though, there was enough information available for the sort of technical and detailed analysis that was a hallmark of *Proceedings*. Fiske’s article, “Why Togo Won,” was primarily concerned with issues of training, but Wainwright’s “The Battle of the Sea of Japan,” went further into material factors.

From the start of his piece, Wainwright discounted the Japanese armored cruisers. While conceding that they performed well in the battle, he claimed that this was due to the poor training and morale of the Russian sailors. Against a competent foe, the Japanese armored cruisers would have been the first target of the Russian fleet and driven off before the action began in earnest.⁵⁶ Instead, Wainwright, like many of his peers, preferred a speedy battleship to a mixture of slow battleships and fast armored cruisers.

When combined with the heavy long-range fire promised by the *Dreadnought*, Wainwright found speed especially useful. Not only could a ship of the dreadnought-type maneuver into a favorable firing position, but it could also place itself out of range of its

⁵⁶ Captain Richard Wainwright, “The Battle of the Sea of Japan,” *Proceedings*, December 1905, 797-8.

enemy's intermediate guns, essentially restricting an enemy vessel to its four heavy guns.⁵⁷ Indeed, Wainwright argued that speed in all its facets—"Speed in the ships, speed in making combinations, speed in making signals, and above all speed in making hits"—were the keys to modern warfare. Still, as his analysis makes clear, the speedy ships were to be battleships. Ships with *only* speed, like the armored cruisers, he saw as comparatively useless in a major engagement.

In the next issue, Captain Seaton Schroeder, the Director of Naval Intelligence and an *ex officio* General Board member, weighed in with his "Gleanings from the Sea of Japan," an honorable mention essay in the annual essay competition (the first prize went to a piece on promotion reform). As one might expect from such an essay, written by a very important officer, Schroeder's piece punted on the contentious issues of battleship design. He acknowledged the importance of speed, and the importance of all-big-gun ships, but unlike Wainwright and Fiske, Schroeder was unwilling to endorse the larger battlewagons, coming to the somewhat tepid conclusion that, pending more information, smaller battleships seem to have more utility than their larger cousins.⁵⁸

On the subject of armored cruisers, however, Schroeder's conclusions, and language, were far less temperate. Schroeder noted, as many observers did, that both the Japanese and Russian fleets used their armored cruisers as an integral part of the battle line, a role that made little use of their speed and made their light armor and guns a severe liability. While most Japanese, and many British commentators took this as an endorsement of the type's

⁵⁷ Wainwright, "Sea of Japan," 800-3. Like all pre-Dreadnought battleships, Togo's battleships carried a number of smaller guns in addition to its 12" main battery (Togo's flagship *Mikasa*, for example, carried fourteen 6-inch guns as well as twenty 12-pounders, six 3-pounders, and six 2.5-pounders). All had shorter effective ranges than the largest guns carried.

⁵⁸ Captain Seaton Schroeder, "Gleanings from the Sea of Japan," *Proceedings*, March 1906, 76-88.

robustness, to Schroeder, the battle proved that armored cruisers were an unnecessary luxury. In his words, “throughout this entire war, the armored cruiser has failed to justify its existence,” a stance that most American officers endorsed.⁵⁹

Finally, in June Mahan himself weighed in on the battle. “Reflections, Historic and Other, Suggested by the Battle of the Japan Sea” was, in a sense, a narrative of the battle, but by then Tsushima was a year old, and at the heart of the essay was Mahan’s interpretation of the battle’s impact on future developments. Specifically, Mahan’s article was an attack on the very idea of dreadnought battleships and, by implication, battlecruisers. The new ships were, he argued, indicative of “a simple trust in bigness . . . an absence of trust in anything but bigness.”⁶⁰

As we have seen, “bigness” gave *Dreadnought* some measure of firepower and speed over its predecessors, qualities that Mahan depreciated. In his reading of the battle, the fire of the Japanese heavy guns was not the key weapon of destruction. Instead, he argued that the smaller guns of the Japanese fleet’s “so called ‘secondary battery’” proved decisive because of its effect on Russian *personnel*, the real target. At the same time, the rapid-firing secondary battery also gave a greater number of hits. Even if, as Mahan conceded, the secondary battery was unable to penetrate the heaviest battleship armor, there were still crucial targets like the bridge and especially funnels that remained more or less unarmored.⁶¹ Mahan also argued that speed, while potentially valuable, was of subordinate importance in the design of battleships. Not only did constant increases in battleship speed result in “the

⁵⁹ Schroeder, “Gleanings,” 91-2.

⁶⁰ Mahan, “Reflections, Historic and Other, Suggested by the Battle of the Japan Sea,” *Proceedings*, June 1906, 462.

⁶¹ Mahan, “Reflections,” 460.

premature antiquating of good vessels,” but dramatic increases in speed could only be achieved by a dramatic increase in size—“a trust in bigness”—or by adding engines in lieu of guns. Neither option was acceptable to Mahan.⁶²

Taken together, Mahan correctly surmised that these two trends—towards heavier batteries and faster ships—pointed towards a future of long-range actions, a position he found logically sound but empirically suspect. Indeed, he called seeking long-range engagements “a system which has never worked historically,” and one associated with weaker fleets concerned with retreat, not stronger fleets looking to defeat, destroy, or disable a foe.⁶³ At the same time, fleets of battleships designed around these principles would be far more expensive than their predecessors, robbing navies of the critical impact of numbers in future wars.⁶⁴

Lastly, Mahan turned his attention to cruisers, a class of ship he marked by “speed and coal endurance,” as opposed to the armor and firepower that defined battleships.⁶⁵ For these ships, then, any “unnecessary” increase in firepower or armor above the bare minimum was akin to high speed in battleships. As Mahan put it, the term “armored cruiser” was as oxymoronic as “heavy light cavalry.”⁶⁶ “Reflections” appears to have been written before Mahan gained any specific knowledge about the new armored cruisers building in Britain, but it is obvious that Mahan’s arguments against “traditional” armored cruisers counted for even more against armored cruisers armed with battleship-sized guns.

⁶² Mahan, “Reflections,” 461.

⁶³ Mahan, “Reflections,” 470.

⁶⁴ Mahan, “Reflections,” 470.

⁶⁵ Mahan, “Reflections,” 471.

⁶⁶ Mahan, “Reflections,” 471.

Taken together, these four *Proceedings* articles do an excellent job of showing the state of the U.S. Navy's thought on new developments in design. All schools of thought in the United States agreed on the primacy of battleships in the fleet and, in the absence of critiques, one can surmise that all more or less agreed with the prevailing line-ahead tactics. The two authors who ventured a specific opinion on armored cruisers, Schroeder and Mahan, found them useless. The main sphere of disagreement was on the nature of future battleship design—essentially a question of maintaining the pre-dreadnought paradigm or following the lead of the British. This split would come to dominate naval discussion in the U.S. over the next several months, and although the General Board championed the new pattern, it would take until mid-1908 and a special conference at the War College before the issue was well and truly dead.

These were the arguments and opinions that shaped the U.S. Navy as specific information about HMS *Invincible* trickled into the United States over the second half of 1906. Not only was this a service with no time for “Armed Speed,” but one in which armored cruisers of any stripe were obviously on their way out. In other words, the 1906 U.S. Navy was a service uniquely ill-suited to consider the impact of Fisher's new ships. Refusing to consider the battlecruisers as cruisers, early American discussion of the ships, as we will see, considered them a new type of battleship, and assessed their utility on that basis.

On the other side of the Atlantic, there was also a debate over the new ships. Although critics of Admiralty policy were not strong enough to change its course, there was substantial

agitation against Fisher's promotion and policies from senior officers within the Navy.⁶⁷ In time, the most dangerous member of the "Syndicate of Discontent" would be Admiral Charles Beresford, but initially the charge was led by Admirals Sir Cyprian Bridge, Reginald Custance, and Gerard Noel. Aiding them was Mahan's "Reflections," perhaps more popular in Britain than in the U.S., which functioned as the lodestar for conservative critiques of the new ships.⁶⁸

Custance, the most intellectually accomplished of the group, wrote so many missives against Fisher, that he was able to collect them into a book, *Naval Policy*, published in early 1907. In it, he drew a distinction between two schools of naval thought, the "historical," which "hold that it is very important to study tactics and strategy by the light of history," and the "materiel," which "neglected the study of tactics and strategies, and have devoted their energies to the development of . . . ships, guns, armor, &c."⁶⁹ This materiel focus gave the Royal Navy the *Dreadnought* and the *Invincibles*, and the false belief in "superior materiel," which "encourage[d] neglect to acquire skill . . . entirely opposed to the principles and practice of our forefathers."⁷⁰

Custance's criticism of Fisher as *solely* a materialist was unfair (though, obviously, he was more concerned with material than most of his peers); Fisher had very definite ideas on

⁶⁷ Geoffrey Penn, *Infighting Admirals* (London: Leo Cooper, 2000), 103. Some of this discontent was undoubtedly driven by personality issues, but the vitriolic debate over Fisher's policy masked fundamental differences in naval policy between Fisher, his supporters, and his critics. For a recent look at this debate, see Keith McLay's "Swimming in the 'Fishpond' or Solidarity with the 'Beresfordian Syndicate': An Analysis of the Inquiry by the Subcommittee of Imperial Defence into Naval Policy, 1909," *International Journal of Naval History*, Vol. 12, No. 1 (January 2015).

⁶⁸ Marder, *Road to War*, 60.

⁶⁹ "Barfleurl" [Admiral Reginald Custance], *Naval Policy: A Plea for the Study of War* (Edinburg and London: Blackwood, 1907), vii-viii

⁷⁰ Custance, *Naval Policy*, 228-9.

strategy and strong, though hazy, positions on tactics. He was, however, very poor—quite deliberately—at laying out the whole of his strategic vision. He even showed reticence to discuss strategy in depth in front of the Committee of Imperial Defence.⁷¹ Even some of his close aides and correspondents do not appear to have understood his ideal strategy, or chose to overlook the parts of it they saw. This, of course, is one reason why it took so long for historians to come to grips with the full Fisher worldview, and a contributing factor to the Royal Navy's inability to grasp his ideas.

Custance's criticism of Fisher as a materialist was one that would stick. Although most of the leading intellectual lights in Britain broadly supported the *Dreadnought* and, to a lesser extent, the *Invincibles*, a number of those who agreed with Fisher on the new warships, most notably Herbert Richmond and Julian Corbett, placed themselves on the historical side of the larger debate over naval policy.⁷² Indeed, Richmond would go on to blame the materialist focus of the prewar years for the poor tactical performance of the Royal Navy in the First World War.⁷³

Undoubtedly, some of the criticism of Fisher arose not from any particular policies of his, but from his desire to change as much as possible as soon as possible. *Dreadnought* hardly represented the typically minor advance on prior construction. Furthermore, even

⁷¹ Lambert, *Revolution*, 8-9.

⁷² This, of course, placed Corbett, and to a lesser extent, Richmond in a rather difficult position. Corbett owed much of his reputation and, such as it existed, influence to the arch-materialist Fisher. Richmond's career as well was boosted by the patronage of Fisher, who recognized his obvious talents. Corbett maintained a warm regard for Fisher to the end of his life soon after the First World War. Richmond was less impressed, and wrote a few rather intemperate barbs at Fisher's expense in his diaries. See, for example, his June 22, 1909 entry, which railed against Fisher's attitude at the Spithead Review: "disgusting, and a degradation of the office of the 1st Sea Lord" (RIC/1/8, NMM). When Arthur Marder edited Richmond's diaries for publication, (*Portrait of an Admiral*; Cambridge, MA: Harvard, 1952), he removed some of the truly poisonous personal attacks, robbing the diaries of much of their charm.

⁷³ See, for example, Richmond's wartime diaries or his 1920-21 lectures at the R.N. War College, which can be found at the National Maritime Museum.

before *Dreadnought* and the armored cruisers were laid down, Fisher was already thinking of the *next* advance in construction. In this particular case, the vehicle for his pronouncements was another special panel. This one, the Committee on Navy Estimates, included Fisher, the Parliamentary and Permanent Secretaries, and the Accountant General. As the only naval officer on the committee, and the only member with specialized knowledge in naval affairs, the committee, even more than the Design Committee, was intended to be a vehicle for Fisher's opinions.

The Estimates Committee would be allowed to lapse once it found Fisher the money to build his dreadnoughts, but in 1905, it still had a role to play.⁷⁴ In its preliminary plans for the 1906-7 Estimates, the Committee laid out a radical vision for subsequent development. Although its recommendations were not finalized and sent to the Cabinet until November, the basic thrust of the plans is evident from the Committee's first meeting on July 20.⁷⁵ It should also be noted that the Committee's fundamental conclusions were reached without very much in the way of specific information concerning Tsushima; as late as July 18 Herbert Richmond complained about the absence of any attaché reports from the battle.⁷⁶

As opposed to his rather conservative counterparts in the United States, Fisher advocated a *perpetual* revolution in shipbuilding such that each year's battleship and cruiser designs "will embody double the offensive power of any vessel of the same nominal class at present in existence."⁷⁷ As the report made clear, the committee considered speed, not just

⁷⁴ Hamilton, *Modern Admiralty*, 215-18.

⁷⁵ "Memorandum of First Meeting of Committee on Navy Estimates, 1906-7," July 20, 1905, ADM 116/165: Naval Expenditure, TNA, 12-3.

⁷⁶ Herbert Richmond to Corbett, July 18, 1905, CBT/31/1, NMM.

⁷⁷ "Report of Navy Estimates Committee," November 16, 1905, CAB/37/81/173: Naval Estimates for 1906-7, TNA,

fire, as an integral part of offensive power. To that end, while the preliminary version of the report placed the battleship at the heart of naval combat, both it and the final version lauded the *Invincible* design as “far too formidable for extant armored cruisers and battleships.”⁷⁸

But the new armored cruisers were yesterday’s news. Based on the design’s alleged superiority over battleships the committee wondered (and here, Fisher’s hand was very much present) if there was a way to combine “the speed of the armored cruiser with the offensive and defensive strength of the battleship” in a single vessel, citing the Italian battleship *Regina Elena* and preliminary studies from former French Minister of Marine Jean de Lanessan as previous stabs at the concept. With respect to Fiske, these promised to be the real “Compromiseless Ships,” vessels with superior speed, firepower, and armor. With such a ship, the report argued, a British admiral could secure a favorable position in battle *and* pursue a beaten enemy with his strongest units. Left unsaid were the potential savings in the construction and, even more importantly, the massive manpower budget by merging the two types, but at some point the proposed hybridization would certainly have resulted in a smaller number of large warships.⁷⁹ At any rate, Fisher’s plans for perpetual revolution were at odd with the traditional Royal Navy policy of allowing other navies to take the risk of major advances before outbuilding them with Britain’s many efficient shipyards.⁸⁰ Unsurprisingly, the Committee’s suggestions were shelved, and the Royal Navy continued to build battleships alongside battlecruisers.⁸¹

⁷⁸ “Report of Navy Estimates Committee,” 14.

⁷⁹ “Memorandum of First Meeting of Committee on Navy Estimates, 1906-7,” 12-13.

⁸⁰ Arthur Marder, *From the Dreadnought to Scapa Flow, The Royal Navy in the Fisher Era, 1904-1919, Volume I, The Road to War, 1904-1914* (London: Oxford University Press, 1972), 56.

⁸¹ Fisher’s position here was somewhat vindicated by the development of HMS *Queen Elizabeth* in 1911-12 (though Fisher opposed the design at the time), and even more so by HMS *Hood* during and after the First

These arguments were advanced at greater length in an early 1906 staff memorandum, “the Building Programme of the British Navy,” written to address some of the criticisms of Fisher’s construction policies. As Sumida has noted, the purpose of these and similar documents was to influence decision makers and friendly journalists more than presenting a fair discussion of Admiralty policy.⁸² Unlike the Building Committee’s reports, which attempted some sort of advance planning, this memorandum was very much an attempt to justify the Admiralty’s policy since Fisher’s elevation, taking the time to rebut criticisms made of his reforms and add a historical perspective that would have been out of place in an internal document.

The memorandum began with a lengthy discussion of technological developments in naval warfare from Trafalgar to Tsushima. Specifically, the document argued that the Russo-Japanese war created “a new standard . . . regarding naval material.”⁸³ Not only were smaller unarmored and protected cruisers shown to be useless, but that in battle, “that vital issue . . . old, small, slow, ill-armed and ill-protected vessels . . . can play no useful part whatsoever.”⁸⁴ To meet this challenge of the new era of warfare, and maintain the two-power standard, the memo suggested that Britain commit to building four “large armored ships of the ‘Dreadnought’ type” every year, a figure which would have given Fisher the freedom to

World War. Both vessels were dubbed “fast battleships” and before the Washington Conference, *Hood*’s merger of battleship and battlecruiser qualities was deemed successful enough to form the basis for postwar British capital ship design.

⁸² Jon Tetsuro Sumida, “Sir John Fisher and the Dreadnought: The Sources of Naval Mythology,” *The Journal of Military History*, Vol. 59, No. 4 (October 1995), 629-30.

⁸³“The Building Programme of the British Navy,” Admiralty Memorandum, February 15, 1906, ADM 116/886B: Naval Staff Memoranda, TNA, 2.

⁸⁴“Building Programme of the British Navy,” 21.

divide the four between battleships and battlecruisers as he saw fit.⁸⁵

The bulk of the criticism faced by Fisher's new ships was essentially identical. Despite the Admiralty's plans, the introduction of the new ships was hardly problem-free. Judging from the defenses made, criticism faced by the new vessels seems to have primarily revolved around their speed and displacement, as well as general sense that training and valor, not expensive new technologies would be sufficient to win future conflicts.⁸⁶ Increased displacement, the memo argued, allowed for increases in "speed, coal endurance, gun-power, or protection," and indeed, the displacement of the new dreadnoughts gave them "the offensive and defensive power of two, three, or even four battleships of the present day."⁸⁷ To the Admiralty, then, increased displacement was part and parcel of battleship development.

On speed, the memorandum took a somewhat more conciliatory view, freely conceding that "too much may be sacrificed to speed." At the same time, though, the memorandum went on to claim that "in actual battle, as distinct from a game on a tactical board," a faster fleet had a distinct advantage over a slower one.⁸⁸ To maintain the strategic and tactical utility of speed, important to a navy worried about offensive and defensive commerce warfare, displacements would have to be increased to ensure that speed did not come at the expense of armor.

Indeed, the memorandum went beyond claiming that Tsushima was the advent of a new era of naval warfare; it enlisted the supposed lessons of the battle as positive support for the new designs. Although the memorandum took pains to remind its readers that the

⁸⁵"Building Programme of the British Navy," 2-3, 19.

⁸⁶"Building Programme of the British Navy," 23-6.

⁸⁷"Building Programme," 23-5.

⁸⁸"Building Programme," 30.

Admiralty reached its conclusions “before the epoch-making fight of Tsushima . . . on theoretical grounds,” it was not above using the prestige of the battle or its victors as a key part of its justification.⁸⁹ Not only were the new ships on solid ground theoretically, but “[o]wing to our position as Allies of the Japanese,” the Royal Navy had access to “earlier and more reliable information . . . regarding the lessons which should govern future shipbuilding,” lessons which were directly applied to *Dreadnought* and *Invincible*.⁹⁰

The Admiralty also tried to remove the sting from Mahan’s critique of “bigness,” through an idiosyncratic and opportunistic reading of the American debate. According to the “Building Programme” memorandum, while the state of affairs in the U.S. Navy had been used in defense of traditionalist critiques of the new ships, a closer reading of events across the Atlantic suggested that the U.S. Navy, or at least its most important elements, were very much in favor of dreadnought types.⁹¹ Not only did “[a] valuable paper printed in the current number [December 1905]” of USNI *Proceedings* on Tsushima,” Fiske’s “Why Togo Won,” support the Admiralty’s arguments, but “Dewey, the Chief of the United States Navy [professed his] faith in large, powerful, armed ships as the best types for future construction.”⁹²

Indeed, the memorandum went on to claim, the existence of a debate in the United States was merely an artifact of the U.S. Navy’s administrative structure. In this reading, the debate over battleship construction was not one between modernizers and conservatives, but between the General Board, which asked for an all-big-gun battleship and the Board of

⁸⁹ “Building Programme,” 23.

⁹⁰ “Building Programme,” 36.

⁹¹ “Building Programme,” 33.

⁹² “Building Programme,” 22-3.

Construction, which favored a smaller 16,000-ton design instead.⁹³ In other words, “in the United States, as elsewhere, naval executive officers are in favor of concentration of offensive power to the utmost practicable extent, by increasing the size of the battleship,” as against the Board of Construction, who had “no pretensions to firsthand knowledge of the requirements and fighting capabilities of warships.”⁹⁴

Claiming such a clear-cut consensus in the United States was, at best, intentional obfuscation by the authors. Articles by the U.S. Navy’s Director of Naval Intelligence and by Mahan in the March and June 1906 issues of *Proceedings* belie the Admiralty claim that American line officers were solidly behind the all-big-gun battleship. Captain Schroeder’s conclusions were mildly in favor of smaller battleships, and Mahan was outright hostile towards them, and both officers spoke for sizeable constituencies in the U.S Navy. Even the General Board, in their September 1905 call for all-big-gun ships, stopped some way short of endorsing the speed that Fisher found crucial to the effectiveness of the *Dreadnought*, or indeed a *uniform* all-big-gun battery.

The Building Programme memo was intended for consumption outside of the Navy, but on the inside, officers still struggled with how to define and use the new large cruisers. One pro-Fisher officer, Captain Edmond Slade, the head of Royal Navy’s War College, and soon to be Director of Naval Intelligence, gave some indication of the role most British officers thought the new ships could perform in a May lecture at the College on “Speed in Battleships.” Embedded in the general pro-speed lecture was an attempt to lay out a taxonomy of modern warships. Like Mahan, Slade took exception at the name “armored

⁹³“Building Programme,” 33.

⁹⁴“Building Programme,” 33-4.

cruiser,” but where Mahan used it as a stick with which to beat the *Invincible* design, Slade argued that the name was an obfuscation. *Invincible* and its immediate predecessors were not “cruisers” of any sort, but in reality filled “the same part in the fleet as their prototype the 74[-gun ship of the line], which is a role totally distinct from that of the cruiser proper.”⁹⁵

Slade’s notion was an interesting one, and one of the earliest attempts to put the new ships in their own *sui generis* category. The particular comparison, the two-decked ships of the line of the late “age of sail” suggests the level of regard Slade held for the new vessels. The ships, first developed by the French (indeed, the first HMS *Invincible* was a captured French 74) made up the bulk of European battle fleets during the Napoleonic Wars and were noted for their speed and handling compared to their larger triple-decked counterparts. Not only, then, was Slade bringing these ships firmly into the battleship fold, arguing that these new ships had a role to play in the heat of battle, but also implying that their construction could, at some point, outpace that of orthodox battleships a stance that Fisher would certainly have appreciated and endorsed.

Still, Slade’s arguments were, in some way hollow. Skillfully, he made the battlecruiser sound palatable to mainstream opinion without actually echoing Fisher’s real rationale for their building. This was just one manifestation of what one biographer has called “the suggestion of the underhand that ran through” Fisher, and here it damaged his effectiveness as First Sea Lord.⁹⁶ At no time does Fisher appear to have explained what he thought the battlecruiser’s mission was except, perhaps, to close members of the “fishpond.” As a result, the Royal Navy officers who would command the vessels had no guidance at all

⁹⁵ Edmond Slade, “Speed in Battleships,” War Course College, Portsmouth, May 31, 1906, RIC/12/5, NMM, 5-9.

⁹⁶ Jan Morris, *Fisher’s Face: Or, Getting to Know the Admiral* (New York: Random House, 1995), 116.

as to what they were intended for.

Slade's arguments were somewhat echoed in the *Royal United Services Institution Journal's* June report on the new American armored cruiser *Tennessee*. Indeed, the British journal was rather more impressed with it than most observers in its home service, which discontinued armored cruisers after the last *Tennessee* was laid down in mid-1905. To the *RUSI Journal*, *Tennessee* "approximate[d] in fighting efficiency to the battle-ship," although one must keep in mind that *RUSI Journal* made no mention of *Dreadnought's* specifications until September. Compared to pre-dreadnoughts, though, while *Tennessee's* main guns were smaller (10" vs. 12"), its high-velocity guns gave it a longer range and more penetrating power than most extant battleships.⁹⁷

Regarding the three *Invincibles*, though, the Admiralty was still sending out mixed signals. In July, the Admiralty Board took exception to the Secretary of the Committee of Imperial Defence's contention that the new cruisers were "practically of equivalent value as battleships," obviating the need for an increase in battleship production.⁹⁸ Instead, they claimed, "[t]he *Invincibles* are armoured cruisers . . . not battleships in the same sense as the *Dreadnoughts*."⁹⁹ While the Board's motivations were undoubtedly self-serving in trying to keep the construction budget as high as possible, the Board's claim that the new cruisers lacked the *Dreadnought's* "power of giving and taking hard knocks" was far from a spurious claim.¹⁰⁰

Still, Fisher continued to press for his battlecruisers as battleships—or at least

⁹⁷ "Naval Notes," *Royal United Services Institution Journal*, 50:340, 819.

⁹⁸ "Remarks by the Board of Admiralty on the attached Memorandum," July 1906, ADM 116/3095, TNA.

⁹⁹ "Remarks."

¹⁰⁰ "Remarks."

battleship replacements—going far beyond Slade or the original design committee in the 3rd volume of his “Naval Necessities,” a collection of memoranda and Fisher’s ruminations released in August of 1906. To their creator, *Invincible’s* firepower made it more than an armored cruiser. In reality, he claimed, the vessel was a “fast battleship,” a common enough argument at the time. Fisher went further, arguing that the *Invincibles* “bear much the same relation to the ‘Dreadnought’ that the ‘Duncan’ [1901] and ‘Canopus’ [1897] classes do to the ‘Formidables’ [1898] and ‘Caesars’ [1896],” that is an advance over previous battleship construction. Fisher, then, was making the radical argument that the *Invincibles* were not only a *type* of battleship, but superior to even the *Dreadnought*, the supposed gold standard for battleship design.¹⁰¹

However, Mahan’s arguments, both from his pen and those of Fisher’s domestic critics, still bedeviled the First Sea Lord. Many of the documents contained in the third volume of “Naval Necessities” were reactions to Mahanian critiques of the size and speed of the new vessels, especially *Invincible*. Fisher and Jellicoe, the Director of Naval Ordnance, defended both advances on the same terms, as reactions to “the recent development of . . . hitting frequently at long ranges,” which demanded both a battery of large guns to ensure the ability to make hits at distance and the speed to place those large guns in the most advantageous positions.¹⁰²

¹⁰¹ Fisher, “H.M. Ships ‘Dreadnought and Invincible,’” August 1906, ADM 116/3094: “Naval Necessities. Vol. III. Memoranda Relating to Recent Admiralty Reforms,” TNA, 235. One can be forgiven for wondering how the Royal Navy could have been so confused as to build the *Dreadnought* alongside three ships that allegedly superseded it in every way. Furthermore, Fisher’s implicit argument here that battlecruisers were a like-for-like battleship replacement overlooked the dramatic changes in naval warfare that he expected to make the battleship line obsolete.

¹⁰² “H.M. Ships” and “Paper Prepared by the Director of Naval Ordnance, Consideration of the design of a Battleship,” August 1906, ADM 116/3094, TNA, 233-51.

Similar discussions were taking place in the United States, albeit with far less information. *Dreadnought* was built without much in the way of specific security, and its design was a topic of debate around the world well before she launched. On the other hand, the *Invincibles* were built with the utmost secrecy, especially where their armament was concerned. The first mention of the new ships in *Proceedings* appear in March 1906's "Professional Notes," and merely related that the new British armored cruisers "will, we understand, be the most powerful that have yet been built," with no sense of their dimensions or other attributes.¹⁰³ As late as October 5, the Office of Naval Intelligence had no information on the speed, horsepower, torpedo armament, or armor of *Invincible*.¹⁰⁴

When reliable information on the new British ships reached Washington later that month the General Board was sufficiently moved to send Secretary Charles Joseph Bonaparte a memorandum on the new ships as a supplement to their annual construction requests, which they had delivered earlier in October. In it, the Board took the firm stance that the new ships were "in reality battleships . . . designed to form a part of the battle line."¹⁰⁵ Indeed, the Board's letter conspiratorially implied that the British designation of these ships as cruisers during their budgeting and construction was a clever ruse designed to limit the battleship construction of rival navies.

The Board also faced some of the same problems of categorization as their

¹⁰³ "Professional Notes," *Proceedings*, March 1906, 347.

¹⁰⁴ Office of Naval Intelligence, "Some Recent Large Battleships and Cruisers; Sketches of Designs," October 5, 1906, RG 8 Box 112, Folder 9. NHC.

¹⁰⁵ General Board, Letter to the Secretary, October 24, 1906, RG 80 E 281 File 420-2, NARA Washington.

counterparts in Britain. While the memorandum called the new British ships “battleships,” it went on to argue that the *Invincible* “merges the armored cruisers into the battleship,” an interesting choice of words given the British debates.¹⁰⁶ While some in the Royal Navy wondered if the *Invincible* pointed the way to a *future* merger of the types, the American General Board claimed that the new ships *were* the merger themselves. Tellingly, though, the General Board did not take this opportunity to revise their construction requests. If *Invincible* was a battleship, it was not necessarily the sort that the General Board wanted. In that sense, claiming that the British vessels merged battleships with the despised armored cruisers was a backhanded compliment at best.

Around this time, the Navy League entered the fray. The League had been founded in late 1902 to press for the construction of a large Navy. Like other navy leagues at the time, a large part of its membership was drawn from the political, social, and financial elites of the country, but there was also a substantial element of retired (and, from 1907, active) Navy officers. Indeed, the League was founded in part because President Roosevelt threatened to court martial any officer who directly lobbied Congress over naval legislation. With the League’s journal, and its propensity towards anonymous articles and editorials, U.S. Navy officers could lobby for reforms, secure in the knowledge that it would reach many of the right people without the threat of court martial.¹⁰⁷ The officers who wrote for the League tended to be on the younger side, so the League’s aggressively pro-battlecruiser stance hints

¹⁰⁶ General Board to Secretary, October 24, 1906.

¹⁰⁷ Donald Chisholm, *Waiting for Dead Men's Shoes: Origins and Development of the U.S. Navy's Officer Personnel System, 1793-1941* (Stanford, CA: Stanford University Press, 2001), 469. After the *Navy League Journal* folded in 1906, it merged with the Naval Academy’s alumni magazine to form *The Navy*, which became the journal of record for the Navy League. In 1915, the League again published its own journal, *Sea Power/Seapower*, which continues to this day. All three publications took what can fairly be called the Navy League’s stance towards contemporary issues.

at something of a generational gap in the officer corps. Soon after news of *Invincible's* characteristics reached the United States, for example, *The Navy*, the League's journal of record, published an unsigned comment, "Armored Cruisers Passing," calling for the construction of American *Invincibles* "the big-gun, swift battleship," that could serve as a "rallying force for scout cruisers."¹⁰⁸

The main topic in the United States, however, was not HMS *Invincible* but HMS *Dreadnought* and the proper American response to it, a debate that pitted a majority of naval officers against a conservative group centered on Mahan. Although the naval bill passed for the 1906-7 fiscal year gave the Navy dispensation to build a single dreadnought of its own, the issue would not die. Sen. Eugene Hale (R-ME), the chairman of the Senate Naval Affairs Committee took Mahan's side, creating a rearguard action led by "one of the ablest men in the Senate and the outstanding naval authority in the world."¹⁰⁹ Together, their influence threatened to draw the Navy back towards the pre-dreadnought model.

This debate had colored much of the analysis of Tsushima in *Proceedings*, and although it is clear that most officers favored larger battleships with uniform batteries (opinions were, however, divided on the subject of battleship speed), Mahan's words were far more influential, and reached a much wider audience. By September of 1906, this debate had reached the attention of President Roosevelt who, though on cordial terms with Mahan, was firmly convinced that the *Dreadnought* was the future of naval design. There is little doubt then, that when he asked Sims, his naval aide, to prepare a report on Mahan's

¹⁰⁸ "Armored Cruisers Passing," unsigned editorial, *The Navy*, January 1907, 6.

¹⁰⁹ Elting Morison, *Admiral Sims and the Modern American Navy* (Cambridge, MA: Riverside, 1942), 164.

Tsushima article, Roosevelt expected a thorough rebuttal of Mahan's article.¹¹⁰

Sims's report did not disappoint. Combining points made in a 1905 memo for Roosevelt, "Method of Designing Battleships," with trenchant critiques of Mahan's position in favor of smaller, slower, mixed-battery battleships, Sims's report was a blow against Mahan's position. Rather than resting his analysis on theory and logic, Sims based his arguments on recent technological developments. He was, in essence, trying to separate Mahan the theorist from Mahan the commentator. After all, in his own words, Sims remained devoted to "those measures required to build a great fleet of the kind that Captain Mahan advocated—one prepared to defeat any opponent and able to achieve general and lasting command of the sea."¹¹¹

To that end, Sims argued that Mahan simply lacked the technical background in modern design, gunnery techniques, and equipment to make a considered judgment. For Sims Mahan's position on the secondary battery, for example, was based on "mistaken assumptions in regard to . . . efficiency," and an unfamiliarity with the armor distributions of the most recent battleships, which left all vital parts of the vessel behind heavy armor.¹¹² The rest of the report continued in this vein, with Sims claiming that the fundamentals of modern gunnery demanded a uniform battery of heavy guns, large displacements, and high speed. In the end, Mahan's case was wrong not because of poor theory, but because they were "founded largely upon mistaken facts [and] mistaken principles of gun-fire," a damning

¹¹⁰ Morison, *Sims*, 167.

¹¹¹ David F. Trask, "William Sowden Sims: The Victory Ashore," in *Admirals of the New Steel Navy: Makers of the American Naval Tradition, 1880-1930* ed. James C. Bradford (Annapolis: Naval Institute Press, 1990), 285.

¹¹² Sims, Letter to Roosevelt, September 24, 1906, Sims Papers, Box 15, 11.

indictment, to be sure, but not as damning as it could have been.¹¹³

Both the author and the recipient agreed that the piece deserved a wider audience. With Roosevelt's permission, Sims printed the article as a standalone pamphlet, which was widely distributed to officers in the U.S. Navy and, despite its sensitive details on American gunnery practices, to many of Sims's contacts in the Royal Navy. It was also picked up by *Proceedings*, which reprinted a declassified version of the piece in the December 1906 issue. In fact, Sims personally delivered the galley proofs of the *Proceedings* article to Fisher on a late 1906 trip to Britain.¹¹⁴

Roosevelt, convinced of Sims's correctness, took the time to enclose a copy of the pamphlet of Sims's argument in a letter to Mahan, requesting a response.¹¹⁵ Mahan's first response, two days after receiving the letter, was wholly inadequate; Mahan resorted to trying to deflect the question claiming "I do not pretend to be fully equipped in tactical resource, and hold myself retired, as a rule from such discussion, though I present my views when asked. The Institute asked me for a paper," a rather weak defense given the firm claims laid forth in his *Proceedings* article.¹¹⁶ Tellingly, "Reflections" was the last piece Mahan wrote for *Proceedings*. While he maintained his credibility and influence with the public, and continued to write in the popular press, after Sims's attack he was never again viewed as an expert on contemporary affairs within the Navy. On the other hand, the Navy's thought remained very much Mahanian; *The Influence of Sea Power* remained the intellectual

¹¹³ Sims, Letter to Roosevelt, 26.

¹¹⁴ Morison, *Sims*, 172. In exchange, Fisher allowed Sims to tour *Dreadnought*. Based off that visit, Sims compiled a detailed dossier on the new ship for the Navy. A copy is in Box 16 of the Sims Papers in the Library of Congress.

¹¹⁵ Seager and Maguire, *Letters and Papers of Alfred Thayer Mahan*, vol. III, 178.

¹¹⁶ Mahan to Roosevelt, October 8, 1906, *Letters and Papers of Mahan*, 180.

wellspring behind its policies and undergirded most of its debates into and perhaps beyond the First World War.

Mahan's more substantial response sent two weeks later was hardly more convincing. At one point, Mahan claimed "the tactical advantage constituted by superior speed. . . confers the offensive," a contradiction in spirit, and most likely fact, from his "Reflections" article, which claimed that that speed gave little more than the power to run away.¹¹⁷ Although the letter tried to rebut Sims, by the end Mahan was reduced to conceding that "[t]he field is one which should be exhaustively studied by men younger and less occupied than I; by the coming men, in short, rather than by one of the past."¹¹⁸

The "coming men" certainly concurred. In the aftermath of releasing his, Sims received a number of approving letters from his colleagues. The responses of his peers, mid-level officers, were often quite vitriolic. To Fiske, Sims's paper showed that "Mahan fell down because . . . he applied his general principles to conditions that did not exist, and so arrived at conclusions absolutely false."¹¹⁹ An officer of Sims's rank "regretted that I was not on the opposition side, for then I should have had the pleasure of being thoroughly convinced that I was entirely wrong." That writer also expressed "surprise that a man for the soundness of whose opinions I had conceived a great respect should write such a weak article."¹²⁰ The most vicious letter, though, claimed that "it would be an excellent thing for the Service," if Mahan, who "never was brilliant as an officer . . . would keep quiet . . . and solace his old age

¹¹⁷Mahan to Roosevelt, October 22, 1906, *Letters and Papers of Mahan*, 187.

¹¹⁸Mahan to Roosevelt, October 22, 1906, *Letters and Papers of Mahan*, 188.

¹¹⁹Cmdr. Bradley Fiske to Sims, November 7, 1906, Sims Papers, Box 15.

¹²⁰Lt.Cmdr Stammworth to Sims, November 12, 1906, Sims Papers, Box 15.

with pleasant historical and literary reminiscence.”¹²¹ Tellingly, none of these letters, as crushing as they were, attacked Mahan’s theoretical vision, merely his lack of contemporary technical knowledge.

Sims’s article did more than encourage true believers, though. Senior officers also found Sims’s work impressive. Stephen B. Luce, the founder and first president of the Naval War College sent a congratulatory letter, although he stopped short of attacking Mahan, his longtime colleague and friend. The most thoughtful response among the senior leaders came from Rear Admiral Caspar F. Goodrich, the commander of the Pacific Fleet: “I used to think with Mahan but, a couple of years ago, I changed my mind. . . I realized that nothing mechanical will stay ‘put’—that you may fix a size to anything you please . . . but—while your back is turned the...thing has swelled to twice its former size.”¹²²

In Britain, Sims’s piece also met with favor, both amongst his contacts who had received the ostensibly classified pamphlet, and those who read the *Proceedings* article, which was eventually reprinted by Naval Intelligence.¹²³ In the months after its publication, Mahan’s piece had been used as a cudgel against the Admiralty’s new shift, although Fisher assured the First Lord that Mahan was “*passé*, and has become a second—and equally a bore!”¹²⁴ To the Admiralty, then, Sims’s piece was “proof” of Mahan’s weaknesses. Indeed, in early 1907, a collection of Admiralty memos on that year’s building program referred to

¹²¹Cmdr. [John?] Hood to Sims, November 28, 1906, Sims Papers, Box 15.

¹²²Rear Admiral Caspar F. Goodrich to Sims, November 9, 1906, Sims Papers, Box 15.

¹²³ Office of Naval Intelligence, “Papers on Naval Subjects, 1907,” August 1907, ADM 231/47, TNA.

¹²⁴ Fisher to Lord Tweedmouth, October 5, 1906, ADM 116/942: Strategy and Tactics, TNA, 4.

Sims's piece as demonstrating "the American official arguments, as approved by President Roosevelt, against Captain Mahan's views."¹²⁵

Despite the novelty of the *Invincible*, the dreadnought debate would be at the center of the House of Representatives' late 1906-early 1907 hearings on the FY1908 naval appropriations bill. Perhaps, though, "debate" is too strong a word. Former Secretary of the Naval Charles Joseph Bonaparte and current Secretary Victor Metcalf both urged dreadnought construction, and Sims and Wainwright were called to testify on the strengths of the *Dreadnought*-type design. President Roosevelt sent in a letter, based off of Sims's arguments, advocating large battleships.¹²⁶ Indeed, all of the *Dreadnought*-related testimony heard by the House naval committee was positive.

In contrast, Fisher's new cruiser design was almost entirely absent from the testimony, odd for a radically new ship whose specifications only reached the U.S. three months prior to the hearings. Secretary Metcalf echoed the General Board in referring to "the *Invincible* type, which are really fast battleships," but when he went on to discuss the necessity keeping abreast of other naval powers, it is clear that the *Dreadnought* dominated his thinking and that of the other witnesses. The two secretaries, Sims, and Wainwright may have all called for "battle ships of the maximum size and speed," in the 1907 bill, but it is clear from their testimony and the resultant *Delaware*-class the maximum speed was limited to 21 knots (*Invincible*, by comparison was designed for 25 knots).¹²⁷

¹²⁵ Admiralty, "Designs of Armoured Ships to be Laid Down in November 1907," RIC/4/2/3, Herbert Richmond Papers, NMM, 4.

¹²⁶ Theodore Roosevelt, "Increase of Navy—Letter from the President," January 11, 1907, in *Hearings before the Committee on Naval Affairs of the House of Representatives on Estimates Submitted by the Secretary of the Navy, 1906-1907* (Washington, D.C.: Government Printing Office, 1907).

¹²⁷ "Statement of Hon. Victor H. Metcalf, Secretary of the Navy," in *Hearings, 1906-1907*, 288-9.

Roosevelt's letter can perhaps shed some light this lack of response. Speaking of the *Invincible's* armored cruiser predecessors, Roosevelt argued that while they served some useful purposes, "it would nevertheless have been infinitely better to have spent the money . . . in the construction of first-class battle ships . . . taking the battleship all around for the purposes for which a navy is really needed, its superiority to the armored cruiser is enormous."¹²⁸ Regardless of what contemporaries chose to call them, Roosevelt's argument also applied to the new British ships. Indeed, the "official" American terminology of "fast battleship" suggests an appreciation of capabilities far in advance of armored cruisers, while at the same time dismissing them as an unnecessary category of battleship. Since the United States was already building battleships—and preparing for 21-knot "fast" ones at that—there was no rationale for following the British lead on the *Invincibles*.

While the U.S. Navy entered 1907 officially uninterested in armored cruisers and the *Invincible*, there were serious attempts to look at other models of large warship. Early in January, Lieutenant Commander Frank H. Schofield wrote Secretary Metcalf with a design he had developed while working in the Bureau of Ordnance.¹²⁹ He suggested a fast, heavily armored ship that derived most of its offensive power from torpedoes instead of guns. According to Schofield, its 23-knot speed and "invulnerability to gun fire" would allow it to get close enough to an enemy fleet to launch a barrage of torpedoes, "the maximum of offensive power at the minimum cost."¹³⁰ Metcalf was so impressed with the design that he forwarded it to the General Board, who in turn commissioned a study on the "torpedo

¹²⁸ Roosevelt, "Increase of Navy," 367.

¹²⁹ Friedman, *Battleships*, 143

¹³⁰ Lt. Cmdr. F.H. Schofield, Letter to Secretary Metcalf, January 3, 1907, RG 80, E 281, Subject 420-6, NARA Washington.

battleship” from the Naval War College. In theory, the torpedo battleship promised to add an element of speed to the American fleet without any trade-offs in armor, while maintaining high firepower, a combination that even the most partisan battleship proponent could endorse.

Rear Admiral Raymond Rodgers, the NWC President, returned to the General Board in late March with a report questioning the feasibility of Schofield’s calculations, specifically wondering if the speed, armor, and firepower of Schofield’s sketch could be obtained on a realistic displacement. Rodgers also attached a short treatment of the ship from Commander H.M. Dombaugh, a staff instructor at Newport, who had an altogether more interesting take on Schofield’s ship. Dombaugh recognized the value of speed in large ships, but argued that the proper model was not the Schofield design, but HMS *Invincible*. He saw the British ship as “the embodiment of the ideas of . . . the 1904 Conference,” which produced the sketch design of the 12” “reciprocal.” Indeed, Dombaugh argued that the torpedo armament of *Invincible* (which he referred to as an “armored cruiser), five tubes, was sufficient for it to act in the role Schofield proposed for his creation while its artillery firepower made it more versatile.¹³¹

But the War College’s fascination with the torpedo battleship did not stop in May. Over the summer a group of five staff members (more than half of the faculty assigned to Newport), including Dombaugh, put Schofield’s ship through its paces on the game board, finding that the side with the “Schofields” almost always won, with the torpedo battleships

¹³¹ Cmdr. H.M. Dombaugh, Report to the NWC President, March 19, 1907, RG 80, E 281, Subject 420-6, NARA Washington.

forcing opponents on the defensive.¹³² Admittedly, the committee conceded that many of the torpedo battleship's capabilities were conjectural, and that the games assumed the virtual invulnerability of the Schofields to enemy fire; the Schofields were given 50% more armor points than extant battleships.¹³³

Furthermore, the committee was concerned with the Schofield design's slim margin of speed over the *Dreadnought*, only two knots. For a ship reliant on high speed, the committee found this narrow superiority problematic. Instead, the full committee echoed Dombaugh's earlier report and proclaimed *Invincible* to be the best real-world way to approximate the advantages of Schofield's ship, although they focused their attention on its firepower rather than its torpedoes. Faster than the Schofield, sporting a battery of heavy guns, and "very well protected," the committee saw *Invincible* as the ideal speedy adjunct to the American battle fleet while also providing an unspecified level of "greater general usefulness," elsewhere. Nonetheless, a more-heavily armored version of the 1904 "reciprocal" remained their ideal model.¹³⁴

Like the War College staff, the attendees of the 1907 Summer Conference, the first since *Invincible*'s unveiling, found the new British ship fascinating, especially in comparison with the *Tennessee*-class armored cruisers that represented the last word in American armored cruisers. The British ship worked its way into three of the questions on the agenda, and in the responses to all three, the Conference enthusiastically endorsed building similar ships for the U.S. As with the earlier "reciprocal" design, supporters' enthusiasm did not

¹³² Cpt. W. McCarty Little, Cmdr. H.M. Dombaugh, Cmdr. H.S. Knapp, et al. "Report of a Special Committee on the Type of Torpedo Battleship proposed by Lieutenant Commander F.H. Schofield, August 24, 1907, Box 112, Folder 9, NHC, 2.

¹³³ Friedman, *U.S. Battleships*, 144.

¹³⁴ McCarty, et al., "Report of a Special Committee," 2-3.

come from *Invincible's* qualities as a cruiser but rather because the British ship was “in all respects except armor, a battleship.”¹³⁵ Although their armor precluded them from serving in the interior of the battle line, squadrons of *Invincibles* could serve on its extremities as a “fast wing,” a role “with the object of forcing the enemy, while subject to the full fire of one's guns, to perform disadvantageous maneuvers, with consequent loss of effective fire on his part.”¹³⁶

Unlike their superiors on the General Board, colleagues writing in *Proceedings*, or civilian policymakers, officers at the Naval War College found the British *Invincible* type very appealing. Far from Roosevelt's argument that other large vessels were a waste of time or the attacks made on armored cruisers in general, and high speed large warships in general, the officers charged with considering and teaching naval strategy asserted the need for some sort of speedy capital ship to pair with the forthcoming American dreadnoughts. Over the next few years, the Naval War College would remain the spiritual home of the American pro-battlecruiser case.

In this the War College was not just set against the top of the naval hierarchy, but also the editorial stance of *Proceedings* which, over the course of 1907, published a number of articles touting the supposed futility of designing large warships with speed in mind. Like most officers, Philip Alger, *Proceedings'* editor had supported the pro-*Dreadnought* case, but on the subject of armored cruisers and the new “Invincibles,” he appears to have been determined to hold the line. Over the course of 1907, his journal published, somewhat unusually, three foreign articles (one British, and two French, which Alger translated himself)

¹³⁵ 1907 Summer Conference, “Question 8,” Summer 1907, 1907 Conference, Volume I, RG 12, NHC, 52.

¹³⁶ “Question 8,” 48.

that dealt with the issue of speed in large warships, two of them with commentary from American officers attached, quite a noticeable trend in a journal with only approximately 40 articles a year.

The first French piece, by M.J.A. Normand, a designer of warships for the French Navy, was a dry engineering piece on the design issues brought on by larger, faster battleships, such as dealing with increased weight and length. Normand did not explicitly discuss whether these changes were beneficial, or detrimental, although his analysis made it clear that as speed, and its companion length, increased, armor, weight, and cost became more and more problematic.¹³⁷ The commentary, provided by D.W. Taylor, a future director of the Constructor Corps, took a more explicit stance. While Taylor conceded the utility of speed in a battleship, he also claimed that “reduction of speed allows length . . . the most objectionable dimension of a man-of-war, to be reduced.”¹³⁸ For Taylor, the issue was not so much speed in general, but some indefinite level of *excessive* speed, at which sacrifices made in armor became counterproductive.

The next issue’s article “Armor and Speed,” was also taken from a French journal, and took a more polemical approach to the issue. Its author went beyond the previous piece and positively asserted that “speed is weakness,” especially when compared to armor.¹³⁹ At the heart of the essay’s argument was a novel interpretation of technological development. Speedy ships, it was argued, derived their entire value not from being fast, but from being *faster* than contemporary ships, making them comparatively useless as they aged. On the

¹³⁷ M.J.A. Normand, “The Size of Battleships as a Function of their Speed,” trans Philip R. Alger, *Proceedings*, March 1907, 125-32.

¹³⁸ D.W. Taylor, “Comments on ‘The Size of Battleships as a Function of their Speed,’ *Proceedings*, March 1907, 135.

¹³⁹ E. Beaufailhy, “Armor and Speed,” trans. Philip R. Alger, *Proceedings*, June 1907, 720.

other hand, armor maintained some marginal utility even when surpassed by subsequent developments; older battleships could be used for secondary purposes or harbor defense, while older, now slower, cruisers were simply useless.¹⁴⁰

The last of the speed articles, from the December issue, by a British officer, Lt. A.C. Dewar, focused on the value of speed in tactics and strategy. The article, which combined two pieces originally published in the British *United Service Magazine*, was reproduced in *Proceedings* annotated with comments, presumably from Alger, and accompanied with a response from Cmdr. A.P. Niblack, an American. While Dewar's article studiously refrained from making any definite conclusions one way or another, *Proceedings'* annotations took a very dismissive view of any attempts to add speed to battleships. Indeed, in several places, the annotations suggested that superior speed was only useful for running away, a claim that Mahan had made the previous year.¹⁴¹

All of this discussion came against the background of severely strained relations between the United States and Japan. Before 1906, American naval planning was mostly concerned with threats from European powers, especially Britain and Germany. In 1906, though, longstanding hostility towards Japanese immigrants on the U.S. West Coast drove a wedge between the two countries. The immediate spark was a series of restrictive property and education laws passed by the city of San Francisco aimed at the city's growing "Oriental" population in the wake of the 1906 earthquake. The Roosevelt Administration convinced local authorities to change the laws, and signed the "Gentleman's Agreement" with Japan to reduce immigration. Nonetheless, tensions remained, and lingering until at

¹⁴⁰ Beaufailhy, "Armor and Speed," 717.

¹⁴¹ Lt. A.C. Dewar, "The Value of Speed in Tactics and Strategy," *Proceedings*, December 1907, 1367-84.

least 1945.¹⁴²

Naturally, the Navy came foremost in any potential war with Japan, and the issue was discussed on the General Board and at the Naval War College, where the development of plans against Japan (the first of the famous “Blue-Orange” problems) was considered at the 1906, and 1907 Summer Conferences. The United States’ position in the Pacific was not a good one. In the summer of 1906, the U.S. Navy had removed its battleships from the Pacific, to create a unified battle fleet in the Atlantic. In their place were a handful of armored cruisers, which, it was hoped, were fast enough to run away from Japanese battleships.¹⁴³ The rudimentary plans developed called for the cruisers to sail to the West Coast and join the Atlantic Fleet (which would steam around South America), and then for the combined U.S. battle fleet to make its way to the Western Pacific and fight the Japanese Navy there.¹⁴⁴

These initial plans never amounted to much—the crisis was over by the 1908 around-the-world cruise of the “Great White Fleet,” but it set the basic pattern for the Navy’s “War Plan Orange” down through the Second World War. As the General Board and the Naval War College adjusted and refined the plans over the next few years, the size of the Pacific, and the magnitude of the undertaking highlighted some major gaps in the U.S. Navy’s force structure. Foremost among them was scouting. After the end of armored cruiser construction, the Navy’s leadership never showed more than a desultory interest in constructing scouts. In time, battlecruisers would come to be seen as the ideal long-range scouts for a Pacific War,

¹⁴² Edward S. Miller, *War Plan Orange* (Annapolis, MD: Naval Institute Press, 1991), 21-3.

¹⁴³ William Reynolds Braisted. *The United States Navy in the Pacific, 1897-1909* (Austin: University of Texas Press, 1958), 188.

¹⁴⁴ Miller, *War Plan Orange*, 32-8.

but by the end of 1907, the Navy was still more interested in exploring their potential on the ends of the battle line

When the time came for the General Board and the Secretary to lay out the next year's building program in late 1907, both Metcalf and the Board called for a four-dreadnought program with no armored cruisers of the traditional or *Invincible* models. Indeed, Metcalf claimed in his letter's section on foreign shipbuilding that apart from Germany, foreign countries had stopped building armored cruisers. Paying special attention to the British case, Metcalf claimed that the line between armored cruisers and battleships "almost disappeared," as a result of the *Invincible*, leading the Royal Navy to discontinue armored cruisers as a class and focus on light cruisers and battleships.¹⁴⁵ Without an extra level of detail, it is impossible to tell which side of the divide Metcalf placed the new British ships, though if he was echoing the General Board's sentiments he would have considered *Invincible* a fast battleship rather than a heavy cruiser.¹⁴⁶

As we have seen, the United States Navy in the early twentieth century was ill suited to accept the new British warships as cruisers, which Metcalf's report confirmed. As he put

¹⁴⁵ Victor Metcalf, "Annual Report of the Secretary of the Navy," November 18, 1907 in *Annual Reports of the Navy Department for the Fiscal Year 1907* (Washington, D.C.: Government Printing Office, 1908), 7.

¹⁴⁶ It is worth noting here that Metcalf's understanding of British policy was somewhat inaccurate. Nicholas Lambert has made a strong case that Fisher intended to build what we would today call a "high/low" mixture of large cruisers, with armored cruiser construction continuing alongside that of the more capable battlecruisers for reasons of economy and, one suspects, practicality. The absence of armored cruisers and, for that matter, battlecruisers from the Royal Navy's 1907 building program was a function of the British Navy's construction schedule, which allowed for three battleships that year. N. Lambert, *Revolution*, 141. The reasons for abandonment of this policy will be discussed in the next chapter.

it, in American warships “special prominence has been given to [firepower] and armor protection—the essentially vital characteristics of any fighting vessel.” All evidence points to an overwhelming majority of American officers sharing Metcalf’s sentiments.¹⁴⁷ In a service where debates raged around whether or not 21 knots was an “excessive” speed for a battleship, a lightly armored 25-knot cruiser-battleship hybrid was unlikely to gain much traction amongst uniformed and civilian policymakers. The Russo-Japanese War, which convinced the British and Japanese that armored cruisers had a role to play, had the exact opposite effect in the United States, where both sides of the battleship debate agreed that the ships were not worth building.

Yet there was no agreement on replacements for the maligned cruisers. *Invincible* may have been a non-starter in Washington, but at Newport, a sizeable part of the War College staff recognized the utility of the British ship, even if they would have preferred a slightly different model. Indeed, the two alternatives that seem to have aroused the most interest in the United States were domestic, and explicitly designed for fleet actions: the 1904 Conference’s “reciprocal” and Schofield’s torpedo battleship. Both native designs provided some margin of excess speed, while paying for that speed in firepower instead of armor, creating ships that could survive service in the heart of battle. Faced with no agreement over next steps, the U.S. Navy did nothing to replace or supplement its armored cruisers.

In the United States, the Navy’s internal debate over warship design and construction took place in public and semi-public fora, and came to the attention of Congress and the President *before* ships were authorized and built. In Britain, initial discussions over *Invincible* and *Dreadnought* played out almost entirely within the Admiralty. Public

¹⁴⁷ Metcalf, “Annual Report,” 13-4.

discussion over the new ships came later, in the form of criticism hurled at the Admiralty from disgruntled current and former RN officers and newspaper columnists *after* the ships had been designed, and construction commenced.

While this model of decision-making may have made the Royal Navy somewhat more efficient than its American counterpart, it would prove to have weaknesses. The American “system” made it very difficult for a ship type to be introduced or discontinued without the assent or acquiescence of the officer corps; even with a majority of officers on the side of the new dreadnought pattern, a group of conservatives led by Mahan almost managed to block the shift. On the British end, with decisions made by the Admiralty Board with the influence of a few aides, it was much easier to come to decisions or policies that those outside of the Whitehall bubble objected to. Moving forward, the problems inherent in the British model would become evident as strong criticism of Fisher and his policies was mounted from an important, and politically connected, admiral, Charles Beresford.

What is clear from both countries is that these very different outcomes were in large part a function of structure, contrasting the very powerful Admiralty Board with the very weak General Board. Fisher’s “revolution” did not only take place in Britain because of Fisher’s nationality, but also because the Admiralty Board’s power allowed for rapid shifts in policy if the First Lord or First Sea Lord were charismatic and driven enough. Even if the United States Navy had had an officer with Fisher’s opinions (unlikely), and that officer rose to a position of high command (*very unlikely*), there would have been no way for him to put his program into action without support from a large percentage of his subordinates. Lacking power, the Admiral of the Navy singly, or the General Board collectively, could only nudge the Navy towards its desired goal. If they had possessed the Admiralty Board’s power, the

United States would likely have had an all-big-gun battleship of 18-19 knots' speed under construction perhaps six months earlier than HMS *Dreadnought*. As it happened, the first such warship was not under construction until late 1906, and the first American dreadnought would take another year to begin.

CHAPTER 3: DEFINITION AND DEBATE

At the ends of 1906 and 1907 respectively, the British and American navies appeared to have reached a rough stability in their attitudes towards the new ships. In Britain, Fisher may have been heavily criticized, but with the rest of the Admiralty Board acquiescing to many of his suggestions, it seemed that there was very little opponents could do to effect meaningful changes in Admiralty policy. In the United States, pro-dreadnought advocates were winning the internal debate (albeit in the face of an active traditionalist rearguard). While there were a few officers who supported the *Invincible*, the mass of U.S. Navy opinion regarded all armored cruisers with some measure of hostility, and neither the General Board nor the Secretary showed any inclination to put the type in their construction requests.

This apparent stability, however, proved temporary. In the United States, the broad consensus on battlecruisers shattered over the course two contentious Summer Conferences in 1909 and 1910. Over those two years, participants set aside the battlecruiser-as-scout ideas of the 1907 Conference, and debated the merits of a battlecruiser “fast wing,” with the ships used in much the same way as in Dombaugh’s 1907 game board exercises. At least four separate design concepts were advanced as an ideal fit for this role; a role whose existence was itself contentious. By late 1910 there seemed to be a narrow consensus in favor of the British design template for such ships, and that battlecruisers were part of the ideal well-balanced fleet. This was, however, not echoed by a desire to build them in the prevailing funding environment, where they could take funding from the battleship program. The

General Board and the Secretary maintained a less nuanced position on the new ships, arguing that battlecruisers were a foreign luxury of indeterminate tactical and strategic value; unnecessary for the American fleet. Even if money for battleships and battlecruisers had been available in those years, the U.S. Navy would not have built the lighter ships.

In Britain, battlecruisers continued to be built in the absence of serious debate on their form and function. Instead, the main debates in the Royal Navy revolved around two challenges to Fisher's policy. The first was the alleged vulnerability of the country to invasion, a fear stoked by service rivalry and the Conservative opposition to the Liberal Campbell-Bannerman government. This, however, paled in comparison to the feud between Fisher and Charles Beresford, the commander of the Channel Fleet. Ostensibly started by disagreements over wartime policy, this dispute quickly metastasized, until it made Fisher's position as First Sea Lord untenable in late 1909.

Yet, within this atmosphere, Fisher managed to secure the construction of five more battlecruisers: *Indefatigable*, a slight improvement on the *Invincible* type, and the other two ships of its class, *Australia* and *New Zealand*, funded by their eponymous Dominions. These were followed by *Lion* and *Princess Royal*, designed to a newer, much more powerful standard. Still, all five were authorized, designed, and built without serious discussion in or outside of the Admiralty as to their purpose or operational role in time of war.

Once the full effect of Admiral Fisher's reforms kicked in, his term in office was dogged by almost constant scandal and opposition, fomented by the Conservative press, and

aided by disgruntled officers with personal and professional reasons to oppose Fisher.¹

Among the more persistent attempts to embarrass the Admiralty was the so-called “invasion scare.” The issue was an evergreen one, resting on a bedrock of service politics. Army leaders used the threat of a “bolt from the blue” surprise invasion as justification to argue for a higher military budget and, for some, the institution of conscription. The Committee of Imperial Defence had studied the issue in 1903, returning the verdict that a sudden invasion was impossible, and after the study’s results were released in 1905 political interest in the issue cooled down.²

Matters came to a head in June 1907, however, when four former Army officers, including the *Times*’ military correspondent, Charles Repington and ex-Army Commander-in-Chief Lord Frederick Roberts, delivered a memorandum on the possibility of a sudden German invasion to Arthur Balfour, formerly Prime Minister and now Leader of the Opposition.³ Balfour, who had been in office for the 1903 report, had staked out a position on the Navy’s side of the issue. The 1907 report’s distinguished authors, however, and its assumption that Germany, not France, was the main danger prompted Balfour to submit the report to Sir George Clarke, the Secretary of the Committee of Imperial Defence.⁴ Based on his cover letter, Balfour was concerned that it might be within the capacity of Germany’s

¹ Marder, *From the Dreadnought to Scapa Flow: The Royal Navy in the Fisher Era, Volume I: The Road to War, 1904-1914* (London: Oxford UP, 1961), 77.

² Marder, *The Road to War*, 347-8.

³ Arthur Balfour to Sir George Clarke, July 20, 1907, CAB 38/13/24, The National Archives, Kew.

⁴ Marder, *The Road to War*, 348-9.

growing merchant fleet to sneak a 70,000-man army across the North Sea without warning, catching the Royal Navy unawares.⁵

After a CID subcommittee was formed in November 1907 to consider the possibility of German invasion, Lord Roberts fleshed out his argument, claiming that a strike without warning was “good German military doctrine,” and “the sole means by which Germany can hope to contend with us.” Furthermore, Roberts noted that the new Home Fleet, lacking bases on the East Coast, was stationed in the Channel, giving the German fleet the opportunity to delay or blockade it at the Straits of Dover long enough for an invading force to land. At any rate, it was primarily composed of warships with nucleus crews, preventing them from responding to an unexpected attack.⁶ As a result, Roberts urged the strengthening of the army, presumably at the expense of the naval budget.⁷

The Admiralty’s response to the new criticisms was swift. In August, Fisher argued that the only body capable of making pronouncements on naval issues was the Admiralty Board, and certainly not a committee of four former army officers with “no claim whatever to special knowledge of naval administration.” Far from being a detriment to defense, he claimed, the new Home Fleet organization made an invasion *less* likely. With the newest, strongest, warships in the Home Fleet, and an overwhelming superiority in destroyers and submarines, Fisher found the prospect of an attack “chimerical.” He suggested that the claim

⁵ Balfour to Clarke, 7-8.

⁶ To save money, many of the newest, most powerful, armored units in the Royal Navy were assigned to a new Home Fleet organization in 1906-7, including *Dreadnought* and the three under-construction *Invincibles*. These warships were placed “in the nucleus crew reserves,” manned with 60% of their wartime complement. According to Fisher, providing full complements in times of heightened tension would be simple; in the meantime, the reduced complements would save money and free up sailors for the other fleets. His critics were horrified at taking so many powerful units out of commission. N. Lambert, *Revolution*, 157-64.

⁷ Julian Corbett, “Notes on Lord Roberts’s Memo,” November 27, 1907, CBT/6/4, Caird Library, National Maritime Museum, Greenwich, 36.

was more an unsophisticated attempt at increasing the Army's budget than an honest attempt at defense planning.⁸

Despite Fisher's disdain, the forces arrayed on the side of an inquiry—the Leader of the Opposition, the ex-Army chief, and the *Times*' chief military correspondent—were too influential, and the consequences of a successful invasion too grave for the CID to ignore. A subcommittee of the CID was appointed to consider the matter further. Although the subcommittee released a report in mid-1908 backing Fisher's views on the matter, the issue continued to fester in the press and Parliament until 1909, bound up in the wider Beresford melee.

However, it would be unfair to imply that all of the criticism of Fisher and his reforms was as self-serving as the invasion issue. Just as the United States had Mahan and other conservative officers who advocated against dreadnought construction, there was a great deal of honest opposition to Fisher and his policies, although in the British case they had no way to push their agenda through the Navy itself. As we have seen, opponents of the Royal Navy's new emphasis on a smaller number of larger, faster, ships stationed in fewer places were forced to find other avenues of attack, especially the press. Understandably, Fisher's partisans also fought back through magazines and journals. Foremost among these dueling articles was "Recent Attacks on the Admiralty," written by the eminent historian Julian Corbett in *The Nineteenth Century and After*'s February 1907 issue.

The major issue Corbett emphasized in the article was design, especially criticism of the *Invincibles*. Corbett especially attacked the conservative argument that the Board "departed from . . . tradition" in focusing on large cruisers designed for battle rather than

⁸ Fisher, "Invasion and Raids," August 22, 1907, CBT/6/4.

scouting and then “regarding these cruisers as part of our battle strength.” To critics like Custance, these departures from orthodoxy created two major problems for potential operations. Firstly, the expenditure of resources on large, expensive cruisers prevented the construction of smaller cruisers for scout work in the numbers necessary for efficient operation. At the same time, with such a large percentage of the fleet’s heavy guns in the new armored cruisers, detaching them for reconnaissance in lieu of their smaller counterparts would dangerously weaken the battle fleet in the face of the enemy.⁹

Corbett’s defense of Admiralty policy on this indictment was to claim that modern technology had created “a fundamental change . . . in the conditions of the cruiser problem.” The increase in speeds in all classes of ships since the conversion to steam had narrowed the speed gap between battleships and cruisers.¹⁰ At the same time, with Germany theoretically able to rapidly convert its large, fast ocean liners into auxiliary cruisers, the British Navy needed something fast enough to catch them and well-armed enough to outfight them, both dubious propositions for a light scout cruiser. Even better, argued Corbett, modern armored cruisers could be detached from the battle fleet because wireless telegraphy (W/T) made communication over vast distances instantaneous, allowing them to return to the fold if necessary.¹¹

⁹ Julian Corbett, “Recent Attacks on the Admiralty,” *The Nineteenth Century and After*, issue 360 (February 1907), CBT/12/88, Caird Library, NMM, 202-5.

¹⁰ With the commissioning of the *Dreadnought*, the gap had closed to some 3 knots at best under ideal conditions, while larger battleships would maintain more of their speed in the event of heavy seas or rough weather), necessitating larger, more powerful cruisers that were capable of putting up more of a fight

¹¹ Corbett, “Recent Attacks on the Admiralty,” 204-5. This is an interesting take on an issue close to Fisher’s heart. He anticipated an Imperial network of wireless stations, allowing a small number of battlecruisers to exercise control over vast spaces; in 1909, he would suggest covering the entire Pacific Ocean with 3-4 battlecruisers and a handful of light cruisers and destroyers. For a more detailed discussion, see Nicholas Lambert’s “Strategic Command and Control for Maneuver Warfare: Creation of the Royal Navy’s ‘War Room’ System, 1905-1915,” *Journal of Military History*, April 2005.

At the same time, Fisher's critics continued to use Mahan and his famous Tsushima article from *Proceedings*. They appear to have taken to heart Mahan's view that the Russo-Japanese War proved the uselessness of armored cruisers, and that the *Dreadnought* (and, by extension, *Invincible*) were too big and lacked a sufficient secondary battery. Corbett dismissed the first concern by pointing to the new *Tsukuba*-class proto-battlecruisers under construction in Japan. To defuse the second, Corbett made an appeal to the authority of gunnery experts on both sides of the Atlantic, arguing that "[t]he practical men," as opposed to "theorists," were of the opinion that the all-big-gun battery increased the accuracy and efficiency of gun laying.¹²

Corbett was already identified with the Fisherite wing of naval opinion, but this article seems to have moved him firmly into the First Sea Lord's inner circle. After the article's publication, Fisher wrote Corbett that the piece was "just the thing 'to meet the present distress' as St. Paul would say!"¹³ Indeed, the very next day Fisher asked if he would be interested in a paper on "Fleet Distribution [and] Protection of Commerce. . . . Are you going to keep that talent wrapped up in the napkin of criminal modesty?"¹⁴ Corbett's involvement in Fisher's attempt to bolster naval education is covered below, but Fisher also considered Corbett a valuable ally in policy debates. That support led to Corbett receiving opportunities to write Admiralty position papers in addition to his journalistic and historical endeavors. To some extent, Corbett's help was valuable: D.M. Schurman has argued that the skill of Corbett's arguments were key to "postponing the fall of Fisher from 1907 to 1909."¹⁵

¹² Corbett, "Recent Attacks on the Admiralty," 206.

¹³ Fisher to Corbett, January 15, 1907, CBT/12/99.

¹⁴ Fisher to Corbett, January 16, 1907, CBT/12/93.

¹⁵ Schurman, *Education of a Navy*, 149-50.

Though clever, Corbett's article was insufficient to stem the tide of opposition against Fisher and his policies. Early in 1907, the Admiralty released another collection of memoranda and articles, titled "Designs of Armored Ships to be Laid Down in November 1907," to push back against critiques of *Dreadnought* and *Invincible* as well as showing that those ships were the pinnacle of naval development. Indeed, despite its title, the pamphlet spent far more space defending Admiralty policy and savaging its critics in and out of uniform than it did discussing the new ships. Still, within these constraints, the pamphlet provides a rather good snapshot of the state of naval debate within Whitehall and the press at the time by showing what attacks the Admiralty felt it necessary to rebut and their strategies for doing so.

Fisher's introduction set the tone for the pamphlet. The documents inside did not just support Admiralty policy, but "completely dispose[d] of" dissent and showed "the 'Dreadnought' [was] an unqualified success . . . every feature of the design has been justified."¹⁶ Taken as a whole, the pamphlet appears to have served two purposes, in addition to the two mentioned above. The documents within tried to show that the Admiralty as a whole undertook development of the *Dreadnought* and *Invincible*, not just a Fisher-led cabal. Further, these warships were designed without reference to the Russo-Japanese War, portraying Fisher and his advisors as visionary rather than reactionary. The first point, as we have seen, is somewhat dubious. As to the second, the design of the two ships really was based on first principles rather than on close observation of events in the Far East.

The second purpose of the pamphlet as a whole, and most of the individual documents contained within, was to rebut Mahanian critiques of the new warships. Three of

¹⁶ Fisher, "Introduction," in "Designs of Armoured Ships to be Laid Down in November 1907," [early 1907], RIC/4/2/3, 3.

the entries, a letter from Atlantic Fleet CinC William May, a report from DNI Ottely, and an unsigned policy memo all made reference to William Sims's anti-Mahan piece. The ostensibly classified pamphlet form of Sims's article was also the last document in the collection, with a cover letter from the author. Although that version of the piece was intended for circulation within the U.S. Navy, Sims evidently recognized Fisher's Admiralty as full of kindred spirits, suggesting, "[a]s the paper is an answer to the opponents of the all-big-gun ships . . . some of the arguments will interest you."¹⁷

Sims's wish was something of an understatement. The piece was a godsend to an Admiralty beset by critics using Mahan's stature to attack its policy; the Sims's arguments struck at the heart of Mahan's credibility as voice on current affairs. In his introduction, Fisher went so far as to call Sims's opinions, "the American official arguments, as approved by President Roosevelt," a claim that, exaggerated as it was, would probably have done an effective job of undercutting Mahan in the eyes of journalists and government officials reading these documents who had no specialized knowledge of naval affairs.¹⁸ The Admiralty seems to have been especially taken with Sims's arguments regarding high speed and size.

At the same time, Sims's piece also burnished the Admiralty's claims regarding innovation instead of simple reaction. Ottley, for example, portrayed Sims's work as an argument founded "entirely upon the ascertained facts of the Russo-Japanese War," a gross misrepresentation of Sims's article, which used examples from the war to support his

¹⁷ Sims, November 3, 1906, in "Designs of Armoured Ships," 91. In exchange for showing Fisher his article, the latter granted him the rare favor of a guided tour of the *Dreadnought* when he visited Britain in late 1906. Elting Morison, *Admiral Sims and the Modern American Navy* (Cambridge, MA: Riverside, 1942), 172.

¹⁸ Fisher, "Introduction," 4. Sims's opinions were certainly *influential*, and may have reflected the views of a majority of American officers and the President, but to call them "official" before the 1908 Battleship Conference was premature.

preexisting opinions.¹⁹ Doing so, however, allowed Fisher and his lieutenants to contrast the American argument based on empirical evidence, with the British decision, “acting on . . . exceptional experience in . . . tactical handling,” made “some months previously to the battle of Tsu-Shima [sic].”²⁰ This argument, if taken to its logical conclusion, moved the debate over the *Dreadnought* and *Invincible* away from the Russo-Japanese War to ground that required a deep knowledge of naval technology theory, which would not apply to most press critics.

But it would be a mistake to paint this publication as a simple attempt to relate Sims to domestic policymakers. These authors, for example, were much more willing to make a positive case for speed than Sims, who saw it as a component of gunnery, not useful for its own sake. In contrast, the collection’s authors argued that speed was of the essence for the British fleet, whose “object must always be to meet and annihilate [the enemy] in the shortest possible time.”²¹ William May, the commander of the Atlantic Fleet, offered a more tepid endorsement of speed, and claimed that a “preponderance of speed” was useful to an admiral, although he wondered how long the British Navy could sustain such a dramatic edge in speed over its competitors.²²

The pamphlet’s contents also attempted, somewhat confusedly, to explain what the battlecruisers were for. The material provided implied that the new ships, though called

¹⁹ Captain Charles Ottley, “The Strategic Aspect of our Building Programme, 1907,” in “Designs of Armoured Ships,” 13-4. Although this essay is credited to Ottley, Corbett may have drafted significant portions of it. Whoever the author/s were, they seem to have had access to Fisher’s earlier personal writings on the subject. The opinions Sims expressed on battleship design can be traced back to at least mid-1904.

²⁰ Ottley, “Strategic Aspects,” 16.

²¹ “Admiralty Policy in Battleship Design,” in “Designs of Armoured Ships,” 59.

²² Admiral William May, letter to Fisher, January 3, 1907, in “Designs of Armoured Ships,” 37.

armored cruisers, were intended to lie somewhere closer to the battleship end of the spectrum, at least for the time being. As Ottley noted, the battlecruisers, though inferior to the *Dreadnought* for pitched battle, were “superior to any European battleship at present afloat.” He went on to argue that battlecruisers allowed the Royal Navy to overwhelm foreign armored cruisers, utilizing the same armadillo analogy Fisher used when he was still CinC Portsmouth.²³ The unsigned policy memo in the collection went further, hearkening back to Captain Slade’s 1906 argument that the battlecruisers “fulfil the same part in the Fleet as their prototype the 74 . . . totally distinct from that of the Cruiser proper.”²⁴

The portions of the enclosed reports dealing with the battlecruiser’s function should, in keeping with Sumida’s warning about “secret” Admiralty papers, be taken with an exceptionally large grain of salt. What we know of Fisher’s own strategic vision, as incomplete and poorly reasoned as it sometimes was, tells us that his plans for the ships were far more revolutionary, to the point of doing away with battleships altogether. At the same time, this somewhat more moderate appreciation of their uses was far more in keeping with the opinions of the service at large.

Fisher’s strategic and materiel reforms brought with them an implicit challenge to the Royal Navy’s way of thinking about war. His policies aroused severe opposition from traditional-minded politicians and naval officers, but Fisher’s plans also clashed with traditionalist arguments on a conceptual level. This was a level of analysis that the senior leaders of the Royal Navy, Custance possible excepted, were singularly ill-equipped to

²³ Ottley, “Strategic Aspects,” 18-20. Ottley did not, however, explain how the battlecruisers could be used with the battle fleet and on anti-cruiser patrols at the same time.

²⁴ “Admiralty Policy in Battleship Design,” in “Designs of Armoured Ships, 71. Of course, age of sail 74s were considered line of battle ships, making the memo’s meaning somewhat unclear.

handle, both for reasons of education and temperament. Although Fisher himself was unable to explicate his thoughts in this manner, he made ready use of those who could, most notably Julian Corbett, who began lecturing at the War College in 1902.²⁵

Despite his lack of formal education and his own rather muddled strategic thinking, Fisher was a firm proponent of improving education for officers. He had been the driving force behind the 1902 “Selborne Scheme” of officer education, which called for common training of executive, engineer, and marine officers up to the rank of lieutenant.²⁶ While First Sea Lord, Fisher pushed for more rigorous academic training for officer trainees, and showered attention the Royal Naval War College, including a 1906 plan to expand the school.²⁷ From mid-1904, Captain Edmond Slade, a very able officer who was later named DNI, led the College. As originally conceived, the British War College had many similarities to its American counterpart. Like Newport attendees, British officers at the War College (which moved from Greenwich, to Devonport, to Portsmouth and, eventually, back to Greenwich) were exposed to lectures on a variety of naval topics combined with board game exercises which bore a great resemblance to those being conducted across the Atlantic.²⁸

Yet, the two institutions occupied somewhat different roles in their respective hierarchies. In the United States, the Naval War College was a vital part of the naval establishment. Not only was the War College the home of Mahan, but in the absence of a

²⁵ D.M. Schurman, *The Education of a Navy: The Development of British Naval Strategic Thought, 1867-1914* (University of Chicago Press, 1965), 149.

²⁶ Marder, *Road to War*, 28-30.

²⁷ Julian Corbett, Letter to Fisher, May 13, 1906, CBT/12.

²⁸ This is somewhat ironic; the writings of John Knox Laughton, a British officer who taught at the Royal Naval College, played a large role in encouraging Stephen B. Luce to set up the American school in the 1880s. A. Lambert, “The Development of Education in the Royal Navy: 1854-1914” in *The Development of British Naval Thinking*, ed. Geoffrey Till (London: Routledge, 2006), 47-8.

general staff, the U.S. Navy turned to the instructors and students at Newport to fulfill many of its functions, including war planning. Indeed, as Ronald Spector has noted, the War College was the only entity in the U.S. Navy that had the *capability* to perform this sort of staff work; the General Board lacked the staff and the resources to do much more than make general pronouncements on strategy.²⁹ The President of the Naval War College had an *ex officio* slot on the General Board, and indeed, by the middle of the first decade of the century, some connection with the War College was increasingly seen as an ideal prerequisite for one of the plum positions on the General Board.³⁰

The British War College, on the other hand, was a different beast. Although the Royal Navy was larger than the American fleet and had worldwide responsibilities, the Admiralty also lacked a staff department. Herbert Richmond, one of Fisher's naval aides, who went on to a glittering career as a staff officer and theorist, painted a sobering picture of naval planning in 1907, a situation he called "beneath contempt." According to Richmond's diary, a senior Admiralty official had told him that there were no war plans in existence because "the circumstances are altering daily," obviating the need for formal planning. Lacking "real solid thinking," Richmond thought that the Navy was "in the hands of every faddish who has a gift of the gab and a little more intelligence than the average."³¹

²⁹ Ronald Spector, *Professors of War: The Naval War College and the Development of the Naval Profession* (Newport, RI: Naval War College Press, 1977), 101.

³⁰ Newport was certainly not perfect. Until 1911, the only program available was the Summer Conferences, which provided little in the way of actual instruction. At the same time, entrance was non-competitive and based on personal preference. Still, while many mediocre officers passed through the War College, many of the exceptional officers of the World War I period—prolific thinkers, as well as future fleet commanders and General Board members—passed through the U.S. War College as instructors or students, and the General Board regularly attended its summer sessions.

³¹ Herbert Richmond, Journal, April [6], 1907, RIC/1/7.

In theory, the RN War College could have gone some way towards rectifying that situation, as it did in the United States. In practice, the school was unable to fill the ersatz staff role as effectively. Even Reginald Custance, who had helped to found the college, expressed concern that the education on offer could give officers a useless veneer of knowledge, “learning the definitions by heart,” instead of thinking for themselves.³² The college even had trouble being assigned enough qualified ratings for the school’s clerical work.³³ The quality of the students was also uneven. With an understandable bias towards sea service, the sort of talented officers who leapt at a chance to attend a summer conference or course at Newport tended to avoid Portsmouth. Even Richmond, a well-respected theorist, a future War College president, and a high-ranking staff officer during the Great War, avoided a term at the College.

Still, from 1905 the RN War College had a remit to “study tactical and strategic problems sent down to it by” the Naval Intelligence Division at the Admiralty.³⁴ Indeed, as Richmond related while railing against the state of planning in the Royal Navy, some officers felt that the War College “fulfilled the duties now carried out by the German Admiral stab [sic].” Unsurprisingly, Richmond heaped scorn on the idea that “officers under instruction learning the very elements of the strategic side of their profession . . . can fulfill the duties of a trained staff and prepare plans for war.”³⁵ Others, however, viewed the shift less unfavorably. Julian Corbett, an instructor there, for example, excitedly wrote in early 1906

³² Slade to Corbett, December 2, 1906, CBT/13/2.

³³ “Some Notes on the Early Days of the Royal Naval War College,” *The Naval Review*, Vol. 19, No.2 (May 1931), CBT/6/17.

³⁴ C.I. Hamilton, *The Making of the Modern Admiralty: British Naval Policy-Making, 1805-1927* (Cambridge, UK: Cambridge University Press, 2011), 219.

³⁵ Richmond Diary, April 6, 1907.

“[w]e are fast becoming something like a general staff.”³⁶ More to the point, Fisher used the War College’s special campaigns branch as, in effect, his personal war staff from 1906 on.³⁷

This arrangement perfectly suited Fisher’s preference for ad-hoc committees that relied on his prestige and support for their existence and influence, perhaps too perfectly. It was unlikely to challenge Fisher, could be dissolved or disassociated at any time and, crucially, only dealt with war plans. As the extant German and Japanese and the future British and American staffs suggested, the work of a true general staff went beyond drawing up war plans. In some ways, their work with education, training, and materiel were more important than their war plans, which were always subject to modification by the commander on the scene if war broke out.³⁸

Given the nature of Fisher’s reforms the material and, especially, training functions absent from the War College loom large. In many important ways, they were, contrary to Corbett’s enthusiasms, nothing at all like a war staff. Beyond his close informal advisors, who could modify, but not change his vision, Fisher took very little outside guidance in developing plans for his warships. It is impossible to believe that a staff would have appreciably changed his mind, but they may have interrogated his assumptions about developments like, for example, the designs of his next battlecruisers, *Indefatigable* and *Lion*, and intervened in the disputes over fire control that, some have argued, doomed the battlecruiser concept.³⁹

³⁶ Corbett to Henry Newbolt, January 30, 1906, CBT/3/7/44, NMM.

³⁷ Andrew Lambert, “Education in the Royal Navy,” 54-5.

³⁸ This latitude was quite reasonable. Given the lack of fixed features like cities and fortresses at sea, there were strict limits on the utility of detailed war plans for navies.

³⁹ See Sumida, *In Defence of Naval Supremacy*, for the most detailed argument in this vein, especially the epilogue and conclusion.

Likewise, a formalized staff may have helped to create a battlecruiser doctrine in the Royal Navy. Perhaps the biggest problem with battlecruisers in active service was their unfamiliarity, and the consequent lack of a service-wide understanding on how they were to be used. Fisher himself offered very little guidance to subordinates, and even if he had, there was no mechanism to transmit that guidance to the fleet. As battlecruisers began to enter the fleet in 1908-09, their employment was essentially left up to individual squadron and fleet commanders, and by the time war came in 1914, there was no common body of battlecruiser doctrine or practice to draw on.

Whatever its faults, the RN War College had its own Mahan in the person of the civilian naval theorist and historian Julian Corbett. Corbett put his time at the War College to good use, developing a set of theories that, intentionally and unintentionally, fleshed out and systematized many of Fisher's precepts. When interviewed twenty years later, former students of his would say that Corbett had a "preference for getting the better of the enemy in some other way than coming to blows . . . his teaching did not preach that to destroy . . . the enemy's armed force was the primary military aim." According to them, while he was respected, "[h]e did not know enough about the sea, sea terms, or sailing ships, to lay down the law" in naval theory.⁴⁰

Leaving aside the value judgments, the description of Corbett's views is broadly fair. Throughout his career as a writer, Corbett urged the Royal Navy, and British policymakers to aim at the "ultimate object of the war," rather than an enemy's forces, viewing the former as in keeping with British traditions and interests.⁴¹ Indeed, he bemoaned the influence of "the

⁴⁰ "Some Notes," 243.

⁴¹ Julian Corbett, "Russo Japanese War, Lecture I," Autumn 1909, CBT/31, 94.

continental theory of concentration and overthrow” in the British military and its single-minded focus on coming to grips with the enemy and, in the event of a major war, landing major forces on the Continent.⁴² One author has suggested that Corbett’s work amounted to “the first fully fashioned national strategic doctrine.”⁴³

However, Corbett did not spend all of his time at Portsmouth composing and delivering historical lectures. His position also afforded him the opportunity to lay down his strategic precepts unencumbered by the need to lecture on a particular war or period in his so-called “Green Pamphlet,” printed in early 1909 as a sort of textbook for his students. Later, the ideas expressed therein would be at the heart of his *Some Principles of Maritime Strategy* (1911), a longer treatment of his strategic ideas.⁴⁴

The Green Pamphlet presented a rather striking contrast to the Mahanian thought that dominated the American navy and was quite popular in Britain as well. While Corbett agreed with Mahan that naval strategy was based on the control of communications, he had an altogether more nuanced understanding of Mahan’s central tenet of “command of the sea.” Corbett’s pamphlet identified two types of sea command, general and local, which could in turn be either temporary or permanent. Permanent general sea control, which is the closest to Mahan’s command of the sea, was described as a rare situation derived from the almost total destruction of an enemy’s navy. The best example he could give of it was the situation in the

⁴² Corbett, “Synopsis of the Combined Operations Lectures,” 1909, CBT/31, 70.

⁴³ A. Lambert, “Education in the Royal Navy,” 55.

⁴⁴ Nicholas Lambert has recently (“False Prophet?: The Maritime Theory of Julian Corbett and Professional Military Education,” *Journal of Military History* 77 (July 2013), 1067) argued that the Green Pamphlet is best seen as a purely pedagogical tool. While Lambert is undoubtedly correct that it was intended as an educational aid, his position glosses over the many similarities—conceptual and textual—between it, Corbett’s ill-fated “War Plans” memorandum for the Admiralty, and Corbett’s later *Some Principles of Maritime Strategy*, the latter an undoubted attempt to lay out a general theory of naval warfare. If nothing else, the act of defining contentious terms like “command of the sea” carried with it a great deal.

Russo-Japanese War after Tsushima, with almost the entire Russian Navy underwater, in Japanese hands, or trapped in the Black Sea.⁴⁵ While Corbett and Mahan both based their thinking primarily on the “second Hundred Years’ War” between France and Great Britain, they obviously took very different lessons from it. Unsurprisingly, Corbett took a less aggressive approach to battle. We have already seen from his lectures that Corbett did not necessarily view the opposing fleet as the proper target of a naval campaign. While it could certainly be useful, a fleet in a rush to come to blows could “assist [the opposing fleet] in evading you,” and even let it cut one’s lines of communication.⁴⁶

Corbett’s position at the War College also got him tangentially involved in the baroque machinations of the notorious 1907 “War Plans,” developed by a special committee at Portsmouth.⁴⁷ They can be traced to the attempts of the Director of Naval Intelligence, Charles Ottley, to draft war plans, “if for no better reason . . . than to deflect potential criticism of [Fisher’s] administration for not having done so.” By late 1906, Ottley’s efforts were successful, but his office, in preparations for the Hague Conference, lacked the resources to draft the plans. Instead, responsibility for developing them was given to a four-man committee headed by Captain George Ballard, a former naval intelligence staffer. Ballard was assisted by Marine Captain M.P.A. Hankey, who Ballard had worked with in the NID. The other two committee members are unknown, but one appears to have been an

⁴⁵ Corbett, “Notes on Strategy,” January 1909, CBT/6/15-16, 8.

⁴⁶ D.M. Schurman’s *The Education of a Navy* admirably lays out Corbett’s ideas at length, highlighting their clash with the “traditional” British naval values of headlong attack as laid out in Mahan, though he gives Corbett a too-active role in the formulation of prewar policy. See, also, his biography of Corbett, *Julian S. Corbett, 1854-1922: Historian of British Maritime Policy from Drake to Jellicoe* (London: Royal Historical Society, 1981).

⁴⁷ The purpose and process of the 1907 War Plans has become a topic of intense debate amongst naval historians of the period. For the most part, I am inclined to adhere to Nicholas Lambert’s detailing of the document’s genesis from *Planning Armageddon* (Cambridge, MA: Harvard University Press, 2012), 70-77, which is certainly the most thorough recent account.

expert on mines, and the other on gunnery. At any rate, the other two men contributed little to the final effort; Ballard and Hankey were at the War College in Portsmouth while drafting the plans and the unknowns evidently stationed elsewhere.⁴⁸

Four months later, the Ballard Committee returned to Fisher with a set of war plans. These appeared to have been cobbled together out of old War College studies, and material borrowed from the NID.⁴⁹ The original Ballard Committee report no longer exists. In its stead, there are various versions of Admiralty “War Plans” from 1907, released as another one of Fisher’s “secret” reports. In addition to material added from the War College and Admiral A.K. Wilson, the outgoing head of the Channel Fleet, the new pamphlet contained an introduction written by Julian Corbett at Fisher’s behest.⁵⁰

The Ballard Committee’s recommendations will be discussed later in the chapter, but for now, let us focus on Corbett’s introduction, “Some Principles of Naval Warfare.” Calling it Corbett’s is perhaps unfair to him. Fisher not only commissioned the paper, but also gave clear instructions on its writing, especially the section on battlecruisers, and then revised Corbett’s final draft.⁵¹ As Nicholas Lambert notes, “it reflected Corbett’s own views only in so far as they confirmed to the admiral’s requirements.”⁵² Still, checking this document against his “Green Pamphlet” and *Some Principles of Maritime Strategy*, his 1911 book,

⁴⁸ N. Lambert, *Planning Armageddon*, 70-1.

⁴⁹ N. Lambert, *Planning Armageddon*, 71-2 and *The Fisher Papers*, Volume II, ed. P.K. Kemp (London: Navy Records Society, 1964), 316-7

⁵⁰ Corbett had some idea of how irregular the process was; as Nicholas Lambert notes in “False Prophet?” (1067), he only agreed to write on condition that would not be identified as the author.

⁵¹ At the very least, Corbett appears to have had access to Fisher’s “Naval Necessities” while writing the document, as well as some help from War College head Edmund Slade. Kemp, *Fisher Papers*, Volume II, 316.

⁵² N. Lambert, “False Prophet?,” 1067.

quite a lot of Corbett's own thinking shone through the constraints of the War Plans collection.

Unusually for the time, Corbett's introduction deprecated the value of the battle fleet. While it was certainly useful for gaining local command of the sea, "for the actual and direct control . . . battle fleets are unnecessary and unsuitable," the real exercise of control resting on cruisers. From there, Corbett argued that the traditional understanding of the relationship between the battle fleet and the flotilla was flawed. Cruisers, destroyers, and the like were not there to support the battleships; battleships existed "to be the support of cruisers and flotillas to enable them to control maritime communications."⁵³ This control, rather than scouting and screening the main fleet was the true role for cruisers and the flotilla, one that he rated rather more important than prevailing British and American practice allowed.

Fisher's additions appear most obviously in the sections on battlecruisers. The new "Invincibles," Corbett was made to argue, were a way to bridge the gap between flotilla and battleships. When operating against an enemy's smaller ships, they offered "resistless power," allowing the Royal Navy to sweep sea lanes of unfriendly cruisers, protecting British communications and allowing British cruisers to focus on sea control.⁵⁴ At the same time, when attached to the battle fleet, the speed of the *Invincible* enabled a British commander to "grasp a flying enemy by the tail, and hold him," ensuring a decisive engagement against a weaker fleet. Accordingly, battlecruisers were nothing less than "the expression of the most

⁵³ Corbett, "War Plans, Part I: Some Principles of Naval Warfare," [early 1907], 3-7.

⁵⁴ Corbett, "Some Principles," 10-11.

cherished and distinctive aspiration of our great masters of the art [of war];” ships equally useful for winning command of the sea and exercising control over it.⁵⁵

It is understandable why Fisher found Corbett’s talents so useful. Even without heavy editing, Corbett’s thinking meshed rather well with Fisher’s own thoughts.⁵⁶ Fisher envisioned a future Royal Navy split between the smaller ships and submarines of the flotilla, which would provide defense against raids and invasions, and the battlecruisers, which would provide both the means for securing command of the sea, and shoulder most of the burden of controlling it.⁵⁷ Corbett’s overall strategic vision was not as radical as Fisher’s, but his theories offered up a justification of the battlecruiser with somewhat more abstraction than the defenses that came directly out of the Admiralty, operating on the same level as Mahan (apart from the latter’s ill-fated Tsushima piece, a foray into detailed contemporary analysis).

Even with Fisher’s interjections and edits, Corbett’s theories offered a distinctly British counterpart to the ideas of Mahan.⁵⁸ Although both men essentially started with close study of the same material, Corbett’s writings are far less prescriptive than those of Mahan. In that sense, Corbett merely codified a strand of thought that was, if not dominant, prevalent

⁵⁵ Corbett, “War Plans, Part I,” 11-12. The prose in this section is rather more florid than Corbett’s usual tone.

⁵⁶ Compare the battlecruiser section of the War Plans document (323-8 in Volume II of *The Fisher Papers*), with Corbett’s “The Constitution of Fleets” section in *Some Principles of Maritime Strategy* (London; Longmans, first edition 1911). Corbett was rather less bullish on battlecruisers than Fisher, viewing their development as an inevitable effect of modern warship design and strategy, rather than an unalloyed good, but he did see them as a mandatory part of an effective modern fleet.

⁵⁷ N. Lambert, *Sir John Fisher’s Naval Revolution* (Columbia, SC: University of South Carolina Press, 1999), 121-4.

⁵⁸ This is primarily a function of hindsight. At the time Mahan’s reputation as a theorist was far higher in the eyes of the British public and navy than Corbett’s; many of the Mahanian attacks on Fisher’s policies were undoubtedly heartfelt. In the intervening decades, historians have come to appreciate Corbett’s more nuanced and sophisticated understanding of naval history and theory. See, for example, the 1992 Corbett-Richmond conference at the U.S. Naval War College, the proceedings of which are collected in *Mahan is not Enough*, eds. James Goldrick and John B. Hattendorf (Newport, RI: Naval War College Press, 1993).

in British strategic culture. Although Corbett, like Mahan, was too ignorant of certain facets of modern warfare to be completely useful as a strategist, his theories had some utility as a lens through which officers could comprehend and analyze naval issues of day, which, to some extent, it was.

Still, the Royal Navy lacked any sort of systematic strategic training for officers or, more tellingly, a staff to carefully consider these issues and make recommendations. In some senses, the NID and War College fulfilled some of those roles, but their influence on service policy was limited. In both cases, their staff functions interfered with their statutory roles, and there was no guarantee that the First Sea Lord would heed their advice. Indeed, the Ballad Committee episode highlights the ad hoc nature of planning in the Royal Navy. Even then, once the Committee produced its report, it was bowdlerized and co-opted as a political cudgel by Fisher.

Corbett's development and reworking of his theoretical ideas in 1906-7 are a great contrast to the intellectual situation in the United States, where *Proceedings* spent the whole of 1907 making thinly veiled attacks on speedy battleships and the new British vessels. The journal's first issue of 1908 saw that case made far more explicitly by Ensign R.R. Riggs, attacking battlecruisers in particular, rather than the concept of speed in general in his piece "The Question of Speed in Battleships." Despite the 1907 Conference's support for the new British ships in lieu of "traditional" armored cruisers, Riggs put both in the armored cruiser category, a class he clearly had no use for.

An armored cruiser, Riggs argued, “is nothing in the world but a battleship in which guns and armor have been sacrificed for three knots’ speed,” putting them at a disadvantage when matched against battleships.⁵⁹ If not designed for fighting battleships, Riggs asked, “what *is* she intended for? Surely not as a scout, . . . for vessels of a fifth the displacement could do this work as well. . . . By escaping from a stronger enemy she will never win wars. History teaches that it is only by the shock of armed fleets that this is done. . . . Every argument against [armored cruisers] holds good against the battle-cruisers of the *Invincible* type.”⁶⁰ This highlights again the American obsession with major battles to the exclusion of other forms of warfare.

In summing up his argument, Riggs revealed the influence of Mahanian doctrine when he argued that wars were “not to be decided by skirmishing or cross-raiding, but by one or more pitched battles. . . . [E]very nerve should be strained both in peace and war to prepare for these *battles*. As armored cruisers have been shown not to be as valuable . . . as are battleships, they are a mistake.”⁶¹ This sentiment could have come directly from the pen of Mahan in 1905 and demonstrates again that while Mahan was unsuccessful in preventing the adoption of dreadnoughts, his ideas remained the bedrock of naval culture in the U.S. The assumptions remained, repurposed here in an attack on cruisers.

More importantly, Riggs’s piece shows the lingering confusion in the United States about how to categorize the new vessels. Despite referring to them as “cruisers,” Riggs’s analysis rested on analyzing their performance as battleships, as opposed to the 1907

⁵⁹Ensign R.R. Riggs, “The Question of Speed in Battleships,” *Proceedings*, March 1908, 236.

⁶⁰Riggs, “The Question of Speed,” 239.

⁶¹Riggs, “The Question of Speed,” 240.

Conference, which had considered them both as “fast battleships” and scouts, a role that Corbett’s analysis ignored. Neither role fully captured the utility of the new ships. Viewing them as battleships highlighted their disadvantages in firepower and armor compared to orthodox battleships, while looking at them as scout cruisers highlighted the immense expense of battlecruisers compared to the light cruisers usually detailed for such duty. If there was value in the battlecruiser concept, in lay in, as Corbett argued, their ability to fulfil *both* roles in the same vessel.

This confusion extended to the American promotion exams in strategy and tactics required of all aspiring lieutenant commanders, commanders, and captains. Of special interest here are two guides produced for officers on opposite sides of promotion board examinations. The first, written in 1908, by and for officers undergoing examination in the Pacific Fleet attempted to provide its readers with acceptable answers for potential questions. The other, compiled at the Naval War College, provided officers sitting on promotion boards with questions they could ask and sample “correct” answers. Taken together, these documents give some indication of the state of thought in the U.S. Navy. Instead of the sometimes avant-garde or controversial views expressed in conference or journals, these answers tell us what was considered inoffensive and middle-of-the-road enough to pass muster at promotion boards.

Compared to *Proceedings* and Mahan, the anonymous Pacific Fleet officers took a moderate stance on the utility of speed. It was, they claimed, useful on both the strategic and tactical levels while maintaining that it could not “substitute for armament” in battle.⁶² On the other hand, they did agree that the rationale behind battlecruisers was flawed. As an

⁶² Various authors, “Questions and Answers in Tactics and Strategies,” May 31, 1908, RG 8, Box 106, Folder 6, NHC, 8.

answer to a question on the possibility of removing arms or armor from a battleship to provide for high speed, they suggested answering with a flat “No.” At the same time, however, they conceded that “the whole subject is one on which . . . many fine writers disagree,” a rather clever non-answer.⁶³

On the other hand, their discussion of armored cruisers was surprisingly positive:

[Battlecruisers] [c]an be used as fast wing of battle fleet; scout to press home a reconnaissance; to fight other armored or unarmored cruisers; blockade closer [to a defended coastline] than a battleship. convoy troop ships or other unarmed vessels; destroy commerce; and where the guns are heavy enough, can assist in battle line and pierce armor; protect either by convoy or patrol, lines of communication, or by running enemy's commerce destroyers to earth.⁶⁴

Simply put, it is breathtaking to see such a positive description of armored cruisers in the United States in 1908, especially in a document that rejected (however tepidly) battlecruisers, which had, of course, been supported by the 1907 Conference. Indeed, this discussion of the tactical uses for armored cruisers reminds one of nothing so much as Corbett’s justification for battlecruisers quoted above. Of particular interest is their claim that armored cruisers with heavy guns could serve in the line, not merely as a fast wing. Given that the newest armored cruisers in the U.S. Navy’s arsenal were the 10” *Tennessees*, this is a difficult claim to reconcile with the authors’ suggestion not to build battlecruisers. Oddly enough then, the document is in the strange position of rejecting battlecruisers as a design while being rather bullish on their capabilities.

The guidebook for examiners offered a similar conundrum. In response to an identical question on sacrificing protection and/or firepower to create a faster battleship, the conclusion was that the sacrifices were not worth it. While the advantages of a ship that

⁶³ “Questions and Answers,” 22-3.

⁶⁴ “Questions and Answers,” 5.

sacrificed firepower instead of armor were noted, and the ability of such “fast battleships” to press home a torpedo attack were mentioned, the undesirability of making sacrifices remained. If more speed was desired, the only option on offer was increasing the size of the battleship to prevent a reduction of offensive or defensive strength, hearkening back to Fiske’s “Compromiseless Ships” article.⁶⁵ Still, the document affirmed the value of battlecruisers in abstract. Another answer, to a question on the composition of a “well balanced fleet,” asserted that “fast battleships or battle cruisers,” were essential to the functioning of such a fleet. Tellingly, this ideal fleet did not include armored cruisers, being composed entirely of capital ships and flotilla.⁶⁶

What is to be made of these two documents, both of which seem to lack internal consistency? Obviously, the U.S. Navy had yet to reach a firm consensus on battlecruisers. Still, even in two documents designed to present cautious and inoffensive views, two general principles can be seen. First was an acknowledgement of the utility of, depending on language, battlecruisers, fast battleships, or heavy armored cruisers to, at the very least, support battleships in action. Despite these claims, both sets of authors took exception at their design on a theoretical and categorical level. In a sense, then, these arguments boiled down to understanding the use and value of battlecruisers while, in keeping with American notions of naval theory, preferring battleships.

Of course, the promotion board guides were attempting to lay out middle-of-the-road positions, not set a course for future American naval policy. For that, we can turn to the 1908

⁶⁵ “Questions in Seamanship, Ordnance and Gunnery, Navigation and Piloting, Steam Engineering, Military and International Law, and Strategy and Tactics,” [1913 or earlier], RG 8, Box 50, NHC, 47. The sections quoted and discussed here were noted as being written by Cmdr. W.L. Rodgers. Given the rank noted, and his tenure at the War College, his sections were almost certainly written before or during 1908.

⁶⁶ “Questions in Seamanship,” 41.

Battleship Conference held at Newport in the wake of widespread sniping and discontent over the newly designed *North Dakota*, the second ship in the *Delaware*-class. Ostensibly, the Conference was prompted by Commander Albert Key, who saw the under-construction *North Dakota* at the Fore River Shipyard in Massachusetts while seeing to the fitting-out of his own *Salem*, and wrote a letter to the Secretary detailing its perceived flaws, a copy making its way to President Roosevelt as well, through Sims. In reality, the Conference was an attempt by insurgent mid-level officers, including Sims and W.L. Rodgers, to air their grievances concerning fundamental issues of battleship design and the design process.⁶⁷

Looking strictly at the discussion of *North Dakota*, the Battleship Conference displayed an institution ill-suited to consider battlecruisers. Many of the officers who agitated for a conference to begin with found the armor of the *North Dakota* unforgivably light.⁶⁸ At least one of the Conference committees doubled-down on this argument, claiming that the *North Dakota's* armor was too light *because* she was too fast, recommending a slower speed and more weight given to armor. Although the General Board's Conference Committee and the Reconciling Committee recommended maintaining the 21-knot standard for all current and future construction, a navy where a 21-knot battleship was a major point of contention was hardly a navy poised to accept a 25-knot battlecruiser.⁶⁹

The case against the *North Dakota* was perhaps best made by Rear Admiral Caspar Goodrich, a former commander of the Pacific Squadron, in a statement to the Conference as it was considering its final report. To Goodrich, the new battleship had “[a] wholly

⁶⁷ Norman Friedman, *U.S. Battleships: An Illustrated Design History* (London: Arms and Armour, 1986), 79-81.

⁶⁸ Commander Key, Letter to Truman Newberry, June 9, 1908, “1908 Battleship Conference [Volume I?],” RG 8, NHC, 1-2.

⁶⁹ “Report of the Reconciling Committee,” August 10, 1908, “Battleship Conference [Volume I?], 5.

unjustifiable lack of protective qualities,” so few, in fact, that he saw the preceding *South Carolina*-class ships as more than a match. To be fair, *North Dakota* was faster than the older ships, if only so she could “make use of its superior speed in an ignoble way,” in battle. Instead, argued Goodrich, with the *North Dakota* and its sister ship *Delaware*, the United States had the opportunity to build a ship of any displacement, “which would be floating and formidable after DREADNOUGHTS and ERSATZES had all gone to the bottom.” He conceded that such a ship could even have the high speed that some of the younger officers favored “for various reasons which I am unable to fathom.”⁷⁰

Despite his age and irascibility, Goodrich was hardly a reactionary in the vein of Mahan. Indeed, Goodrich had been one of the officers to congratulate Sims on his dismantling of the old master. In his call for matching displacement to desired qualities rather than fitting capabilities to a given displacement, Goodrich echoed Fiske’s call for a gargantuan “compromiseless ship.” Like many of his fellow officers, Goodrich viewed speed in large ships as a luxury, very much secondary to concerns of arms and armament. In fact the entire Conference voted, by a 33-15 margin, to reduce the speed of future battleships to 20 knots, if it allowed for increased armor.⁷¹

Most importantly, the 1908 Battleship Conference placed responsibility for setting warship design parameters firmly into the hands of the General Board, which had competed with the Board on Construction and the Bureau of Construction and Repair for influence over warship design. By dissolving the Board on Construction, and placing C&R in a decidedly

⁷⁰ Rear Admiral Caspar F. Goodrich, Statement to the Conference, August 12, 1908, “Battleship Conference [Volume I?],” 1-2.

⁷¹ “Synopsis of the Record of the Proceedings of conference ordered by the Acting Secretary of the Navy to report on the design of the NORTH DAKOTA class, and to make a recommendation as to the military characteristics which should be required in the battleships to be built in the immediate future,” [1908], RG 8, NHC, 21.

subordinate role, warship characteristics were firmly determined by line officers, who could more easily tailor their specifications to prevailing tactical and operational requirements.⁷²

Secretary Metcalf's annual report from 1908 reflected the general mood laid out at Newport. Rather than viewing battlecruisers as cruisers, or as a new *sui generis* class of warship, Metcalf's report followed the lead of his subordinates in treating them as a subset of battleships. The "so-called armored cruisers of the *Invincible* type," he claimed were really "fast battle ships," with speed emphasized instead of protection.⁷³ Still, despite his acknowledgement that Britain, Japan, and Germany were all building "fast battle ships," Metcalf's construction requests echoed the General Board's call for four battleships "of the heavy single caliber, all big gun type," with a similar speed profile to *North Dakota*, and no armored cruisers of the new or old types.⁷⁴

The events of 1908 showed that the U.S. Navy was still grappling with battlecruisers on a conceptual level. In the documents quoted above, the new ships were referred to variously as "battleship cruisers," "(heavy) armored cruisers," "fast battleships," and "battle cruisers," each name betraying a different understanding of their place in a fleet and their wartime role. Unlike in 1907, however, there was now little mention of using the new ships primarily as scouts; discussion seemed to revolve around their utility as an aid or supplement to traditional battleships. At the same time, there were no voices in *Proceedings*, at the Battleship Conference, or on the General Board willing to speak up for their construction, nor

⁷² Friedman, *U.S. Battleships*, 82.

⁷³ Victor Metcalf, "Report of the Secretary of the Navy," November 30, 1908 in *Annual Reports of the Navy Department for the Fiscal Year 1908* (Washington: Government Printing Office, 1908), 8.

⁷⁴ Metcalf, "Report of the Secretary of the Navy," 37.

much talk of domestic counterparts like the 1904 Conference's cruiser or the Schofield torpedo battleship.

1909, however, would be different, at least at the Summer Conference. Mostly ignored by *Proceedings*, the General Board's memos, and the Secretary during that year, battlecruisers would be a major topic of discussion at Newport, as participants discussed both their form and their function. Although the full Conference would not go so far as to recommend battlecruiser construction, its deliberations went some way towards clarifying the theoretical position of battlecruisers in American thought.

It should be pointed out that this hesitancy towards battlecruisers was confined to the Navy itself. *The Navy*, the organ of the Navy League, for example, retained respect for the new ships, playing off the argument that the new ships were merely a type of battleship. In an editorial on "The German Cruisers" (the just-commissioned proto-battlecruiser *Blücher* and the forthcoming battlecruiser *Von der Tann*), *The Navy* agreed with the U.S. Navy consensus that armored cruisers were obsolete, before pivoting and claiming that the new German ships "are, in fact, battleships about equal in strength to our new *North Dakotas*."⁷⁵ A later article on the British Navy asserted that both *Dreadnought* and *Invincible* were both "'capital ships,'—that is vessels of immense size and power fitted in every respect to take their place in the line of battle."⁷⁶

Naval opinion, on the other hand, was moving in another direction, producing one of the more fascinating Summer Conferences of the era. Battlecruisers had been on the docket in 1907, but at that early date, the participants lacked a full appreciation of the impact of the

⁷⁵ "The German Cruisers," *The Navy*, April 1909, 3.

⁷⁶ "The Naval Situation in England," *The Navy*, April 1909, 36.

Dreadnought and battlecruiser, and that conference's discussion of the lighter ships was marked by giddy optimism and a lack of analytical rigor. 1909 provided the first opportunity for attendees to look at battlecruisers after they had entered service. The later date also allowed the Conference to consider the changes in the rest of the naval world. By 1909, dreadnought battleships were no longer a topic of serious debate; they were the accepted standard of naval power. Battlecruisers themselves were not just a British curiosity; the *Kaiserliche Marine* had tried—and with *Blücher* failed—to match *Invincible* and were gearing up for another attempt, the future *Von der Tann*.

Despite this, when viewed from Newport the place of battlecruisers was still uncertain in this brave new naval world. The British use of these ships was confusing, to say the least. Although *Invincible* and her sisters were classified as armored cruisers, their placement with the battleships of the Home Fleet suggested that they were destined for some sort of fast wing role. At the same time, the standing American prejudice against cruisers and towards heavy armor made these ships, which existed outside of tidy classification schemes, difficult to come to grips with. Looking through the 1909 Conference's reports, we see a maturing appreciation of the strengths and limitations of battlecruisers matched with a hesitancy to embrace the type.

Fortunately, enough preliminary material has survived to allow us to trace the Conference's full process of thought and revision.⁷⁷ The documents evince a great deal of confusion, as attendees attempted to comprehend and explain the prior years of flux within

⁷⁷ For the 1909 Conference, the attendees were divided into four committees. After discussion of each question within each committee, two joint reports were produced for each question, one written by the 1st and 3rd Committees and another by the 2nd and 4th. After the production of the two reports, a Reconciling Committee for each question was appointed, which attempted to merge the two preliminary reports into a single document. This report, along with any minority reports from the Reconciling Committee, was then sent to the entire Conference for a vote. The Conference as a whole could vote to accept the Reconciling Committee's report, one of its minority reports, or vote on an amended text.

the Navy's prevailing strategic culture. Of particular significance were the questions on scouting, fleet composition, and especially the design of fast wing ships, which asked the attendees to consider design priorities for a fast battleship: "powerful battery with limited protection," or "moderate battery with heavy protection?"⁷⁸

On the topic of scouting, Question 14, the 1909 Conference tended to agree with their predecessors in 1907, the 1st and 3rd Committees' report claiming "the armored cruiser [specifically, the battlecruiser] is the only ship that can meet the qualifications of speed, endurance, size, and fighting power" required of naval scouts.⁷⁹ The 2nd and 4th Committees agreed on the attributes of the ships, but warned that they had "a place in the line of battle" that would prevent them from being assigned to the detached duty necessary for satisfactory scouting.⁸⁰ Splitting the difference, the Reconciling Committee's report, eventually adopted by the entire Conference, saw a role for heavy cruisers in scouting, but noted that as one new heavy cruiser would cost at least as much as 4 smaller scouts, it would be a mistake to hope for an all-battlecruiser scouting fleet.⁸¹

The Conference's report regarding the eventual size and disposition of the fleet also returned a pro-battlecruiser verdict. A previous stab at the question in 1904 had suggested a ratio of 2:3 between armored cruisers and battleships, but the Reconciling Committee and the Conference as a whole revised the ratio in light of the German and Japanese fleets, recommending instead the same 1:2 ratio that the General Board had laid out in their 1903

⁷⁸ "Report of the Conference on Question 20," [September] 1909, *1909 Conference, Volume I*, RG 12, NHC, 252.

⁷⁹ 1st and 3rd Committees, "Report on Question 14," [July] 1909, *1909 Conference, Volume II*, RG 12, NHC.

⁸⁰ 2nd and 4th Committees, "Report on Question 14," [July] 1909, *1909 Conference, Volume II*, RG 12, NHC.

⁸¹ "Reconciling Committee on Question 14," September 4, 1909, *1909 Conference, Volume II*.

building program memo. Considering Germany the greater threat, the Conference set a goal of a fleet large enough to defeat a projected German battle fleet of 42 battleships in 1917. Granting the U.S. a margin of superiority around 25%, the Conference concluded that by 1917, the U.S. Navy should consist of 54 battleships, which required the construction of 25 battleships over the next seven years. The 1:2 ratio would give the U.S. a strength of 27 armored cruisers, the 17 new vessels all being battlecruisers.⁸²

This was, to say the least, an ambitious building program. As the Conference was surely aware, no Secretary of the Navy would be bold enough to request six capital ships a year for the next seven years, and Congress, which blanched at funding *two*, would never approve such an outlandish program of construction. By way of comparison, the landmark 1916 bill called for sixteen ships started over a period of five years. Still, this report shows that, given an essentially unlimited amount of money, there was some support for building battlecruisers in the U.S. Navy. As minor as that sounds, it represents something of a change from the official Navy of 1906 which apparently would have preferred to put all available funds into orthodox battleship construction rather than “wasting” it on cruisers.

The most important question, however, was Question 20, dealing with the design of a hypothetical fast capital ship.⁸³ The reports themselves will be considered below, but before delving into them, it is worth pointing out the rider that the Conference voted to attach to their final report:

RESOLVED: That in the opinion of the Conference, the use of the word "battleship" should be confined to the heavily armed and armored ship on which the issue of any

⁸² “Reconciling Committee on Question 17,” September 2, 1909, *1909 Conference, Volume II*.

⁸³ The question reads: “With reference to fast battleships (cruiser battleships) of a given displacement and speed, consider the relative value of a powerful battery with limited protection and a moderate battery with heavy protection.”

action must ultimately depend; and that instead of such terms as cruiser-battleship, reciprocal, low-power battleship, fast battleship, or other equivalent coined word or combination of words, the term "armored cruiser" should be used.⁸⁴

Reading this, one is struck by how many names were in common usage to describe a fast capital ship, somewhat unusual for types of warship, which tend to have one widely accepted name. The bewildering number of terms gives some sense of the confusion that heralded the arrival of battlecruisers to the U.S. in 1906. Tellingly, while the Royal Navy settled on "battle cruiser" as the official term for the vessels, the 1909 Conference eschewed any attempt to equate them with battleships. In the United States, battleship orthodoxy remained supreme, and while there were, as we will see, officers who thought that faster ships had a role to play alongside dreadnoughts, their place in the American understanding of naval warfare would, for the near future, remain secondary.

On Question 20, the two committee reports endorsed ships on either extreme of the question. The 1st and 3rd committees were willing to compromise on the number of guns to allow more weight for engines, so long as the caliber of those guns remained large and the armor remained as thick as that on contemporary battleships. Essentially, then, their report hearkened back to the 1904 design, judging armor to be more important than sheer firepower in securing the safety of a fast adjunct to the fleet. Although the report acknowledged the use of such ships for scouting, their real purpose was to fight in the line and, perhaps, to serve in a fast wing across the head of an enemy column.⁸⁵

⁸⁴ "Resolution of the Conference on Question 20," [September], 1909, *1909 Conference, Volume I*, 251. Oddly enough, Friedman (*U.S. Cruisers*, 61-2), who discusses these reports at some length, cites them as coming from 1908. Presumably this is a transcription error on the part of the publisher: the Summer Conference of 1908 was interrupted by the Battleship Conference and never produced a full set of conference reports. Unfortunately, *U.S. Cruisers* lacks footnotes or endnotes, so it is impossible to identify the source of the error. See also John B. Hattendorf, *Sailors and Scholars: the Centennial History of the U.S. Naval War College* (Newport, RI: Naval War College Press, 1984), 62-3.

⁸⁵ "Report of the 1st and 3rd Committees on Question 20," August 12, 1909, *1909 Conference, Volume II*, NHC.

On the other hand, the 2nd and 4th Committees backed a “heavy battery with lighter armor.” As the report freely admitted its “fast battleships,” essentially battlecruisers on the British, or perhaps German, models would be at a disadvantage when trying to cap a column of opposing battleships, but such a role was unlikely. As the British, German, and Japanese fleets all possessed ships that could form a “fast wing,” in battle the role of the American ships would be to fight with their counterparts, in the line of battle, but not necessarily against battleships per se. While scouting, a battlecruiser’s higher firepower would give it a better chance of piercing an enemy screen, whose ships would be hard-pressed to get in range of a battlecruiser, let alone wound it.⁸⁶

The Reconciling Committee, then, was faced with the prospect of trying to merge two incompatible views on design. The committee’s majority report mirrored the stance of the 1st and 3rd Committees in favoring a moderate battery with heavy protection. Commander C.S. Williams’s Minority Report, however, heaped scorn on the idea of the, in his words, “low-power battleship,” which, with fewer guns, would present an unforgiveable diminution of a fleet’s firepower. Given the fiscal environment in Congress, Williams foresaw these vessels being appropriated as battleships and eventually forced into line against ships of equal protection and far superior firepower. While Williams made it clear that he did “not favor obtaining increased speed [by] reducing either her gun power or her armor,” if such ships were to be built, they should be of the heavy battery/light armor type, which he called a “heavy armored cruiser.”⁸⁷

⁸⁶ “Report of the 2nd and 4th Committees on Question 20,” August 9, 1909, *1909 Conference, Volume II*.

⁸⁷ Cmdr. C.S. Williams, “Minority Report on Question 20,” September 8, 1909, *1909 Conference, Volume I*, 261-8.

The extent to which Williams's case rested on the semantic difference between a "low-power battleship" and "heavy armored cruiser," is a fascinating example of the power that naval officers assigned to a ship's classification.⁸⁸ In Williams's mind, one of the key dangers of the heavy armor/small battery ship was that it would be classified as a sort of battleship and sap the battleship strength of the Navy. Presumably, then, his dividing line between battleships and cruisers was based on armor; the "low-power battleship" could stand up to a pounding that the armored cruiser could not meet.

Faced with the two reports, the Conference as a whole adopted Williams's reasoning, although the final Conference report on Question 20 took a more positive view of the ships than Williams. According to the Conference, the "heavy armored cruiser" was superior to the heavy armor/small battery ship in scouting and pursuit, while both types were equally useful for screening and while the more heavily armored ship was, perhaps, better at heading off an enemy column, it was a role that either could fill. Evidently, more weight was assigned to the scouting and screening missions of the ship, because the report took pains to point out that while these speculative vessels *could* be used in the thick of the melee, "they are not intended to fight in the line against full power battleships," putting them firmly in the armored cruiser category. This statement perhaps explains the Conference resolution quoted above to ensure that these and other similar vessels were placed firmly in the cruiser category.⁸⁹

Interestingly, the Conference's final report also made a new point neither original committee report touched on. On the assumption that both ships represented a deviation from

⁸⁸ A dubious distinction at best. Either type of ship would be at least as expensive as a dreadnought battleship, and Congress was unlikely to be swayed by minutiae of class or mission in appropriating funds for new construction.

⁸⁹ "Report of the Conference on Question 20," 256.

the battleship type rather than an evolution of the armored cruiser, the final report argued that the reduction in firepower between a standard battleship and a “low-power battleship” was a known quantity. On the other hand, the loss in protection from lighter armor was an unknown quantity, both because firepower played some role in protection and because the precise value of a given weight of armor was impossible to quantify.⁹⁰

The end of the year planning documents from Washington highlight the lack of formal policy influence the Conference possessed. As usual, the Summer Conference remained in front of the Secretary and General Board on the subject of battlecruisers. Again, the Board declined to request battlecruiser construction, while the new Secretary of the Navy, George von Lengerke Meyer, merely noted in his annual report that the “so-called ‘armored cruiser[s]’” building abroad were really fast battleships, a rather pointed inversion of the Conference’s insistence that these ships were cruisers.

By the end of 1909, the U.S. Navy’s unwillingness to replace armored cruisers stood out. The U.S. joined the other major naval powers in rejecting pre-Russo-Japanese war type armored cruisers, but it remained the only one that had not settled on a replacement. Japan had, for the time being, focused on proto-battlecruisers of the *Tsukuba* type while Britain, of course, had developed the battlecruiser type. Initially, Germany had responded with *Blücher*, a uniform-battery cruiser with medium caliber guns. Now the German navy was in the midst of building *Von der Tann*, built to the same general template as *Invincible*, with more armor and somewhat more speed.

At this point, four options dominated American discourse on fast capital ships. The first was to mimic the British *Invincible*, perhaps mitigating the lack of armor that many

⁹⁰ “Report of the Conference on Question 20,” 256.

American officers found problematic. This was the solution suggested by the 1909 Conference. The next three were domestic solutions, not yet tried abroad. The first of those was Schofield's torpedo battleship, which had risen to the level of consideration by the War College, the General Board, and the Secretary. Although it seemed moribund by 1909, some lingering attachment to it remained, and it would resurface again in 1912. Next came an updated version of the 1904 Conference's reciprocal, the "low power battleship," of high speed, heavy armor, and a somewhat reduced main battery favored by the 1909 Reconciling Committee, and imperfectly reflected in the Japanese *Tsukuba*. Lastly came Fiske's "compromiseless ship"; the suggestion that given enough displacement, ideal speed, firepower, and armor could be achieved, albeit at great expense, a solution that pre-figured the *Queen Elizabeth*-class battleships the post-Fisher Admiralty would build in lieu of more battlecruisers.

As the 1909 Conference suggested, opinion was beginning to coalesce around the battlecruiser option, if a fast capital ship were needed (a point that there was, as of yet, no movement on from the Secretary or General Board). Still, there was not yet a consensus on *what* such a ship would do. It was recognized that a fast capital ship was admirably suited for scouting and screening or the fast wing role and could, perhaps, serve in the line, but it could not fulfill all three roles simultaneously. Even if the Board and Secretary acquiesced in their construction, there would never be enough to parcel out for two or three separate missions. As the Navy moved into 1910, there was wide agreement that the U.S. could find a use for such ships if built, but there was no general on the wisdom of building them or on which use they would be turned to.

The end of the decade was rather more exciting on the other side of the Atlantic. Fisher had spent most of his tenure in office feuding with critics in and out of the Navy and by 1909, his most ardent critics had managed to turn him into a figure of political controversy and a possible liability to the government. Smelling blood, they moved in for the kill. In early 1909, the Admiralty had removed Admiral Charles Beresford from command of the Channel Fleet. Beresford, who had served as a Conservative MP from the 1870s through 1903 in parallel with his naval career, was able to turn his dismissal into a party political issue, forcing a CID inquiry onto the Admiralty. Although the inquiry more or less exonerated the Admiralty and Fisher, his position had become untenable, and he was forced to resign on January 25 1910, to be replaced by Arthur Wilson.⁹¹

The trouble started in 1907, when Beresford was shown part of the War Plans document, and told that it was the preferred Admiralty approach to war, though the document was never presented to Beresford as an order. By this point, Beresford was firmly attached to the anti-Fisher opposition. Despite being consulted during the initial design process, Beresford had been one of the earliest critics of Fisher's new capital ships.⁹² In 1906, his advocacy in favor of the 6" intermediate battery over 12" guns, based on the Mediterranean Fleet's battle practice, forced a direct rebuttal from Jellicoe, the Director of Naval Ordnance

⁹¹ Marder, *The Road to War*, 188-205.

⁹² "Report of the Committee on Designs, 1905," (London: HMSO, 1905), RIC/4/2/1, Caird Library, 42. Another "planning" document primarily intended for consumption by members of the press, Parliament, and Whitehall policymakers rather than an honest account of Admiralty deliberations. The mention of Beresford was presumably included to forestall attacks of the nature he eventually made; there is no evidence that any serious attention was paid to his opinions.

in the “Designs of Armoured Ships” pamphlet.⁹³ Beresford was also an implacable foe of armored cruisers of all stripes, believing them a mistaken concept.⁹⁴ The fact that Beresford considered himself a candidate for the First Sea Lord role held by Fisher certainly did not help. .

Now in command of the Channel Fleet, Beresford resented both the implicit check on his own authority to use his fleet as he wished, and the approach that the War Plans took. In particular, Beresford seems to have been briefed from the report’s plan “A,” which mostly nearly approximated the opinions of the Ballard Committee.⁹⁵ The plans, developed for a fleet with *Dreadnought* in active service, but none of the *Invincibles*, sheds little light on Admiralty plans for the new battlecruisers, but highlights again the disconnect between the views of the “Fishpond” and the rest of the Navy.

Plan “A” proposed a war with Germany revolving around economic warfare, rather than a clash of fleets. According to the plan, “a cordon of unarmoured vessels would be established” in the English Channel and Scotland-Norway gap to ensure “the total exclusion of shipping under the German flag from all ocean trade.” The North Sea cordon would be supported by a force of armored cruisers, while the main force of battleships would be stationed at the Humber, about halfway up the East Coast of England, able to support either cordon. Cruisers stationed abroad would sweep the seas of German commerce.⁹⁶

After taking some time to consider the plans, Beresford sent the Admiralty an extended critique, saying that they “must have been written by some Essayist for some

⁹³ Jellicoe, Memorandum, December 19, 1906, *Designs of Armored Ships*, 9-10.

⁹⁴ Marder, *The Road to War*, 97.

⁹⁵ N. Lambert, *Planning for Armageddon*, 75-77.

⁹⁶ Admiralty, “War Plans,” early 1907, in *Fisher Papers*, Vol. II, 372-83.

Lecture.” In particular, Beresford seems to have taken exception at their assumption that German commerce ranked above the German fleet as a target. His stance was common for a senior officer of the day, but the way in which he made his argument was intemperate, to say the least. He reserved special scorn for the sections dealing with cruisers calling them “[a]bsolutely incorrect.”⁹⁷ Beresford’s arguments may have been sharpened by Vice Admiral Reginald Custance, his second-in-command, and another opponent of Fisher’s policies.⁹⁸

Understandably, the Admiralty was upset with Beresford’s missive. Beresford, they claimed, had made a series of inappropriate, insubordinate complaints to the board, “the tone of some of them being . . . unusual and improper.” They also took exception at his attempt to write a new war plan, which called for the use of more vessels than the Royal Navy actually possessed. Beresford, the memorandum alleged, believed that his new posting “carried with it the plenary powers of an admiralissimo.” Furthermore, if the Admiralty failed to do his bidding, the Board’s memo alleged that Beresford threatened to spearhead a *political* attack on Admiralty policy.⁹⁹

The situation became so contentious that Beresford was called in for a meeting at the Admiralty in July, where the Board described Beresford’s part as “a series of clumsy fencings, evasions, and dodgings . . . often contradictory.”¹⁰⁰ After being sidelined and marginalized by the Board, which suggested that Wilson would be recalled from retirement

⁹⁷ Beresford to Board of Admiralty, May 8, 1907, ADM 116/1037, TNA.

⁹⁸ Marder, *Road to War*, 91. Custance and Beresford disliked each other; Fisher thought that sending Custance to the Channel Fleet would prove a burden to Beresford. To his chagrin, the two men were able to bury the hatchet in service of their mutual distaste for Fisher. In this, they were joined by Beresford’s chief of staff, Captain Doveton Sturdee.

⁹⁹ Admiralty Board, “War Arrangements,” June 1907, ADM 116/3108, TNA. To be fair, this is precisely what happened.

¹⁰⁰ Meeting Notes, July 5, 1907, ADM 116/3108.

and given the overall active command in the event of war, Beresford did indeed turn the matter into a political football, intensifying widespread discontent with Fisher amongst conservative (and Conservative) naval officers and journalists.¹⁰¹ From 1908, Beresford's allies called for a highly damaging inquiry into Admiralty policy, a call that only intensified after Beresford was removed from command in early 1909.

Despite the cloud hanging over the Admiralty, normal work continued in the midst of the back and forth between supporters of the Board and Beresford partisans. In mid-1907, the 1908-09 program was set at one battleship and one armored cruiser. Crucially, this cruiser represented something of a step back after the *Invincibles*: the particulars of the new cruiser were similar to the German *Blücher*, as well as Fisher's very first battlecruiser plans; 25-knot ships with 6" belt armor and 8x9.2" guns for a main battery.¹⁰² This climb down was probably due to the Cabinet's desire to reduce naval costs, or at least keep the trend line flat.¹⁰³

By the end of March 1908, though, the Admiralty had received permission to build a follow-on to the *Invincibles*, rather than another armored cruiser. Part of the credit or blame can be assigned to the Chancellor of the Exchequer, H.H. Asquith, who mistakenly told Parliament that month that the Admiralty was planning to build a battleship and a "battle-cruiser" in the coming year.¹⁰⁴ Asquith's blunder may have given Fisher cover, but there were

¹⁰¹ Marder, *The Road to War*, 212.

¹⁰² Admiralty Board, "Notes of Discussion Relative to New Vessels to be Laid Down in 1908-9," June 12, 1907, ADM 167/41, TNA.

¹⁰³ N. Lambert, *Fisher's Naval Revolution*, 139.

¹⁰⁴ N. Lambert, *Fisher's Naval Revolution*, 141-2.

also concerns about German construction: the *Kaiserliche Marine* had followed up the *Blücher* with plans for a battlecruiser to match British construction.¹⁰⁵

By March 31, Director of Naval Construction Philip Watts presented the Board with what he called a “new ‘Invincible.’” After the tremendous increase in power made with the *Invincible*, the new ship—the future *Indefatigable*—represented something of a return to normal patterns of design and construction, and the new designs simply refined the *Invincible* model rather than setting a new standard. The wing turrets were given greater arcs of fire, the ship was lengthened, and the weights tweaked, but the result was the same: a 25-knot warship with eight 12” guns. With no foreign battlecruisers to contend with, Fisher and the Admiralty were evidently content to stand pat with their new design.¹⁰⁶

Trouble, though, was brewing on the other side of the North Sea. While the British design was being finalized, the German Navy had laid down their first real battlecruiser, *Von Der Tann*. Faster and more heavily armored than *Invincible*—almost to the level of British battleships—the German design was a far more capable ship than *Invincible* or *Indefatigable*, which would not even be laid down until February 1909. Fisher’s prediction that it would take foreign navies years to come to grips with the battlecruiser concept was true, but the assumption that British designs would remain ahead of their rivals was proving tenuous.

Von der Tann was a perfect illustration of the risks the Royal Navy ran by trying to get in front of the innovation curve. On one hand, Fisher’s designs had forced a global construction freeze as rivals made sense of the new ships, but on the other, by setting a benchmark the British gave other navies a defined set of specifications to meet or surpass.

¹⁰⁵ Sumida, *In Defence of Naval Supremacy*, 158-9.

¹⁰⁶ Philip Watts, “Particulars of proposed new ‘Invincible,’” March 31, 1908, ADM 116/1013A, TNA.

This very dynamic, as shown in the Franco-British armored cruiser competition of the previous decade, is precisely why the Royal Navy's traditional policy was one of letting *other* navies suffer the teething problems of innovation while relying on production efficiency and resources to swamp the competition in production of mature types. By complacency in the *Indefatigable* design this problem was exacerbated; not only had the Royal Navy missed a chance to maintain its qualitative lead, but tightening resources were put into a ship that would be outclassed from its commissioning. *Invincible* and *Dreadnought* may have shocked rivals into a construction freeze, but what was the four year period separating *Invincible* and *Indefatigable's* successor, if not a virtual design freeze?

This should not have caught the Royal Navy unaware. By September 1907 the Naval Intelligence Department had already noted that the Germans had a preliminary design, "F," that was anticipated to cost £440,313 more than the *Blücher*.¹⁰⁷ This increase, greater than the price difference between *Invincible* and *Minotaur*, must have aroused some sort of suspicion at the Admiralty during deliberations over the 1908-9 budget, but it evidently did not affect planning. Instead of taking the six months between the intelligence report and the unveiling of the preliminary German design to shift the goalposts again, the Board elected to stand pat.

With the chance to remain ahead of the competition missed, the next crucial point for the Royal Navy came in the summer of 1909 when the Dominion governments met in London to discuss imperial defense. The Australia and New Zealand governments had both agreed to donate dreadnoughts to the common defense as a result of the 1909 "dreadnought crisis," and the lower house of the Canadian Parliament had passed a resolution authorizing

¹⁰⁷ Naval Intelligence Department, "Foreign Naval Progress and Estimates, 1906-7," September 1907, ADM 231/48, TNA, 56-7.

the construction of an independent Canadian Navy. This meeting, requested by the Australian government represented a chance for the Dominions and the Royal Navy to coordinate on strategies and construction priorities.¹⁰⁸

More than any other official documents from the later years of his first stint in office, the records from this conference gives a sense of Fisher's mature strategic vision. To all three Dominion governments, he urged the purchase of a "vessel of the 'Indomitable' [*Invincible*] class." By the time of the Conference, it was clear that the New Zealand and Canadian donations would go into the Royal Navy while the Australian ships would serve as the nucleus of a local navy under Dominion control. In conversations with the Australians, Fisher seized on this point, arguing that a battlecruiser was the perfect ship to stiffen the spine of the light cruisers, destroyers, and submarines that would make up the Australian Navy, a "citadel . . . round which the smaller vessels" could rally. In theory, an Australian battlecruiser would make short work of any German armored cruisers, the largest warships the Germans could possibly spare from the North Sea.¹⁰⁹ To put it into Corbett's terms, these ships would help Britain utilize the control of the sea won by a superior battle fleet in Europe.

To the Canadians and New Zealanders, Fisher made much the same argument, projecting the New Zealand battlecruiser on the China station, and the Canadian ship in British Columbia, each supported by a "fleet unit" of small cruisers, destroyers, and submarines contributed by the Dominions. Tellingly, the Pacific Ocean in 1909 was almost

¹⁰⁸ Donald C. Gordon, "The Admiralty and Dominion Navies, 1902-1914," *The Journal of Modern History*, Vol. 33, No. 4 (Dec. 1961), 411-12.

¹⁰⁹ Imperial Conference Secretariat, "Notes of Proceedings of Conference at the Admiralty," August 11, 1909, ADM 116/1100B, TNA, 2-5.

entirely free of potential enemy capital ships. Japan remained bound by the alliance, the United States had recently shifted their entire battleship strength to the East Coast, and Germany maintained little more than a small cruiser squadron at Tsingtao. This plan, then, was the culmination of Fisher's ruthless downsizing program upon assuming office. Rather than relying on a motley collection of old battleships and cruisers, Fisher's plan for the control of the entire Pacific Ocean rested on three battlecruisers and a relative handful of support ships. After the conference, Australia and New Zealand both appropriated funds to build "their" battlecruisers in British yards, while the Canadians declined, concentrating instead on building up a squadron of smaller vessels on each coast. The Dominion battlecruisers, however, would be sister ships to the *Indefatigable* rather than the expensive new *Lion*-class introduced in the 1909-10 Navy budget.

Hand-in-hand with his proposals for battlecruisers roaming the Pacific was Fisher's increasing pessimism about the survivability of large ships in narrow seas set on by packs of torpedo-armed destroyers and submarines. An Admiralty memorandum from April 1909, presumably written by Fisher or with his heavy input, predicted a "complete approaching revolution," in which the North Sea would be rendered unsafe for large warships by the widespread use of small ships with torpedoes.¹¹⁰ Theoretically, this was another data point in Fisher's crusade to end battleship production and placing Britain's navy in hands of pelagic battlecruisers and swarms of small combatants in restricted waters. By 1909, though, it was clear that Fisher's opinions would never be enacted unaltered, but it still gives some indication of his state of thinking.

¹¹⁰ [Fisher?], "The Submarine Question," April 1909, FISR 5/13, Churchill College Archives Centre, 1-3.

The next British battlecruiser, the last designed under Fisher's guidance, was the major leap missing in the *Indefatigable* and her sister ships *Australia* and *New Zealand*. The 1909-10 program battlecruiser was originally intended to be another *Indefatigable*, but the parameters of the *Von der Tann*, and rumors of the next German battlecruiser, *Moltke*, convinced the Board to accept Fisher's desire for a remarkable leap in speed and power over both of the German designs. Armed with 13.5" guns instead of the 12" guns of *Indefatigable* or the 11" guns of *Von der Tann*, and with a designed speed of 28 knots, Fisher intended the next battlecruiser, HMS *Lion*, to provide a shock comparable to the original *Dreadnought* and *Invincible*, freezing German construction again.¹¹¹

As with *Invincible*, Fisher faced some pushback from within the Admiralty. Fisher had wanted all eight large warships of the 1909-10 program to be *Lion*-class battlecruisers, but he was prevented from doing so by the Board, especially the Second Sea Lord, Vice Admiral Francis Bridgeman-Bridgeman, who kept the ratio at two battlecruisers against six battleships. Bridgeman, who had been in charge of the initial tactical trials for the *Invincible*-class, came out of them convinced that battlecruisers "must never be considered as dreadnoughts," and were merely large armored cruisers.¹¹² Bridgeman's sentiments—he would become First Sea Lord in 1911—would have serious consequences for the British battlecruiser program down the road, but for now, all he could do was prevent Fisher from entirely switching capital ship construction over to battlecruisers.

¹¹¹ Sumida, *Defence*, 160-2. Sumida credits Bacon, then Director of Naval Ordnance, and Jellicoe the 3rd Sea Lord/ Controller for influencing Fisher's decision. Jellicoe himself claimed in his unpublished memoirs that the decision to change the design of *Lion* was his alone, based on information he had obtained from a private source, and that Naval Intelligence remained convinced that *Moltke* would be a near-clone of *Von der Tann* (*Jellicoe Papers*, 13-4).

¹¹² Bridgeman quoted in N. Lambert, "Admiral Sir Francis Bridgeman-Bridgeman," in *The First Sea Lords: From Fisher to Mountbatten*, ed. Malcom H. Murfett (Westport, CT: Praeger, 1995), 60.

While Bridgeman was able to keep the battlecruisers in the 1909-1910 program down, he had no discernable impact on their design, which crept towards “fast battleship” status. Despite maintaining the same basic qualities as *Invincible*—high speed, heavy guns, light armor (9” at the belt)—*Lion* and, to a lesser extent, the German ships, represented a dramatic change of capability for battlecruisers. Since the *Dreadnought*, battleship speeds had stayed reasonably consistent at 20-21 knots. Battlecruiser speeds, however, had gone from the 24 knots of *Invincible* to 28 knots, increasing their speed advantage over the battle line, while the change in armament allowed for even greater offensive power. In fact, *Lion* was approximately 8,000 tons heavier than *Indefatigable* and 4,000 tons heavier than the *Orion*-class battleships that joined it in the 1909-10 program. Generating 70,000 horsepower and displacing 26,000 tons, *Lion* was certainly an impressive ship, and one that Fisher thought would start the migration from battleship to battlecruiser.¹¹³

It is here, Andrew Gordon has argued, that British battlecruiser policy went off the rails: “[t]he issue of exactly what the *Lion* class and *Tiger* were built for is a tricky one: they were thoroughly armoured for fighting armoured cruisers, but still inadequately so for their fellow battle cruisers. . . . Thus is illustrated the ephemeral nature of Fisher’s original battle cruiser theory.”¹¹⁴ Gordon’s critique is somewhat unfair. The issue of whether or not the *Lions* were underarmored is a tricky one, but their armor distribution was not an oversight or mistake. By 1909, Fisher appears to have lost all semblance of trust in heavy armor. Armor protection could, of course, be maintained against the smaller guns of older armored cruisers, or the flotilla, but against battleship weapons, the only answer was not to be hit in the first

¹¹³ Sumida, *Defence*, 162.

¹¹⁴ Andrew Gordon, “1914-18: The Proof of the Pudding” in *British Naval Thinking*, 96-7.

place. Rather than trading blows, the key to battle would be overwhelming enemy ships with a flurry of hits before they could respond. Based on those assumptions, the armor of the *Lions* was more than adequate.¹¹⁵

A public case for Fisher's pro-battlecruiser/anti-armor stance was made by Reginald Bacon, formerly the first captain of *Dreadnought*, and one of Fisher's most trusted deputies. Shortly after Fisher's exit in early 1910, Bacon, recently retired from the post of Director of Naval Ordnance, delivered a speech on "The Battleship of the Future," to the Institution of Naval Architects, likely expressing sentiments he had held during *Lion's* redesign. His speech took as its basis Fisher's argument that the development of torpedoes and mines had turned the present battleship "merely into a vessel for fighting other battleships," and one ill-suited for fighting them under the conditions of modern warfare.¹¹⁶ Furthermore, the rapidly increasing power of naval artillery made designing armor proof against new guns developed "in the reasonable future" an impossibility.¹¹⁷ What, then, would future battleships look like?

According to Bacon, the answer required a radical rethinking of the battleship paradigm. Armor, increasingly useless, could be done away with. In the absence of linear tactics, battle would degenerate into a series of "duels" between individual ships or squadrons. In this new environment, high speed would be essential and the battleship would take the form of "a large armoured cruiser," in short, a battlecruiser, with "attendant torpedo

¹¹⁵ Sumida, *Defence*, 160-2. In reality, the flaw in Fisher's theory was the poor accuracy of long-range fire (though he probably underestimated the utility of heavy armor). The issue will be discussed at greater length in Chapter 5, but British gunnery during the First World War was woefully inaccurate.

¹¹⁶ Reginald Bacon, "The Battleship of the Future," *Transactions of the Institution of Naval Architects*, Volume 52 (1910), 2.

¹¹⁷ Bacon, "Battleship of the Future," 3.

craft.”¹¹⁸ These sentiments, which Fisher certainly shared, explain his seeming unconcern about the armor protection of his new *Lions*.

Of course, if all of this were true, why did the Royal Navy continue to build battleships? In the 1909-10 program, the battlecruiser *Lion* and the battleship *Orion* were conceived with the same role in mind: to be the most powerful ship in a fleet, and serve as citadels around which other classes of vessels could perform their vital work. *Orion* was designed for the linear tactics of the day, while *Lion* was intended to provide better service in what Fisher and Bacon thought would be the modern battlespace, swarming with threatening torpedo boats and submarines. Both visions could not be right: if the theories behind the *Lion* were correct, *Orion* was useless, and if the traditionalists were, *Lion* was unnecessary. Instead of resolving this dispute, the Admiralty Board threw a bone to both camps, giving Fisher some of what he wanted, while ensuring that Britain continued to build battleships.

This dispute was one that a war staff or a more robust war college system could have mediated, pushing the Royal Navy in the direction of backing one vision or another. If so, that direction would probably have been towards the traditional reliance on battleships and linear tactics. Setting aside any discussion of the correctness of Fisher’s vision, those ideas were shared by very few officers in the Royal Navy, and almost all of those were personally connected to him in some way.¹¹⁹ Amongst the great mass of Royal Navy officers, including those in day-to-day control of its battlecruisers, Fisher’s plans for the type were simply unknown.

¹¹⁸ Bacon, “Battleship of the Future,” 9.

¹¹⁹ At the same time, many officers with a connection to Fisher, like Jellicoe, retained their faith in the battleship model of naval strategy.

By mid-1909, the first three battlecruisers were in commission, and assigned to the First Cruiser Squadron of the Home Fleet. However, the diary of Herbert Richmond, now captain of *Dreadnought*, and Home Fleet flag captain, contains complaints about maneuvering with “Invincible [and] this mixture of ships with such different qualities . . . bad in a squadron.”¹²⁰ Context suggests that Richmond’s complaints had to do with maneuvering *Dreadnought* alongside *Invincible* and her sisters, but the issues with the new ships were equally acute when sailing in formation with, respectively, pre-dreadnoughts and orthodox armored cruisers. With different speeds, and different armaments optimized for combat and different ranges, creating a one-size-fits-all tactical combat plan would have been almost impossible until there were enough dreadnoughts and battlecruisers to form homogenous squadrons in 1911.¹²¹

The Home Fleet commander, William May, seems to have had little to say on the matter; at least according to his flag captain, Herbert Richmond (“He has the haziest idea of strategy. . . . He never himself prepares the cruiser exercises . . . he reads them [and] doesn’t understand them.”).¹²² Likewise, the First Cruiser Squadron commander, Stanley Colville, seems to have given little thought to the new capabilities of his ships. Richmond laid this state of affairs at the feet of the Admiralty: “it seems to me that some doctrines are wanted, laying down, by reasoned argument, the functions the Admiralty propose of each class of

¹²⁰ Richmond Diary, April 8, 1909, RIC/1/8.

¹²¹ N. Lambert, *Fisher’s Naval Revolution*, 213-4.

¹²² Richmond Diary, April 24, 1910, RIC/1/8.

vessel. As it is, it is simply a jumble without form.... No methods of using cruisers [sic] or destroyers exist.”¹²³

As discussed earlier, Fisher was fond of misleading critics, the Cabinet, and the Navy at large as to the real rationale behind his proposals. Doing so allowed him to get more of his policies passed, but at great cost to the Royal Navy’s intellectual and doctrinal well-being. By Fisher’s departure in early 1910, how many of the men stationed on one of Fisher’s battlecruisers, or helping to direct a squadron or fleet of them understood just what exactly their purpose was? To belabor an obvious point, this was another negative consequence of Fisher’s single-handed revolution, which transformed the Royal Navy’s material circumstances without altering its thought.

Neither the *Lion* nor Bacon’s speech went unnoticed in the United States. Building on the intense debate over battlecruisers at the previous year’s Summer Conference, 1910 was a bumper year for the discussion of battlecruisers in the United States. In Newport, officers attached to the Naval War College conducted game board exercises involving battlecruisers, while the ships were again a topic of rich discussion at the Summer Conference. In Washington, Secretary George von Lengerke Meyer was sufficiently moved to commission a series of sketch battlecruiser designs from the Bureau of Construction and Repair, and at the end of the year, both the General Board and the Secretary discussed the ships at length in

¹²³ Richmond Diary, May 2, 1909, in *Portrait of an Admiral*, ed. Arthur Marder (Cambridge, MA: Harvard University Press, 1952), 48-9.

their annual reports. Still, lasting consensus and concrete action remained impossible to come by.

One of the more interesting submissions in this debate came from Naval Constructor David W. Taylor, who gave a talk on foreign developments in design over the summer at Newport, using Bacon's comments as a foil. Taylor, who would go on to run the Bureau of Construction and Repair during the First World War, was baffled by Bacon's reasoning which contained some "peculiar ideas as to armor protection."¹²⁴ In line with most American officers, Taylor was unwilling to declare armor useless. Indeed, Taylor found Bacon's designs positively dangerous, leaving too much to chance in an artillery duel between relatively unarmored ships. Instead, he argued, the United States needed "vessels that can take as well as give punishment, vessels that will stand punishment long enough to give superior skill a chance to win always." Such a ship might be expensive—Taylor threw out a figure of \$17-18 million, rather more expensive than current US battleships—but Taylor was convinced it was the only "common sense solution." The alternative, too horrible for him to contemplate, was to follow the British lead and build "giant destroyers of 35 knots speed . . . and convert naval warfare into a kind of enormous game of hide and seek."¹²⁵

Elsewhere in the U.S. Navy, officers *were* playing games with battlecruisers. Lieutenant Commander Ridley McLean, an officer attached to the General Board, utilized evidence from the game board in an analysis of *Invincible*-type ships as a fast wing.¹²⁶ As he

¹²⁴ Naval Constructor D.W. Taylor, "Reflections upon Contemporary Battleship Design, "Summer, 1910, RG 4, Box 112, Folder 9, NHC, 11.

¹²⁵ Taylor, "Reflections," 49-50.

¹²⁶ A guide to the tactical game, published in the proceedings of that year's Conference (1910 Summer Conference, volume III, RG 12, NHC) grants battlecruisers a speed of 25 knots and 2/3 the "fighting value" of a dreadnought battleship. That value was equivalent to that of a late pre-dreadnought; an interesting value, given that extant battlecruisers had up to twice as many heavy guns as those battleships.

put it, the question at hand was if a fleet of sixteen *Delaware*-class battleships and four battlecruisers could defeat a homogenous fleet of twenty *Delawares*.¹²⁷ McLean found that the fleet with battlecruisers would indeed win a hypothetical matchup, commenting that in the event of a battle against a foe with battlecruisers, the United States would be “severely handicapped if we did not have a fast wing to oppose it and hold [them] in check.” In the end, McLean endorsed a squadron of battlecruisers as “a more valuable addition to a fleet of sixteen,” than a squadron of battleships.¹²⁸ In other words, rather than battlecruisers being a *replacement* for battleships, the view of Fisher and some of his circle, McLean found that their value lay mainly in a fleet already well-supplied with battleships.

Lieutenant Commander C.T. Vogelsang, an instructor at the War College, took a dimmer view of the fast wing mission. Utilizing the same thought exercise as McLean, Vogelsang came to the opposite conclusion: the side equipped with a fast wing would lose under normal battle conditions, with both fleets cruising in column. Simply by forcing combat, the admiral of the homogenous fleet would give his opponent “the option of accepting the battle with the speed of its [battlecruisers] neutralized and at a disadvantage as to armament or protection,” or fighting without the battlecruisers as they looped around, outside of fighting range, to the head of the opposing column.¹²⁹

¹²⁷ Lt.Cmdr. Ridley McLean, “Armored Cruisers, Notes on Design and Suitable Types,” [Spring/Summer?], 1910, RG 8, Box 113, Folder 5, NHC, 1-2. McLean was at the Summer Conference in 1910, and the piece appears in the archives at Newport. McLean’s analysis makes no reference to the Conference’s conclusions or debates with regard to battlecruisers, suggesting that this study was produced prior to the Conference or at Newport before formal committee reports were submitted.

¹²⁸ McLean, “Armored Cruisers,” 3-6.

¹²⁹ Lt.Cmdr. C.T. Vogelsang, “The Value of Superior Speed in its Relation to Tactics and Strategy,” [Summer] 1910, RG 8, Box 106, Folder 7, 25-7. The wording of the report’s title and its contents suggest that Vogelsang wrote the paper either as preparation for the year’s Conference or as a preliminary statement of views before the drafting of the formal committee reports.

However, Vogelsang was not an anti-speed zealot on the level of Riggs or some of the more conservative elements of the fleet. To Vogelsang, building battlecruisers for the purposes of a fast wing was “to do violence to a principle that has brought . . . much glory to the flag,” but he recognized the potential utility of such ships as advance scouts or screens, noting its special utility in a region like the North Sea where the tremendous fuel expenditure of battlecruisers was less of an issue. He viewed such ships as a naval luxury for the U.S., pointing out that even if designated as scouts, a commander would be forced to use them in the line absent an adequate number of battleships.¹³⁰

Leaving aside specific debates about design, Vogelsang and McLean provided a fair preview for the discussion of battlecruisers at the 1910 Summer Conference.¹³¹ Here, the battlecruiser issue was restricted mostly to one question, number eleven, which asked the participants to “[d]iscuss the tactical and strategical value of superior speed in a fleet. What is the best use to make of a fast wing in a battle fleet; and what is the best type of ship for a fast wing?”¹³² Although the question itself assumed that the fast wing idea had some utility, the Conference’s committee reports and the discussion of Question 11 would show that most of the officers at Conference had serious reservations concerning the desirability of a fast wing.

The First Committee’s report questioned the notion of a fast wing, arguing that superior speed was not important enough to secure with the “artificial method of reduction in armament or armor,” contradicting a point that was very much implicit in the original question. Far better, they argued, to obtain increased speed, if desired, through increasing

¹³⁰ Vogelsang, “The Value of Superior Speed,” 31-2.

¹³¹ At this conference, the participants were separated into two committees, each producing a report on each question, followed by a joint Reconciling Committee.

¹³² “Final Action of the Conference on Question 11,” September 26, 1910, *Summer Conference 1910*, volume I, RG 12, NHC, 131.

displacement or unspecified advances in engine technology.¹³³ If such a ship were deemed necessary, however, their report suggested taking the British *Lion* (which the committee saw as a type of battleship rather than cruiser), removing half of its guns, and using the weight to increase her armor and torpedo armament, a solution the committee likened to Schofield's torpedo battleship.¹³⁴

The Second Committee also argued that the fast wing type was unnecessary in the United States, claiming that the “[e]nergy, time and money,” needed to design and build such a ship would be more profitably spent on battleships and, at any rate, the “strategic location” of the United States did not warrant the construction of these ships.¹³⁵ If the U.S. Navy *were* to build a battlecruiser, the committee recommended imitating *Von der Tann*, presumably impressed by her mixture of reasonably heavy armor and firepower as opposed to the higher speed of *Lion*.¹³⁶

The majority of the Reconciling Committee sided with the First Committee's report, endorsing a 30-knot ship with 10” armor, four 14” guns and twelve torpedo tubes, essentially a modified Schofield.¹³⁷ The minority report, though, took the question in another direction. The working assumption in the United States was that a ship of the “fast wing,” would lie on the spectrum roughly between the British battlecruiser ideal and the 1904 Conference's

¹³³ “Answer of the First Committee to Question 11,” September 6, 1901, *Summer Conference, 1910*, volume IV, 3.

¹³⁴ “Answer of the First Committee to Question 11,” 6.

¹³⁵ Close readers might detect the hand of Vogelsang in this last point. Indeed, Vogelsang was at the Conference, and had a hand in writing the Reconciling Committee's minority report on Question 11. In the absence of a firm list of who was on which committee, putting Vogelsang on the Second Committee seems like a safe bet.

¹³⁶ “Report of Second Committee. Question 11,” August 17, 1910, *Summer Conference, 1910*, volume IV, 5-6.

¹³⁷ “Report of Reconciling Committee on Question 11, September 15, 1910, *Summer Conference, 1910*, volume IV, 6.

“reciprocal,” but the minority report suggested going back to the idea of the “compromiseless ship” as a model for the fast wing, if not the entire battle fleet.¹³⁸ Such a ship would have the speed and firepower to do real damage if in position to attack the head of an enemy column, but would also retain enough armor to fight in the line at no disadvantage.¹³⁹

Thrown for discussion to the entire Conference, Question 11 proved contentious. Indeed, neither the Reconciling Committee’s majority nor minority reports were accepted. Instead, a majority of the attendees endorsed something like HMS *Lion* as the ideal “fast wing style of ship;” a 30 knot ship with eight 14” guns. The final report on the question drew a strong distinction between battleships and fast wing ships. Battleships, the report claimed, were defined by armament, protection, and speed in that order, while the fast wing vessel needed speed and firepower before protection. Still, the construction of any type was in the distant future; the Conference passed a separate resolution calling for the U.S. to forgo the fast wing unless the vessels could be added to the naval budget in addition to two yearly battleships.¹⁴⁰

Separately from the Conference, Secretary Meyer was also considering battlecruisers that summer. In June, he asked the Bureau of Construction and Repair the same question the 1909 Conference had been asked about preferences between a fast, lightly armed ship, and a

¹³⁸ Putting forth the “compromiseless ship” as a model for the fast wing answered the text of Question 11, but also suggested that the writers were reasonably content with the American battle fleet as it then existed. Of course, as Fiske neglected to mention in his original article, his proposed ship would be ruinously expensive, as the Royal Navy would find out when they designed the *Queen Elizabeth* class before the First World War; a squadron of them was really all the Royal Navy could afford.

¹³⁹ Lt. Cmdr C.T. Vogelsang and Lt. C.C. Soule, “Minority Report of Reconciling Committee on Question 11,” September 16, 1910, *Summer Conference, 1910*, volume IV, 6.

¹⁴⁰ “Final Action of the Conference on Question 11,” *Summer Conference, 1910*, volume I, 135-6.

fast, lightly armored ship.¹⁴¹ The request was not entirely unexpected. The Bureau had conducted some research into giving the *Wyoming*-class battleships 25.5 knot fast wing companions, and the six designs arrived at were forwarded to Meyer.¹⁴²

The designs show that the Bureau had ideas on potential battlecruisers somewhat at odds with the line officers who made up the majority of the Summer Conference participants. Although the speed of all six designs was lower than that of HMS *Lion*, the percentages of armor by weight on the designs ranged from 20-24%, roughly comparable to *Lion*'s 23% and far lower than *Von der Tann*'s 30% (*Wyoming*, by way of contrast, was at approximately 26%; part of the discrepancy can be explained by *Von der Tann*'s relatively small size and weight devoted to engines; but German battlecruisers as a rule really were quite well armored). Interestingly, the Bureau's designs all produced ships that were at, or lower than, *Wyoming*'s 26,000 ton displacement. Apart from the first design, an attempt to out-power the *Lion* with ten guns and only eight inches of belt armor, the C&R sketches remind one of nothing so much as updated *Invincibles*, lacking the 70,000 horsepower engines of *Lion* (Design III, a six-gun design, topped out at 61,000 hp.) or the lavish armor of the *Von der Tann*. In short, the Bureau's designs were an attempt to match an already-obsolete design.¹⁴³

A set of speculative designs, however, was not the same thing as a commitment to the type, and the General Board and Secretary both declined to request the type in their annual

¹⁴¹ Secretary Meyer, Letter to the Chief of the Bureau of Construction and Repair, June 16, 1910, General Correspondence of the Navy Department, 1897-1915, RG 80, item # 26834-102, NARA Washington.

¹⁴² Chief Constructor W.L. Capps to Secretary Meyer, August 18, 1910. RG 8, Box 113, Folder 5, NHC. The issue of chronology here is a bit sticky. Friedman (*U.S. Cruisers*, 62) points out that these designs were actually sketched out in late 1909, possibly for the benefit of the General Board, but his contention that the Secretary saw the designs in 1909 seems difficult to reconcile with the June 16 letter from Meyer, and Capps's August letter, clearly a response to it.

¹⁴³ The American information comes from Capps's letter to Meyer and the attached sketch battlecruiser designs. The information for *Lion* and *Von der Tann* comes from: Siegfried Breyer, *Battleships and Battle Cruisers, 1905-1970*, trans. Alfred Kurti (Garden City, NY: Doubleday, 1973), 127 (*Lion*) and 270 (*Von der Tann*).

reports. Meyer's report argued, in keeping with the wording of the Summer Conference's "fast wing" question, that it was no longer appropriate to think of battlecruisers as a subset of armored cruiser. Instead, "nations building such ships are in reality building two types of battle ships, fast and slow."¹⁴⁴ Given the choice between the two, the slow variety were more acceptable for the United States. The General Board, on the other hand, dealt with battlecruisers at length (while continuing to call them armored cruisers), deploying a complex argument that owed a great debt to Vogelsang's report on the vessels.

To start with their simplest conclusion, the Board rejected the "fast wing" as a separate ship type, claiming, "the armored cruiser is not a permanent element of the fighting line but may be used as a temporary adjunct to it." In other words, while armored cruisers might be able to pitch in alongside battleships, it was not their main role, and could not be the basis for their design, as it clearly was to the 1910 Conference attendees. Rather than viewing this as a new conclusion, the General Board enlisted history to burnish their claim, asserting that this role had "not changed since the original inception" of the type.¹⁴⁵

Instead of viewing the American lack of battlecruisers as a potential danger, it is clear that the Board saw it as an advantage for the United States. Foreign navies may have decided to trade armor and firepower for speed, but in any situation where "either fleet had sufficient battleships to enable it to oppose battleships to armored cruisers," the advantage lay with an all-battleship fleet, like the U.S. Navy. Indeed, this advantage made armored cruisers an

¹⁴⁴ Meyer, "Annual Report of the Secretary of the Navy, 1910," November 30, 1910, in *Annual Reports of the Navy Department for the Fiscal Year 1910* (Washington, D.C.: Government Printing Office, 1910), 42-3.

¹⁴⁵ General Board, Report on Building Program, September 28, 1910, RG 80, E 281, File 420-2, NARA Washington, 6-7.

unnecessary luxury for the United States, which could go on laying down battleships without wasting money on “problematical” heavy cruisers. As an added bonus, the Board could use this reasoning to suggest, as they did with Germany, that the U.S. Navy needed to counter competitors’ battleships *and* armored cruisers with an equal number of battleships, a formula that they used to push for a yearly five-battleship program until 1917 to match the German battleship and cruiser combined strength.¹⁴⁶

If nothing definite was decided on in 1910 in the United States, it was clear that the idea of the battlecruiser, or something like it, as a fast wing was dead in the water. Even as the Summer Conference debated designs, the Conference as a whole urged the Navy not to build them unless it did not interfere with battleship plans, a condition that the Conference surely knew the Department and Congress would never meet. Still, both the Conference’s final report and the C&R sketch designs made it clear that if the United States were to build the ship, there was a larger constituency for following the British lead towards a new *Invincible* or *Lion* than there was for the *Von der Tann* (surely the most perfect example of a “fast battleship” to date), or breaking new ground with a Schofield or 1904 reciprocal. If battlecruisers were to be built in the United States, it was becoming clear that they would be improvements on the British model.

In late 1909, Herbert Richmond wrote, with characteristic acidity, about “[t]he legacy of Fisher—no thinking department, no plans for war, no knowledge of an enemy’s plans or

¹⁴⁶ General Board, Report on Building Program, 6-7, 17.

movements.”¹⁴⁷ What Richmond and many other observers wanted was a staff. By October 1909, pressure from outside the Admiralty forced Fisher to set up the Navy War Council “to consider naval strategic problems and war plans.” Unsurprisingly, it proved to be another body with little power or influence outside of its chair, the First Sea Lord. Other members of the Admiralty Board could occasionally thwart Fisher’s more radical ideas, but largely Fisher persisted in running the Admiralty like a squadron or a fleet; supported by a small group of trusted aides who could implement his ideas, but never come up with their own.¹⁴⁸

Across the Atlantic, the U.S. Navy was beginning to create a system of long-range planning centered on the General Board. Though it had little statutory authority, there was no other planning body in the Navy Department that could take on the role.¹⁴⁹ From 1908, the General Board had sole authority to determine warship specifications within the Navy (of course, Congress or the Secretary could set tonnage limits or otherwise modify the Board’s proposals). Already, the Board had begun to turn the yearly conferences at Newport for advice on fleet composition and strategy. Though this jury rigged system was not perfect (the Newport attendees did not necessarily have any aptitude for planning, the College was only in session for a few months a year, and attendees changed with every session), throwing questions to the Conference broadened the perspective of the General Board, and brought them into closer contact with the active fleet.

¹⁴⁷ Richmond Diary, December 10, 1909, RIC/1/8.

¹⁴⁸ Hamilton, *Making of the Modern Admiralty*, 223.

¹⁴⁹ Admiral Dewey could, perhaps, have gone further in the direction of personal leadership in the manner of Fisher, but his title as Admiral of the Navy carried little real power; a handicap that did not, however, stop the General Board. More importantly, Dewey was not a keen strategist or big picture thinker; for the most part he seemed content to make his influence felt through presiding over the General Board and picking its members.

The above organizational factors played out in the way both fleets approached battlecruisers in the 1907-10 period. In the United States, a consensus developed amongst Summer Conference attendees and the General Board that battlecruisers were of little use as a battleship supplement or replacement. Viewed from the perspective of American naval theory and policy, the opinion was a logical one. There may have been other roles that battlecruisers could fill, but their value was limited in a battleship role for a navy that maintained its faith in traditional linear tactics. By 1910, the General Board felt confident enough about these conclusions to lay them out at length in their annual construction memorandum for the Secretary.

In Britain, on the other hand, no such consensus was forthcoming. Admiral Fisher had strong opinions on these vessels, but his opinions were known to and shared by few others. As the first battlecruisers began to enter the fleet, there was no Royal Navy battlecruiser doctrine disseminated from the Admiralty, and no urgent attempt to forge one amongst the officers commanding the first three battlecruisers in active service. If we are to believe Richmond, the Home Fleet lacked any semblance of an understanding on how to use any of its cruisers. Absent service-wide agreement on battlecruiser employment, the Royal Navy risked a potentially dangerous disconnect between the design of the ships at the Admiralty and the employment of ships with the fleet, a danger that would indeed manifest itself during the First World War.

Turning to consider the two navies in isolation, the U.S. Navy engaged in a much more serious debate over the impact of the new ships than in previous years. With tangible British ships entering service, and the second generation of battlecruisers under construction, it was clear that they were no mere passing fancy. They were, however, very difficult ships to

fit into the American way of naval war. Although there was a faction of officers in the Navy that would have been pleased to have the new ships, far more, including most of the ones in influential positions, viewed the new vessels with a large measure of skepticism, failing to see their advantages over dreadnoughts. Considering how contentious the dreadnought debate was in the United States, battlecruisers were just too radical a step to take. After all, any of the more common critiques of the *Dreadnought* applied more so to battlecruisers.

Still, one can see signs of a general agreement that battlecruisers would be ideal for some sort of screening or scouting role, although those issues were lost amongst debate over the fast wing. The issue was cost, both in an absolute sense and in the usage of scarce resources. The question for the future was whether or not battlecruisers were seen as valuable enough in those “lesser” roles to justify their tremendous expense and gargantuan crews. Through 1910, the answer was clearly “no,” but opinions would begin to shift in the next few years.

In Britain, on the other hand, the years covered in this chapter were mostly ones of stasis as far as battlecruisers were concerned. Fisher, clearly the dominant force on the Admiralty Board, continued his support for battlecruisers, and the Royal Navy continued to build them. At the same time, the Admiralty’s proposals for Dominion battlecruisers, and their support for the “fleet unit” model at the 1909 Imperial Conference give us a sense of what British policy may have looked like had Fisher stayed on.

As we know, Fisher did not. His replacement as First Sea Lord, Arthur Wilson, was broadly sympathetic to Fisher’s reforms and ship designs, but was not nearly as radical a strategic thinker. While the Royal Navy would continue to build battlecruisers, they had lost their primary advocate and theorist. Until a new First Lord of the Admiralty, Winston

Churchill, stopped battlecruiser production in 1912 in favor of a British twist on the “compromiseless ship,” the Royal Navy would continue to construct the vessels, but do so in the absence of an animating doctrine for them.

CHAPTER 4: IN SEARCH OF A MISSION

By 1910, an observer privy to the inner workings of the American and British navies would have noticed that both navies were moving away from the debates of the past five years and towards “official” battlecruiser policies. In the United States, this took the guise of the General Board’s conclusion in late 1910 that battlecruisers were a “problematic” class of ship, best countered with more battleship construction. Although the role of battlecruisers in the fast wing had proved contentious in Newport during the 1909 and 1910 Summer Conferences, the Board’s unambiguous stance on the matter effectively closed debate on the subject.

Likewise, the Admiralty appears to have staked out a rough battlecruiser policy by the time Fisher left office in early 1910. The First Sea Lord had been allowed to construct battlecruisers, but the Board kept him from building them to the exclusion of dreadnought battleships. As a result, the Royal Navy built a relative handful of battlecruisers alongside its much larger battleship program, relegating battlecruisers to the position of supplement rather than replacement. Both the First Lord, Reginald McKenna, and First Sea Lord Arthur Wilson expressed contentment with this building policy, and planned to carry on with it.

In both countries, however, these policies proved short-lived. Just months after the General Board’s 1910 construction memorandum, news of Japanese battlecruiser construction reached the United States, spurring new discussion on the type in the United States. Critically, this discussion revolved around battlecruisers as scouts and makeweights in

the early stages of a Pacific War. When viewed in that context, battlecruisers posed less of a threat to the battle line and American notions of naval warfare. American officers had discussed battlecruisers in a scouting context ever since the type's introduction, but those discussions had always been overshadowed by contention over their use in a fast wing role. With that debate tabled, the thrust of the American battlecruiser debate could shift to the scouting mission.

In Britain, on the other hand, the policy was shattered by the failure of the Admiralty to manage the Royal Navy. On subjects ranging from administrative policy, to the ballooning naval budget, to plans for war with Germany, the McKenna-Wilson axis proved unequal to the tasks facing it. After both men were sacked within a few months of each other in 1911, the Admiralty was firmly under the thumb of the new First Lord, Winston Churchill. With the support of his First Sea Lord, Francis Bridgeman, Churchill moved to unravel key aspects of the Fisher legacy, especially in construction, where battlecruisers were removed from 1912-13 Programme in favor of slower, better armored, "fast battleships."

Fisher's successor was perhaps the only senior officer who commanded respect from all quarters. Admired for his personal qualities (he had been awarded a Victoria Cross for conspicuous gallantry during the Mahdist Revolt), Arthur Wilson had also remained aloof from the Navy's internecine struggles during Fisher's term in office. Beyond his comportment and demeanor, Wilson was also seen as an exceptionally keen tactical mind. Although he had retired upon turning 65 in 1907, his retirement came with a promotion to

Admiral of the Fleet, and another five years on the active list. This allowed Fisher and McKenna to tap him as the next First Sea Lord, while the two conspired to place a thorough Fisherite in the post upon Wilson's final retirement.¹

None of this made Wilson an especially keen administrator. Wilson was judged stubborn by peers, subordinates, and superiors, and lacked the capacity to delegate. Indeed, Wilson's earlier stint as 3rd Naval Lord/Controller had been cut short in 1901 due to his inability to work with others. This tendency remained when he returned in early 1910, and may have been intensified with his new role; Wilson seemed to treat other Board members as mere aides, rather than senior officers with their own responsibilities.² Still, Wilson was broadly sympathetic to Fisher's reforms, and if he was an "autocrat," he was not interested in dragging the Royal Navy onto a new course.³

Unfortunately, Wilson and McKenna were forced to deal with the rapidly expanding Germany Navy and its perceived threat to Britain. Further afield, the Royal Navy also faced the prospect of Italian and Austrian dreadnoughts in the Mediterranean Sea. A crucial artery for imperial communications and trade, the Mediterranean had been home to, before Fisher, the strongest fleet in the Navy, tasked with protecting those communications from the French Navy. With the signing of the Entente, Germany was clearly the main threat, but the combined Austro-Italian fleet was large enough to contest control of the Mediterranean. Critically, what war plans there were relied on the cruisers and battleships of the

¹ N. Lambert, "Admiral Sir Arthur Knyvett-Wilson," in *The First Sea Lords*, ed. Malcom Murfett (Westport, CT: Praeger, 1995), 35-7.

² Lambert, "Wilson," 38-39.

³ Arthur J. Marder, *From the Dreadnought to Scapa Flow: The Royal Navy in the Fisher Era, 1904-1919, Volume I* (London: Oxford UP, 1961), 211-13.

Mediterranean Fleet joining forces with the Home Fleet in the North Sea to provide an effective margin of superiority over the *Kaiserliche Marine*.⁴

The McKenna-Wilson Admiralty also had to deal with the situation in the Pacific. With a small German squadron in Chinese waters, reasonably friendly relations with the United States, and an alliance with Japan, the major power in East Asia, the Pacific would seem to be a relative backwater in British strategic planning. However, at the previous year's Imperial Conference, Fisher had committed the Navy to the maintenance of three "fleet units" in the Indian Ocean and Western Pacific, centered around one battlecruiser supplied from each of New Zealand, Australia, and the United Kingdom. As early as January 1910, elements in the Admiralty wondered whether such a preponderance of force was necessary so far from the North Sea without extra construction to pick up the slack.⁵

All of these problems were exacerbated by the soaring cost of naval expenditures. Fisher had been appointed First Sea Lord in large part because of his plans to reduce spending. McKenna, appointed First Lord of the Admiralty in 1908, had also been chosen for his supposed ability to curb spending, yet neither Fisher nor the Fisher-McKenna axis proved able to come to grips with the naval budget. Admiralty figures produced in late 1912 show that Fisher's reforms did indeed cause a decline in spending, from approximately £41.7 million pounds in 1904-5 to a low of £34 million in 1907-8. By the time of the Estimates put forth in 1911, the last Fisher would have been officially involved in drafting, the total had climbed again to £46 million.⁶ Unfortunately, Fisher's economies consisted largely of

⁴ [Capt. Herbert Richmond?], Notes on War Plans, Late 1909/early 1910, RIC/13/4, Caird Library, 2-3.

⁵ Admiralty Memo, January 25, 1910, ADM 116/1270, TNA.

⁶ T.J. MacNamara, "Reports of the Finance Committee of the Admiralty on the Sketch Navy Estimates 1913-14," December 19, 1912, ADM 116/865B, TNA, Kew. The Government budget was typically introduced in the

scrapping older ships, saving money that would have been spent on their upkeep, and putting their sailors in newer ships. Under Fisher, the number of officers and men barely dipped, shrinking from 130,000 in 1905 to 127,000 in 1907 before rising again to 131,871 in March 1911.⁷

The temporary savings Fisher delivered in maintenance and logistics covered up a massive increase in the construction budget. The 1911-12 estimates called for nearly three times as much new tonnage as the 1906-7 Programme.⁸ The issue, however, was not merely the amount of new construction. The cost of ships had also risen dramatically, a problem that could be mostly laid at the feet of battlecruisers, whose cost had risen £300,000 between *Invincible* and *Lion*, as compared to a difference of approximately £100,000 between *Dreadnought* and the *Orion*-class battleships designed alongside *Lion*. If the *Minotaur* class of armored cruisers, the last built before the introduction of battlecruisers, is included, the increase in per-unit cost over the previous six years rises to about £600,000.⁹

Expenditures were only part of the reform that Fisher promised. His ideal, streamlined, Royal Navy would operate in a significantly different manner than its predecessors. Rather than command of the sea based on scores of decrepit battleships and cruisers strewn across the world's oceans, Fisher suggested a smaller number of battlecruisers to ensure command of distant seas, combined with a powerful flotilla to

early spring; preliminary budgets were developed internally and circulated around the Cabinet late in the preceding year.

⁷ N. Lambert, *Sir John Fisher's Naval Revolution* (Columbia, SC: University of South Carolina Press, 1999), 311.

⁸ MacNamara, "Sketch Navy Estimates 1913-14."

⁹ Admiralty, "Summary of Draft Navy Estimates, 1913-14," January 1913, ADM 116/3151, TNA, Kew.

protect the British Isles and Mediterranean. Coupled with a radically enhanced education system, Fisher hoped to cement British dominance at an affordable price.

Even before he left office, it was clear that not all of his rosy predictions would come to pass. From the first, it was clear that neither the First Lord nor the remainder of the Admiralty Board would allow him to cut battleships out of naval planning altogether. Education, too, was a mixed bag. His education scheme for naval cadets could be fairly termed a success, but the position of the Royal Navy's war college was far from secure. More fundamentally, the promised savings had proved to be almost illusory. On the positive side of the ledger, the combination of the *Dreadnought* and the *Invincibles* had essentially frozen armored cruiser and battleship construction abroad as rivals attempted to cope with the new British ships. Additionally, at the time of his removal in early 1910 his plan for "fleet units" in the Pacific was still Admiralty policy, and perhaps the purest expression of his ideal grand strategy.

How, though, had Fisher's tenure changed the Navy's institutional strategic culture? Although Fisher and McKenna had staffed the Admiralty and the major commands with Fisher loyalists before his resignation, the evidence from Wilson's term as First Sea Lord suggests that while Fisher's reforms made an impact at the policy and grand strategy levels, outside of the Admiralty little had changed.¹⁰ Lacking much in the way of staff, most war planning was left to the individual fleet commanders, especially after the Beresford fiasco. Furthermore, Fisher, though an active promoter of a unique grand strategic vision and construction policy, had comparatively little to say on the matters of strategy and tactics, beyond a preference for engagements at long range and high speed, and a number of well-

¹⁰ Lambert, *Sir John Fisher's Naval Revolution*, 202-3.

worn belligerent bromides (e.g. “You hit first, you hit hard, and you keep on hitting”).¹¹ To some extent, Fisher had changed the Navy’s policy, and to a much greater extent, its materiel. It remained to be seen, however, what the senior officers in direct command of the fleets did with the new Royal Navy.

Overall, the officers responsible for meeting the challenges enumerated above had precious little training for their responsibilities. There was no naval staff and, as Slade and Richmond had discussed in 1907, still no group of officers competent to perform high-level staff work. The existence of the Naval Intelligence Department mitigated this to some extent, but it was not really set up to develop detailed plans or coordinate action in time of war. The War College lacked the prestige, the personnel, or the quality to serve as an ad-hoc staff as it did in the U.S. Although the men running the school were generally competent, the course was set up for senior commanders and captains; not the officers who would be in a position to perform the majority of staff work. Even those that did attend frequently left for other postings before the eight-month course concluded.¹² Indeed, according to Richmond, this rot extended through the Royal Navy’s educational system; by the end of 1911, he was convinced that the college at Osborne for naval cadets had reached a point of crisis, failing to produce officers of imagination or even technical competence.¹³

Here, a useful comparison may be made with the education system inside the U.S. Navy. Of course, the Naval Academy was older and far more prestigious than the Osborne school. More importantly, though, the U.S. Naval War College was far more central to the

¹¹ Fisher, “Peace,” [1919?], CBT/12/102, Caird Library.

¹² C.I. Hamilton, *The Making of the Modern Admiralty* (Cambridge, UK: Cambridge University Press, 2011), 244.

¹³ Richmond, journal entry, November 8, 1911, in *Portrait of an Admiral: The Life and Papers of Sir Herbert Richmond*, ed. Arthur Marder (Cambridge, MA: Harvard UP, 1952), 82-4.

American naval establishment. Service on the faculty or attendance at the Conferences were a way for comparatively junior officers to make a tangible impact on naval policy, and certainly by 1910 some stint at the War College was seen as a major plus in those aiming for command of a fleet or membership on the General Board. Furthermore, the Conferences tended to smooth the rough edges of philosophical or strategic disputes in the U.S. Navy. It is fair to say that the U.S. Navy's officer corps, and certainly its senior leadership, shared a general idea of naval war and strategy gleaned from the pages of Mahan. As we have seen, disputes did crop up, but there was never a serious challenge to the notion of the U.S. Navy as a battleship-dominated force organized around winning wars through an overwhelming victory in a single major battle.

The Royal Navy's structure and culture did not allow for such intellectual uniformity. Of course, the Royal Navy, like all navies, placed a premium on sea service, and with ships stationed all over the world, even after Fisher's reforms, the service was unable to create something on the order of the conference system in the U.S., which allowed dozens of officers to cycle through the College without having to spend a year or more tied down in Newport.¹⁴ The choice between an education of undetermined value for a nonexistent staff career and remaining on the recognized *cursus honorum* at sea was a stark one, and the R.N. War College never attracted the same caliber of officer as the American one. Even an officer as interested in strategy and naval history as Richmond would find it better for his career to stay afloat (often in postings he loathed), than to risk stagnation ashore working through problems of strategy and command.

¹⁴ Many American naval intellectuals bemoaned the superficial education acquired at the Newport Summer Conferences and successfully pushed for the creation of a more rigorous "long course" of a year's length alongside the Summer Conferences. On the other hand, the ability to bring dozens of officers to Newport for a few months created a great opportunity to test and discuss major elements of naval policy.

On the other hand, officers in the Royal Navy, at least in the major fleets, had far more opportunity than their American counterparts for realistic war exercises with dozens of ships on each side and thousands of square miles of sea to practice in (the arena for the 1906 Grand Manoeuvres, for example, stretched from Gibraltar to Scotland). However, even these exercises were not as realistic as they could have been. In early 1911, Richmond bemoaned the practice of giving the commanders of exercises their problems well before the start of exercises; early enough to develop intricate plans. Despite their somewhat limited utility, these exercises still gave British officers some experience with actual squadrons and fleets in the same areas they were expected to fight them in.

On the level of theory, Fisher's term had brought the Royal Navy no closer to any sort of productive consensus. A possible window into this is Julian Corbett's *Some Principles of Maritime Strategy* (late 1911), his attempt at laying out a general theory of naval affairs in a manner akin to Mahan's. More than anyone else, including the man himself, Corbett attempted to put words to Fisher's ruminations on strategy and policy, which is not to say that Corbett's own tendencies did not already run in a similar direction (Indeed, the *Army and Navy Gazette* believed that Corbett's analysis explained the genesis of the *Invincibles*).¹⁵ Recapitulating Corbett's arguments at length is unnecessary; primarily based on the "Green Pamphlet" he composed at the War College; it covers ground discussed in previous chapters.

Responses towards Corbett's opus were generally positive, but the most vituperative reviews came from naval sources, or from reviewers closely aligned with the Navy. While some officers praised the book, their general tenor was negative.¹⁶ An unidentified naval

¹⁵ No author, Review of *Some Principles*, *Army and Navy Gazette*, December 16, 1911, CBT/5/3/3, Caird Library.

¹⁶ Lt. Alfred Dewar, Review of *Some Principles*, *Pall Mall Gazette*, December 22, 1911, CBT/5/3/2.

captain, writing in the *Naval and Military Record* called it “the crowning mistake of Mr. Corbett’s career,” faulting him for believing “that his historical researches have qualified him to pose as a naval strategist . . . [he was] obviously incompetent to assess [naval affairs].”¹⁷ Spencer Wilkinson, the military historian, and a man well connected with the Beresford faction, was also not a fan, seeing Corbett as the apostle of the Fisherite ideas he thought were wrecking the Navy.¹⁸ More importantly, Wilkinson argued that Corbett’s views were essentially unsound, running against the principles “the four great navies of the modern world are agreed as regarding as ‘fundamental.’”¹⁹

Perhaps a more fundamental rebuke to the Fisher-Corbett theories can be found in the officers commanding the Navy in 1910-11. Even if Fisher had tried to pack the Admiralty and fleet commands with like-minded officers, it is fair to wonder how much of that agreement was related to construction and finance as opposed to strategy. William May, the commander of the Home Fleet when Fisher left office, had been 2nd Sea Lord for a stretch under Fisher, but it is difficult to argue that he was a kindred spirit. Richmond, who served under him as flag captain described him as “utterly unfitted” for “such an important charge as that of the Home Fleet.” While an officer in his position should “concern himself solely with strategy and tactics,” May “knows none of these. He has the haziest idea of strategy . . . backed perhaps by some totally inaccurate historical references.”²⁰ Even if one discounts Richmond’s admittedly extreme point of view, nothing in his actions or writings suggest that

¹⁷ Unidentified RN Captain, Review of *Some Principles*, *Naval and Military Record*, [December 1911], CBT/5/3/5.

¹⁸ Spenser Wilkinson, Review of *Some Principles*, *Johannesburg Star*, March 9, 1912, CBT/5/3/20.

¹⁹ Wilkinson, Review of *Some Principles*, *Morning Post*, February 19, 1912, CBT/5/3/6.

²⁰ Richmond, Journal Entry, April 24, 1910, RIC/1/8.

May was anything beyond an utterly conventional officer in thinking. Indeed, to the extent that May thought about battlecruisers, he appears to have viewed them as an especially capable sort of armored cruiser.²¹

Even Wilson would show himself to be a disappointment. We have already seen that Wilson was temperamentally unsuited for the role of First Sea Lord, though generally a supporter of Fisher's materiel reform.²² In the realm of tactics, however, Wilson was acclaimed as an uncommon talent, which made his failures as a strategist especially concerning. Asked about the Royal Navy's strategy in the event of war at an emergency CID meeting called because of the Agadir crisis, Wilson outlined a secret plan of close blockade, developed without input from or the knowledge of fleet commanders, Naval Intelligence, and the Board.²³ In fact, when Wilson had left London to go shooting in Scotland in the early stages of the crisis, he left the only copy of his war plans at the Admiralty in a locked safe.²⁴

Wilson's tenure may have lasted longer if he had left his plans in the safe. Wilson's ideas were recognized by the CID and senior naval leadership as suicidally reckless. It was also rather far removed from the strategy of flotilla defense in the North Sea that Fisher had espoused, and assumed that Wilson had as well. Indeed, Wilson's plan was rather

²¹ See, for example, May's Home Fleet correspondence in MAY/10 in the National Maritime Museum. If we take Richmond to be an honest source, many of the cruiser exercises contained within were written by him, not May. Still, what remains is enough to confirm that May did not see battlecruisers as a separate category of ship requiring special consideration or tactics.

²² It should be noted that Wilson, and most officers who supported Fisher's reforms during his tenure were supporters of Fisher's policies as they were enacted, not as Fisher may have wished. Today, Fisher's radical ideas concerning the abolition of the battleship, the ascendancy of battlecruisers, and the importance of the flotilla for defense are well-known, but it is highly unlikely that Fisher would have had so many supporters had his full views been disseminated widely through the RN. Viewed from outside the Admiralty, Fisher's preferred construction policy appeared to be one of outbuilding Germany in modern dreadnought battleships.

²³ Lambert, *Sir John Fisher's Naval Revolution*, 204-5.

²⁴ Hamilton, *Making of the Modern Admiralty*, 224.

contemptuous of the potential of torpedo boats, destroyers, and submarines, placing the Royal Navy's armored cruisers and battlecruisers possibly within sight of the German coast.²⁵

The Agadir crisis proved to be the last straw for McKenna, already under intense pressure from his Cabinet colleagues to create a naval staff, which Fisher had convinced McKenna to oppose.²⁶ McKenna would be replaced by Winston Churchill in the fall and Wilson forced out soon after. In their year and a half at the Admiralty, almost no movement had been made on the pressing issues facing the Royal Navy. Although McKenna fought for new construction, the ships themselves remained ruinously expensive, the fleet's strength was stretched thin between the Pacific, Mediterranean, and North Sea, and very little progress had been made on how to fight with the new ships Fisher's building push had given the Navy. The McKenna-Wilson partnership had produced almost no forward motion for the Royal Navy at large or for how to employ the new battlecruisers. The decisions made over the next three years, though, would have a tremendous impact on the development and employment of battlecruisers in the Royal Navy.

By 1911, news of Japanese battlecruiser construction had reached the United States, recharging the American debate on the vessels. During the Russo-Japanese War, the Imperial

²⁵ [Wilson?], "Heligoland Bight Blockade Squadron: Preliminary War Orders for Commodore T. in Command," January 3, 1911, ADM 116/3096, TNA.

²⁶ Martin Farr, *Reginald McKenna: Financier among Statesmen, 1863-1916* (New York: Routledge, 2008), 209-11.

Japanese Navy had begun construction of the *Tsukuba*-class armored cruisers, proto-battlecruisers armed with four 12” guns, along with the pre-dreadnought panoply of smaller caliber guns. Seemingly content with them, the next class of armored cruisers, the *Ibuki*-class maintained the same layout as their predecessors. By early 1910, though, the IJN’s leadership had begun to consider imitating the battlecruisers of their British allies, and in January of that year, the Japanese government asked for, and received, detailed plans of the Royal Navy’s *Indefatigable*.²⁷ Later that year the Japanese Navy’s leadership approved plans for the *Kongo*-class, four battlecruisers armed with 14” guns. The lead ship in the class was laid down in a British yard in January 1911.

Although it would take some time for hard data on her specifications to reach the United States, the knowledge that Japan was building a “real” battlecruiser caused some reappraisal of battlecruisers, with an eye towards their utilization in the Pacific. The Navy League was even quicker than the USN to demonstrate enthusiasm for battlecruisers. Although the League accepted the logic of keeping the battle fleet in the Atlantic, in March *The Navy* printed a speech from Sidney Ballou, head of the League branch in Honolulu, calling for the construction of battlecruisers to add steel to the U.S. position in the Pacific in the event of war. An opponent of splitting the battle fleet, Ballou claimed that a squadron of battlecruisers in the Pacific would preserve the American position until the battle fleet arrived. With “the broad Pacific to play hide and seek in,” a squadron of battlecruisers, able to outrun anything more powerful and outfight anything faster could keep a larger Japanese

²⁷ Letter from Japanese Embassy to Admiralty, January 20, 1910, ADM 116/1231C, TNA.

fleet off balance and threaten the communications of any expeditionary force bound for the Philippines or Guam.²⁸

The General Board itself adopted similar reasoning in an unusually early construction memorandum, written towards the end of May. Pointing towards British, German, and Japanese battlecruiser construction, the Board asked President Taft's new Secretary, George von Lengerke Meyer, to consider battlecruisers in the Department's next budget, and requested that the Bureau of Construction and Repair study possible designs. Reading between the lines, it is clear that the Board saw battlecruisers as a possible solution to covering two oceans with one battle fleet; looking at battlecruisers "with a special view for service in the Pacific Ocean," they were clearly more capable than the older cruisers that made up the Asiatic Fleet and, if properly handled, could harass the Japanese Fleet without the danger of being forced to action by a superior foe. Technically, the memorandum did not add a battlecruiser alongside their formal request for four battleships in the 1912 bill's building program. Indeed, the General Board took pains to insist that *if* Meyer found battlecruisers a worthwhile addition to the naval bill, it would only be acceptable on top of and not in lieu of the four battleships.²⁹

Delving deeper into the memorandum, it is not possible to figure out what exactly the Board thought battlecruisers were, the memo specifying neither form nor function. Rather

²⁸ Sidney Ballou, "Naval Defense of the Pacific," *The Navy*, March 1910, 34-5. Ballou, whose first name was sometimes written as "Sydney," is a perfect example of the social standing of some League supporters. He eventually became treasurer of the Navy League after a glittering legal career. A former justice on the Hawaiian Supreme Court, Ballou had also compiled the law code under which Hawaii was governed after the American annexation in the late 1890s.

²⁹ General Board, "General Board Report on Building Program," May 25, 1911, RG 80, E 281, File 420-2, NARA Washington, 4-5. This 1911 request is the only one from the General Board that can be attributed solely to Japanese construction, a popular rationale in the extant literature for American battlecruiser construction (see, for example, McBride's *Technological Change and the United States Navy*).

than assigning a name to the class, the memorandum referred to them as “large armored vessels of high speed, similar to those building in Great Britain, Germany and Japan,” a term that could refer to the *Indefatigables*, *Lion*, *Von der Tann*, the new German *Moltkes*, or *Kongo*, a collection of ships representing two, possibly three, distinct design philosophies.³⁰ The mission of these new ships was equally vague. The wording suggests something similar to Ballou’s idea above, which would have been a dramatic departure from Mahanian orthodoxy on concentration and the post-1905 interdict on armored cruisers but it could just as easily refer to scouting for the main fleet as it made its way across the Pacific. The previous year’s Conference had discussed battlecruisers in the context of a fast wing but, of course, the ships in the Pacific would have no line to be the wing for until several weeks into a theoretical Pacific war.

The 1911 Conference, with the Board in attendance, tended to agree with the Board that battlecruisers were a key part of the ideal fleet, while filling in some of the blanks in the Board’s arguments. As usual, while a number of questions dealt obliquely with battlecruisers, one dealt with the ships directly. Question #2 asked the Conference to consider all aspects of “battleship cruisers” and armored cruisers. While the 1909 Conference had seen the new ships as a type of armored cruiser, the 1911 instructions clearly differentiated between them, although the sub-questions imply that this difference did not necessarily extend to employment.³¹ The questions asked of armored cruisers suggest that the Navy still lacked a coherent idea of how to use their extant armored cruisers. Interestingly, the question also

³⁰ General Board, “General Board Report on Building Program,” 4-5.

³¹ The dividing line between armored cruiser and “battleship cruiser,” appears to be in the size of the largest-caliber guns carried. Elsewhere in the 1911 Conference Report, and in war gaming, the Japanese *Tsukuba* and *Ibuki* classes, 21-knot ships with four 12” guns, were classed as battlecruisers, while the German *Blücher*, a 25-knot ship with a uniform battery of 8.3” guns was classified as an armored cruiser.

asked the participants “why does England need battleship cruisers?,” a question that, as we have seen, was never really asked in Britain.³²

The Conference’s final report on Question #2 makes for interesting reading. The authors, Lieutenant Commander T.T. Craven and Lieutenant T.F. Caldwell, started the piece with an examination of the history of the orthodox armored cruiser, recapitulating the American difficulties with the type. In their telling, armored cruisers were a British response to the very specific threat of the French *Jeune Ecole*. Faced with the potential of *guerre de course* with oceangoing French cruisers, the British began to construct cruisers bigger and stronger than their French counterparts to protect sea lanes. The authors argued that in following that strategy the French “were led away from the true doctrines of sea power,” and furthermore they asserted that the British response, though necessary to meet the French threat, sparked an unsound fascination with the ships around the world, an oblique indictment of pre-Russo-Japanese War American naval policy.³³

The “old” armored cruiser, they argued, was “a hybrid, a compromise . . . unsatisfactory.” Of course, this exact point, the armored cruiser’s combination of high speed and reasonably heavy armament is precisely what led Fisher to place armored cruisers at the center of his understanding of naval warfare before the Designs Committee convinced him to add battleship guns to them in early 1905. For these Americans, though, (and we should remember that this was adopted by the Conference without alteration) armored cruisers were expensive to build, expensive to maintain, too powerful to detach for raiding or scouting, and too weak to lie in the line. As the authors put it, armored cruisers were “not designed for a

³² 1911 Conference, Question 2, Report of the 1911 Summer Conference, Volume I, RG12, NHC, 6.

³³ Lt.Cmdr. T.T. Craven and Lt. T.F. Caldwell, “Tactical Question No. 2: The Use of Armored Cruisers in an Action,” 1911 Conference, Volume 3, RG12, NHC, 1-2.

maximum of service while accompanying the battle fleet,” a mortal sin in the Mahanian orthodoxy that prevailed in the U.S. Navy.³⁴

Looking at the American stable of armored cruisers, Craven and Caldwell struggled to find a role for them that would justify their immense construction costs. In battle, the authors suggested that armored cruisers could protect their fleet from torpedo attack (a role the British delegated to far cheaper light cruisers and destroyers), cover an American torpedo attack (though the Navy at this time was severely deficient in torpedo boats and destroyers), and perhaps lay mines. After battle, they could be used for attacking disabled battleships, or attacking an enemy’s train. Craven and Caldwell did mention the possibility of using armored cruisers to scout, but concluded that the proliferation of battle cruisers made that role untenable.³⁵

Although the report freely acknowledged that “battleship cruisers” were the direct descendants of the “unsatisfactory” armored cruisers, the authors saw them as far more useful in naval combat. In battle, Craven and Caldwell argued that battlecruisers could make an important impact in a fast wing role. More importantly, though, they emphasized the independent role of battlecruisers. Positing that “[t]he tactics of today . . . are those of surprise,” the authors suggested four independent missions for battlecruisers beyond scouting and screening. With their speed and firepower, battlecruisers could also be used:

- (1) To delay or oppose the advance of an enemy through certain strategical waters
- (2) To reach and defend an advanced position ahead of an enemy’s raiding force attempting to securing a base
- (3) To seize a base before an enemy can defend it by interrupting landing and defensive operations.
- (4) To cut off and defeat any detachment of an enemy before it can be supported.

³⁴ Craven and Caldwell, “Tactical Question No. 2.,” 3.

³⁵ Craven and Caldwell, “Tactical Question No. 2,” 3-5.

All four of these new missions suggest that battlecruisers, acting in concert, could be more profitably used *away* from the battle fleet, or even the fleet's screen, a type of mission the authors had rejected for armored cruisers earlier in the same document. Tellingly, the first three on the list would figure prominently if battlecruisers were built, as the General Board suggested, with an eye towards the Pacific.³⁶

Turning towards the United States, both Craven and Caldwell acknowledged that the ideal counter to German and Japanese battlecruisers would be American ones, albeit "heavier and more powerful," than Japanese and German models. However, they doubted the willingness of Congress to provide for a full division of five battlecruisers, and considered anything less to be pointless. Indeed, given the constraints on the American naval budget, the authors argued battlecruisers should never be allowed to take a spot in the funding queue ahead of battleships.³⁷ With Congress still showing no sign of agreeing to the Navy's 1903 48-battleship program, Craven and Caldwell's support for battlecruisers in the US was so tepid as to be non-existent.

On the other hand, their section on "England's Need for Battleship Cruisers" was more bullish on the place of battlecruisers, in ways that had very little to do with Britain's specific strategic context. Although the report mentioned commerce and the importance the British placed on speed, the main difference Craven and Caldwell highlighted was the greater size of the British Navy. For a big navy, "Battleship cruisers are as necessary . . . as are Cavalry to an Army." Like cavalry, battlecruisers might not be the most useful tool in all, or

³⁶ Craven and Caldwell, "Tactical Question No. 2," 6-7.

³⁷ Craven and Caldwell, "Tactical Question No. 2," 11.

even in most, situations, but they were invaluable in their particular sphere.³⁸ In this document, then, battlecruisers were trapped between being a necessity and a luxury. Craven and Caldwell's analysis painted these two choices as a binary rather than a spectrum. At *some* point, when the U.S. Navy had "enough" battleships, battlecruisers would become a necessity, but until then, building them was an unnecessary diversion of resources from the battle fleet.³⁹

The Conference's consideration of Question No. 2 shows that the two authors were more or less attuned to their fellow participants. Battlecruisers were noted as the source of division within the Conference, with one faction favoring battlecruisers as the only effective class of scouts, and another arguing that they were merely the dreadnought equivalent of the thoroughly unsuitable armored cruiser. Instead, they argued, enough dreadnoughts should be built to allow "for reconnaissance in force," with battleships.⁴⁰ Although there were a handful of fast wing advocates, the Conference made it clear that *if* battlecruisers would be built their primary purpose would be scouting and other detached operations.

Answers to questions asked about scouting and screening went even further in arguing for battlecruisers. The discussion over Question 4, on the use of scouts, turned into a debate on the ideal ship for scouting, with one side taking the stance that battlecruisers were the ideal scout and the other holding that a lighter cruiser, around 6-8,000 tons would be a better alternative. Tellingly, though, even the partisans of the smaller scouts conceded, that

³⁸ Craven and Caldwell, "Tactical Question No. 2," 10.

³⁹ Of course, one must be forgiven for asking where exactly that point was. By 1911, the United States was the world's third naval power, and the two enemies highlighted in war planning were in the process of building battlecruisers. Everything in this response, except for their general conclusions regarding the U.S., pointed towards battlecruiser construction as an urgent need for the U.S.

⁴⁰ Captain F.K. Hill, "Summary of Discussion of Tactical Question No. 2," 1911 Conference, Volume 3, RG12, NHC.

they would need to be backed up by fast, heavy vessels.⁴¹ Although question six, on screening, asked its authors to confine themselves to U.S. Navy as it existed in 1911, the question's solution made a pitch for the indispensability of battlecruisers, arguing that they were not a type of battleship but had a "definite and essential function which will become obvious in future warfare," namely blinding enemy scouts. Although the solutions to Questions four and six made no mention of specific spending priorities, it is clear that the authors considered battlecruisers an essential part of naval warfare, not just a supernumerary luxury.⁴²

Another scouting solution, written by William Sims, went even further in favor of the battlecruisers, arguing that the ships were not a response to, or companion for, dreadnoughts but intended for "a service, the necessity for which has always existed." Furthermore, Sims tied American reluctance to build battlecruisers to a reliance on Mahan and an unwillingness to "reason for ourselves." More analytically, the solution echoed the response to question six in arguing that without battlecruisers, the U.S. Navy had no hope of containing enemy scouts or protecting its own, purpose-built light scouts lacking the ability to "maintain contact in the presence of a number of battleship cruisers."⁴³

Overall, the solutions posed to the questions asked at the 1911 Conference show how the terms of the battlecruiser debate in the United States had shifted after the Board's stark refusal to consider them for the fast wing role in late 1910. The two previous Conferences, while conceding the utility of battlecruisers for scouting, had discussed them almost entirely

⁴¹ Hill, "Summary of Discussion of Tactical Question No. 4," 1911 Conference, Volume 3, RG12, NHC.

⁴² Lt. Cmdr W.T. Cluverius and Lt. W.N. Jeffers, "Tactical Question No. 6," 1911 Conference, Volume 3, RG12, NHC, 4-8.

⁴³ Cmdr. William S. Sims, "Tactical Question No. 11," Folder 8, Box 106, RG8, NHC, 43-50.

in the context of major fleet actions. It would be going too far to say that the Conferences regarded them as a species of battleship, but there is no doubt that they were primarily discussed as a fast wing adjunct to the battle line. In both years, majorities had rejected the notion of building them for that role. Part of the opposition, of course, came from the cost of such vessels and their potential to divert resources from battleships, but at the same time, the wisdom of using lightly armored ships in the heat of battle was very much in doubt.

By 1911, the focus had almost entirely reversed. The solutions put forth considered the battlecruiser as a ship for screening, scouting, and independent action, with the fast wing role as a secondary concern. In the 1911 reports there are none of the extreme caveats that marked battlecruiser discourse in 1909 and 1910. Battleships might be more important, and the money not on the table for battlecruisers, but the reader gets a palpable sense that the ships were *necessary* or at least desirable at some point in the U.S. Navy's near future. If battlecruisers were not necessarily useful for fighting in the major battles most American officers assumed would decide future naval wars, the emphasis placed on scouting and screening suggests that they were seen as a key element of making sure such battles occurred at a time and place conducive to American success.

Of course, the 1911 Conference was more than a debating society. Like its predecessors, it also played host to tactical and strategic war games, allowing the attendees to test out and modify war plans for, this year, Japan. Contained within the Conference's report is a rulebook for the strategic and tactical games, which includes the numerical values assigned to various classes of ship for the purposes of the games; the data for dreadnought and pre-dreadnought battleships, armored cruisers, and battlecruisers is provided below:⁴⁴

⁴⁴ Data from Volume 4 of 1911 Conference records. Columns two and three refer to the strategic board game and columns four and five to the tactical game. Columns two and three are also accurate for 1910.

Class	Speed (kts)	"Fighting Value"	"Life Points"	"Normal Gun Fire"
[Dreadnoughts]	21	30	100	1
[Pre-Dreadnoughts]	16	20	67	$\frac{2}{3}$
Battleship Cruisers	25	20	67	$\frac{2}{3}$
Armored Cruisers	20	10	33	$\frac{1}{3}$

By 1911, the designs of battleships and armored cruisers had become more or less standardized across the major navies. Comparing battleships of the same date shows that although national philosophies shaped design—German battleships with more armor and slightly smaller guns, for example—the differences were small enough that they could be treated as the same for war gaming purposes.

Battlecruisers, as defined by the U.S. Navy, were more fluid. Classification seemed to rest on the size of a ship's largest guns, since the German *Blücher* was classified as an armored cruiser based on its 8.3" main battery (although it could steam at 25 knots), and the Japanese *Tsukuba* as a battlecruiser. In other words, the American definition of battlecruiser ran the gamut from the 21-knot 4x12" *Tsukuba* to the 28-knot, 8x13.5" gun *Lion*. Whatever the class, for the game to assign battlecruisers as much survivability (i.e. armor) as pre-dreadnought battleships was a baffling decision, which might perhaps have been fair for the well-armored *Von der Tann*, but certainly not any other extant battlecruisers in 1911.⁴⁵

Indeed, the values ascribed to battlecruisers in the War College's war games were sufficiently divorced from prevailing designs to make one wonder if they represented an

⁴⁵ In the absence of unambiguous evidence pointing in a particular direction, I am inclined to think that the battlecruiser figures reflect the initial conclusions reached by the War College on battlecruisers from the 1907 board exercise.

ideal for a theoretical American ship than an attempt to reflect reality. The War College records are incomplete concerning the raw data for early war gaming, but it is worth wondering if the war game's one-size-fits-all approach to battlecruisers played a role in American planning.

Issues with the war gaming system cropped up in 1911, though in a different context. Towards the end of the Conference, the topic of Commander Frank Schofield's torpedo battleship again came up, and it was subjected to testing on the game board. The committee assigned to the project determined that Schofield's assumptions concerning his ship's ability to encircle an enemy fleet and deliver a torpedo attack unsupported were themselves unsupported, and suggested that a torpedo element to the fleet would be best delivered by squadrons of destroyers.⁴⁶

Schofield, a member of the committee, disagreed, penning a minority report that alleged six major errors in the committee's testing: inexperienced players, "game board conventions that did not represent the truth within . . . reasonable limits, severe limitations on the performance of torpedoes, an underestimation of "surprise tactics," underestimation of "the value of an imposed defensive attitude," and that the torpedo battleship was only tested against "the most modern of fleets." He concluded his report by alleging that any result could be gained on the game board "if suitable conventions are adopted," and that the failure of the committee to recognize the paradigm-shifting value of his invention skewed the results.⁴⁷

⁴⁶ Naval War College Tactical Committee, "Report on the advisability of including Torpedo battleship proposed by Commander F.H. Schofield, in the building program for 1912," September 20, 1911, Box 113, Folder 2, RG 8, NHC, 1-3.

⁴⁷ Commander F.H. Schofield, "Minority Report," September 21, 1911, Box 113, Folder 2, RG 8, NHC, 1-6.

Taken as a whole, Schofield's gripes were exactly what they seem: a rant from a sore loser. Still, Schofield made a number of valid points about the nature of the War College's games. Although skill and familiarity with the rules played a role in which side won or lost (and we may safely ignore Schofield's criticism in those areas), the underlying numbers could play a major role in the outcome, especially in smaller scale tactical games. If the assigned values reflect the initial War College attempt to analyze HMS *Invincible* in 1907, it might explain why the War College was so bullish on the British ship in the fast wing role.

The War College's deliberations in 1911 seem to have had a tangible impact on the Board at the Conference. Towards the end of the Conference, on August 29, the Board asked the Bureau of Construction and Repair to look into potential designs for a 29-knot battlecruiser with eight 14" guns, twenty-four 5" guns, and whatever armor could be fit onto a hull of less than 30,000 tons. Using *Lion* as a rough guide, these instructions were for a ship with rather light armor, certainly when compared to German battlecruisers, suggesting that the General Board was essentially in agreement with the Conference's findings on the proper role for battlecruisers.⁴⁸

The 1911 Conference was also the start of a new program at the War College. Alongside the officers assigned for "instruction" at the War College for the summer months were the members of the new "Long Course," a year-long program of intensive instruction, simulation, discussing and writing for four students, including Sims, now a captain and fresh from commanding a battleship in the Atlantic Fleet.⁴⁹ The Long Course was an attempt by

⁴⁸ Friedman, *U.S. Cruisers*, 62.

⁴⁹ The future careers of all four students justify the decision to intensify War College education. Sims, of course, went on to command U.S. Navy forces in Europe during World War I. The other students were Commanders J.S. McKean and Yates Stirling, who would both reach flag rank and Captain E.H. Ellis, USMC, who greatly contributed to the Marines' development of amphibious warfare before his premature death in 1923.

War College faculty to teach the principles of warfare, strategy, and tactics to a small group of elite students; adding value instead of merely collecting the wisdom of the yearly conferences.⁵⁰ While the Conferences had an educational component, war gaming and the annual questions were clearly at the heart of the experience even if, as we have seen, the Conference's opinions could shift wildly from year to year based on the attendees. With the Long Course, the College could, in theory, mold the next generation of flag officers.⁵¹

The Long Course also took some of the sting out of the War College losing most of its planning functions. To break a deadlock on the Board, the War College had been given full control over development of operational war plans in late 1910. The College's war plan, presented in the fall of 1911, was too pessimistic for some General Board members, and came under attack, especially from Fiske.⁵² Raymond Rodgers, the War College President protested that the college's tiny staff could not be expect to train officers and plan for wars without more officers and an in-house planning staff. Secretary Meyer demurred, and handed responsibility for war planning back to the General Board.⁵³

Despite losing the responsibility, the War College was on the cusp of a much greater contribution to war planning. Starting in 1910, the War College experimented with the "applicatory system" of exercise used in the Army War College and foreign, especially

⁵⁰ Ronald Spector's *Professors of War* argues that the War College was considered a rather unimportant part of the American naval establishment in 1911, but his argument rests on formal signifiers of importance. It is true, for example, that War College attendance was not a *formal* prerequisite for high command, but the percentage of war college graduates in important positions like the General Board was far above their percentage of the senior officer population at large. Still, without an established program of intensive training, the U.S. Navy, like the Royal Navy, lacked a corps of officers with training in a strategic-minded direction.

⁵¹ Ronald Spector, *Professors of War: The Naval War College and the Development of the Naval Profession* (Newport, RI: Naval War College Press, 1977), 121-4.

⁵² Miller, *War Plan Orange*, 80-1.

⁵³ Bönker, *Militarism*, 271-2.

German, military schools. The Naval War College version was based on large-scale war games:

When a problem had been decided upon, the staffs of both sides would prepare monographs on the armed forces of the two states and their economies, supplies and natural resources. In the next phase, they prepared studies of the time required for mobilization in each state. Then studies were prepared of the logistic capacities of each side and estimates made of the time necessary for supplies the main bases to reach the theatre of operations. The last phase was the actual conduct of the map maneuver as a two-sided game.⁵⁴

As Spector noted, all phases of an applicatory exercise were excellent training for staff work and, to a lesser extent, operational command. In fact, the entire applicatory system, except the map exercises, *was* staff work, and could be adapted for use by staff officers with no modification.⁵⁵ As will be discussed below, this is precisely what happened when the U.S. Navy developed a working staff system in the First World War.⁵⁶ As an added bonus, actual war plans written under this system could be tested at the War College with a minimal level of adaptation. By late 1911, when W.L. Rodgers assumed the War College Presidency, the applicatory system was on its way to become the foundation of training at Newport.⁵⁷

The applicatory system also allowed the War College to push for the development of a naval doctrine in the U.S. Navy. Using the system to “send identical clear and concise orders to all his subordinates, a commander could ensure that his plans would be carried out

⁵⁴ Spector, *Professors of War*, 118.

⁵⁵ See, for example *The American Naval Planning Section, London* (Washington: Government Printing Office, 1923), a collection of memoranda from the WWI U.S. Navy headquarters in Europe. Absent the context, they read like Newport student exercises.

⁵⁶ Of course, the applicatory system was only as good as its output. Into the 1920s, the political analysis in Office of Naval Operations war plans remained painfully amateurish.

⁵⁷ Bönker, *Militarism*, 270-3 and Spector, *Professors of War*, 117-19. See also Captain W.L. Rodgers, “The Field of Work to be Filled by a Naval War College,” *Proceedings*, June 1911, 353-77, which lays out Rodgers’s ideal at greater length.

precisely as he had envisioned them.⁵⁸ The perfect example of this system in action is the Atlantic Torpedo (Destroyer) Flotilla, which Sims commanded after his War College tour. Although Sims, a gunnery expert, expected and preferred command of a new battleship, his time with the destroyers proved valuable. Aided by Commander William V. Pratt and Lieutenant Commander Dudley Knox, who had been War College staffers during the first Long Course, Sims set about applying the new Newport methods to the operation of his flotilla.⁵⁹

Speaking at the War College on the back of that experience in 1914, Sims marveled at the effect the applicatory system and other new methods had on his torpedo flotilla. In addition to making major decisions by a “conference” of the flotilla’s officers, Sims and his subordinates tested and developed a torpedo attack doctrine that allowed them to:

[M]ake a fairly successful attack immediately after receiving information as to the area within which the ‘enemy’ may be found. Not long ago it required a written order of over 1200 words and blue print to tell the individual destroyers what they had to do. Through the use of the doctrine, the flotilla can now make a more successful attack upon receipt of a radio message of about 30 or 40 code words.⁶⁰

In other words, the applicatory system helped with both the development of a successful attack doctrine, and provided the means to carry it out efficiently. Combined with the intense training on offer with the Long Course, the applicatory system deepened the sophistication and rigor of American war planning.⁶¹ As Long Course graduates like Sims moved into positions of responsibility in the First World War and after, they brought the tenets of the system with them, making it standard U.S. Navy practice.

⁵⁸ Spector, *Professors of War*, 119-20.

⁵⁹ Morison, *Sims*, 2929-312.

⁶⁰ Sims, “Naval War College Principles and Methods,” *Proceedings*, March-April, 1915, 391-2.

⁶¹ Bönker, *Militarism*, 273.

That first Long Course class spent a great deal of time on battlecruisers, and would present their opinions at the 1912 Conference. Before then, Sims, the start pupil, outlined his own thinking in two pieces he wrote late in 1911. The first, to Admiral H. B. Jackson, the director of the Royal Naval War College, asserted that “battleship cruisers of the *Lion* type” were essential to the functioning of a major battle fleet, and argued that the U.S.’s lack of battlecruisers was endangering the battle line. Interestingly, Sims’s support was conditional on the size of the U.S. Navy; while prior decisions against battlecruiser construction were defensible, by late 1911 he felt that U.S. Navy had sufficient battleship strength to allow for the diversion of resources to battlecruisers.⁶²

The next month, William Rodgers, the new President of the U.S. War College, forwarded one of Sims’s Long Course reports to Secretary Meyer. Based on war games conducted during the Course, Sims’s piece, and its cover letter essentially gave the 1911 Conference’s conclusions on battlecruisers the stamp of official War College approval. Rodgers’s letter and Sims’s report both argued that the *Lion*-type battlecruiser would, in Sims’s words, “enable a Commander-in-Chief to drive in the enemy’s screen and prevent his own screen being pierced,” while adding firepower to the line in a pinch. Sims’s report also came with an endorsement extracted from a letter written to him by one of his many Royal Navy contacts.⁶³ This officer took much the same stance as the Americans on the uses of battlecruisers, but also considered their role in the fast wing as “of inestimable value.”⁶⁴

⁶² William Sims, Letter to Admiral H.B. Jackson, RN, November 2, 1911, Box 21, William Sowden Sims Papers, Manuscript Room, Library of Congress.

⁶³ With the information given in the letter it is impossible to determine exactly who Sims’s mystery officer was.

⁶⁴ William L. Rodgers and William S. Sims, Letter to the Secretary of the Navy, December 12, 1911, RG 80, item 9469-48, NARA Washington.

The letter from the War College came in after Secretary Meyer had drafted his annual report for Congress, so there is no way of knowing if it would have affected his conclusions, but the report Meyer wrote echoed the General Board and Summer Conference's conditional support for battlecruisers. Expanding the American battleship fleet took priority over battlecruisers, "which cannot be regarded as equal to a battleship of the best type in general usefulness." Meyer formally requested a two-battleship program, but did inform congress that a battlecruiser beyond the two battleships would "most desirable," though apparently not important enough to place in the departmental budget.

Still, even this weak support for battlecruisers by the Navy's policy-making organs represented a change from the prior year. At the same time, the 1911 Conference had entirely changed the direction of American discourse on battlecruisers, shifting from primarily considering them as a fast wing, to viewing them as cruisers in the original sense of the word; ships intended for detached operations away from the line of battle. This viewpoint had been adopted by the Conference without the fireworks of the past two years and was formally endorsed by the President of the Naval War College who was, of course, a member of the General Board.

This understanding of the battlecruiser laid out in 1911 would remain the basic American view on battlecruisers through the Washington Conference of 1921-22. Although there would be disputes over how much the ships could contribute in a fleet action, most in the U.S. Navy accepted that, if built, their primary role would be away from the fleet. The only outstanding issue was the question of relative importance. Sims and, by implication, Rodgers had endorsed the second-generation battlecruiser as a key part of the fleet, but the Board and the Secretary were obviously unwilling to go quite that far. It remained to be seen

how important the scouting role truly was to the policy makers in the United States. In 1911, the general impression given is that Meyer and the General Board thought that the Navy's funding was enough to allow battlecruisers or battleships, but not both.

In Britain as well, battlecruiser construction was sacrificed due to budget constraints in the 1912-13 program. Although the Royal Navy had a budget beyond the dreams of even the most ardent American navalist, the constant increases in British naval expenditures were an increasingly heavy burden on the resources of the state—perhaps as much as 25% of all government spending.⁶⁵ The new First Lord, Winston Churchill, confronted a host of challenges when he moved to the Admiralty—Germany, the lack of a naval staff, stagnant ideas amongst senior admirals, just to name a few—but the money issue was the most threatening. Whatever his personal views on their utility and employment battlecruisers were axed because of the financial pressures on the Admiralty.

Early in Churchill's term, the Royal Navy shed the last bits of Fisher's global strategy, even though Fisher and Churchill were active correspondents, especially once Churchill assumed his duties at the Admiralty. In Churchill's first few months, Fisher sent a stream of letters, trying to win the younger man over to his ideas on strategy, construction priorities, and ship design. At the heart of Fisher's proposed suggestions was a suggestion to

⁶⁵ Sumida, *Defence*, 343-5. For the 1912-13 fiscal year, Royal Navy spending accounted for approximately £47.5 million out of total government expenditures of £188.6 million.

drop battleship construction in favor of a new type of battlecruiser guaranteed to “stagger humanity!”⁶⁶

Fisher’s battlecruiser was a 30-knot ship armed with eight of the new 15” guns under development by the Ordnance department.⁶⁷ This speed was achieved by both a switch to oil-fired engines, a dramatic increase in length, and a reduction in armor. Although Fisher, no engineer, never developed a sketch design of his ideal ship, his December 6 letter to Churchill gives some sense of its armor protection:

Ship designers] are always running about to see where they can put on a little more armour! To make it safer! You don’t go into battle to be safe! No, you go into battle to hit the other fellow in the eye first so that he can’t see you! Yes! You hit him first, you hit him hard and you keep on hitting. That’s your safety! You don’t get hit back! . . . [D]isassociated from dominating speed that gun is futile . . . [b]ecause you want to fight when you like, where you like and how you like! And that only comes from speed. . . A big margin of speed over your Noah’s ark Dreadnoughts of 21 knots!”⁶⁸

In his previous writings, Fisher had been somewhat unclear as to the intended use for his battlecruiser; at times implying that their main role was sea control against enemy cruisers, and at time suggesting that they could handle battleships unaided. Here, however, Fisher’s language was unequivocal: through firepower and speed, Fisher expected a fleet composed of such vessels to defeat a fleet of dreadnoughts in battle.

Fisher, of course, had originally been appointed First Sea Lord in part due to his commitment to economy, and in his letters to Churchill, he claimed that his new ship would dramatically cut costs despite its speed and size. According to Fisher, his ship would cost approximately £1,995,000, as opposed to £1.9 million for the 1911-12 program’s *Iron Duke*-

⁶⁶ Fisher to Churchill, November 10, 1911, CHAR 13/2, Churchill College Archives Centre, Cambridge, UK.

⁶⁷ Fisher, letter to Churchill, November 10, 1911, CHAR 13/2.

⁶⁸ Fisher, Letter to Churchill, December 6, 1911, CHAR 13/2.

class battleships, and £2.2 million for *Tiger*, its only battlecruiser. Although the touted cost savings seem minor, Fisher was presumably anticipating the potential cost of the 1912-13 program's ships if the Royal Navy persisted in the "d—d costly" standard dreadnought model with heavy armor and 21 knots' speed, which Fisher dubbed the "Tortoise" type.⁶⁹

Fisher's reasoning appears to have swayed Churchill, but in the face of a united front from the Board led by Bridgeman, a longtime battlecruiser opponent, the 1912-13 Estimates did away with battlecruisers altogether.⁷⁰ Instead, the Admiralty built four "fast battleships" of a new type, a hybrid between dreadnoughts and the already-hybridized battlecruisers. The *Queen Elizabeth*-class ships had the eight 15" guns of Fisher's battlecruiser concept, but instead of a lightly armored 30-knot vessel, the new warships topped out around 25 knots. To achieve that speed, weight was saved as much as possible. In addition to the oil firing engines, Philip Watts, the Director of Naval Construction, shaved as much armor as he could off of the design. Although the armor's maximum thickness was a respectable 13", the armor belts tapered off rather quickly at the ends of the ship and, of course, the design had one fewer turret than previous generations of British battleships.⁷¹

Tactically, the new British battleships were designed for the always-elusive "fast wing" role, which the Royal Navy had tended to assign to battlecruisers. Indeed, the *Queen Elizabeths* were designed *only* for the fast wing. While 25 knots was faster than the 21-knot dreadnought standard adopted by the other major navies, it was not enough to keep up with the newest battlecruisers, making the ships less useful for the sort of flotilla and scouting

⁶⁹ Fisher, Letter to Churchill, December 3, 1911, CHAR 13/2. The figures for *Tiger* and *Iron Duke* are from "Summary of Draft Navy Estimates, 1913-14," January 1913, ADM 116/3151, TNA, Kew.

⁷⁰ N. Lambert "Admiral Sir John Fisher & Flotilla Defence," *Journal of Military History*, Vol. 59, No. 4 (October 1995), 645.

⁷¹ Breyer, *Battleships and Battle Cruisers*, 141.

work that battlecruisers were capable of performing. Their cost also exacerbated the financial problems facing the Admiralty. At a cost of 2.4 million pounds, *Queen Elizabeth* was 500,000 pounds more expensive than the *Iron Duke*-class battleships of the previous year's program, and still 200,000 pounds more costly than HMS *Tiger*.⁷²

In a sense, it is somewhat incorrect to claim, as I did earlier, that the *Queen Elizabeths* signaled the end of battlecruisers in the Royal Navy. Instead, it would be better to say that the new ships signaled an end to Fisher's influence over the British battlecruiser program. Whatever their official designation, the new battleships filled the same niche that many British officers placed their battlecruisers in. These warships were fast wing vessels *par excellence*, designed from the keel up to serve in that role. From that perspective, they represented a rationalization of British policy: instead of shoehorning battlecruisers in a role they were not quite intended for, the Churchill Admiralty recognized standard practice in the active fleet and adjusted construction accordingly.⁷³

In the realm of national policy, Churchill's 1912-13 Estimates suggested a temporary suspension of the two-power standard that had formed the backbone of British naval planning. In its place would be a commitment to keep new British dreadnought construction (counting battlecruisers as dreadnoughts) at a level 60% above the *Kaiserliche Marine's* new construction.⁷⁴ Not only would this shift save money, requiring the Royal Navy to build only four capital ships over the next year, but it also reflected changing political realities.

⁷² MacNamara, "Reports of the Finance Committee of the Admiralty on the Sketch Navy Estimates 1913-14."

⁷³ N. Lambert suggests that *Queen Elizabeth* also represented an attempt to prod the Germans towards forswearing battlecruiser construction. Britain could always keep a lid on the German battleship fleet, but if German battlecruisers broke out of the North Sea, they could cause serious trade difficulties. Lambert, "Bridgeman," 59-60.

⁷⁴ Winston Churchill, Memorandum for Cabinet, December 29, 1911, ADM 116/1294B, TNA.

Although the Entente was not a formal alliance, the last year's Agadir crisis highlighted how firmly embedded Britain was in the Franco-Russian alliance. Formally allied with Japan, and with no conflicts with the United States in view, the two-power standard was clearly an expensive relic. Indeed, if anything, the 60% standard was itself rather conservative.

Even if the 60% standard was a step in the right direction, the expense of the *Queen Elizabeths* sabotaged any attempts to save money in the realm of construction for the 1912-13 Navy budget. The £500,000 gap between the cost of *Queen Elizabeth* and *Iron Duke* was rather more substantial than the typical difference between subsequent ship classes; it was even about three times the difference between the cost of *Dreadnought* and *Lord Nelson*.⁷⁵ Indeed, *Queen Elizabeth* was more expensive than *Tiger*, restoring the traditional relationship between battleship and cruiser costs. Still, *Tiger* was a one-off, and there were four *Queen Elizabeths* in the 1912-13 budget (colonists in Malaya, unprompted, funded the construction of a fifth, HMS *Malaya*). If these "fast battleships" were the last word in capital ship construction, next year's ships could be reasonably expected to be even more expensive. Combined with their more-expensive fuel, the *Queen Elizabeths*, whatever their military merit, were a looming financial disaster.

To their credit, Churchill and his advisors were well aware of this dynamic. Within the Admiralty, the Board's Finance Committee had been reconstituted in mid-1911 with an eye towards curbing expenses, but for the 1913-14 Estimates, it was reduced to rationalizing the continued increase of the naval budget, estimated at approximately one million pounds for the upcoming year.⁷⁶ At the heart of their explanation was an understanding that the

⁷⁵ "Summary of Draft Navy Estimates, 1913-14."

⁷⁶ "Reports of the Finance Committee," i.

savings promised by Fisher had merely kicked the can down the road. Under the “‘Scrapping’ policy of 1904-5,” the Admiralty shed the costs associated with a thousand vessels and saved administration costs with the closure or reduction of most overseas Stations. While these provided a one-time reduction in the Admiralty’s costs, by 1908-9, the gains from that policy had disappeared.⁷⁷

Not only had Fisher’s reforms failed to make a structural change in Admiralty finances, his introduction of dreadnoughts and battlecruisers had supercharged the naval arms race, increasing the amount by which each class was costlier than its predecessor. Just as important, the increasing technological sophistication of warships made them “more rapidly obsolescent. . . . Up to within a few years ago you could give a Battleship 20 years of life in the front rank. You will be fortunate now-a-days if she is not left out-classed before much more than half that time has elapsed,” a point illustrated with the increasing cost of ever-larger guns and shells.⁷⁸

Of special note in this process was speed, Fisher’s favorite attribute, and his key contribution to British ship design. As an illustration of associated costs, the Committee estimated the price for a given speed in a 22,500-ton battleship and a 26,000-ton battlecruiser (by the *Lion/Orion* generation, British battlecruisers were heavier than their battleship counterparts due to engine weight):

Speed (knots)	Cost for Battleship (£)
19	220,000
20	240,000
21	265,000
22	330,000

⁷⁷ “Reports of the Finance Committee,” iv.

⁷⁸ “Reports of the Finance Committee,” v.

	Cost for Battlecruiser (£)
25	400,000
26	430,000
27	480,000
28	555,000

Even more than firepower, speed dramatically increased the cost of a given ship, the cost of each marginal knot much higher than the last. Fuel costs also went up hand-in-hand with speed, the committee calculating that the price of keeping a battleship fueled for a year had gone up approximately 70% since 1903 due to increased expenditure.⁷⁹ Naturally, the weight of these figures fell more on battlecruisers than their slower brethren. The primary attribute of the lighter ships was speed, and speed was a critical part of the improvements made from class to class. On the other hand, apart from the *Queen Elizabeths*, the top speed of dreadnought battleships in all navies had hovered around 21 knots since the introduction of the type.

Churchill and the board seized on the suppression of battlecruisers in presenting the Estimates to the Cabinet in January 1913. In a note attached to the summary of the Estimates given to the Cabinet, Third Sea Lord Archibald Moore announced that the Board had “come to the conclusion that the most costly vessel should also be the most powerful, and a new type of fast battleship (“Queen Elizabeth”) . . . will, it is believed, eliminate the battle cruiser.” In Moore’s telling, the replacement of the battlecruiser allowed the Admiralty to give up “the almost extravagant demands of the battle cruiser type for a thoroughly superior

⁷⁹ “Reports of Finance Committee,” vi.

tactical advantage in Fleet action.”⁸⁰ This conclusion suggests that the Royal Navy, like its American counterpart, was having doubts about the survivability of battlecruisers in battle.

Replacing battlecruisers with a somewhat less expensive battleship substitute was not enough, though. Five capital ships were needed in the 1913-14 fiscal year to keep pace with Germany and building five *Queen Elizabeths* would have been financially and political infeasible. Instead, the Admiralty, in a change from standard practice, introduced the *Revenge*/*Royal Sovereign*-class battleships, which were slower, smaller, and cheaper than the *Queen Elizabeths*. With the same armament, and comparable armor, the main savings came in propulsion. Unlike the oil-fired *Queen Elizabeths*, the R-class returned to cheaper coal. Designed to achieve speeds of 23 knots, they also required far less in the way of engine equipment. Overall, the switch saved nearly £300,000 per ship.⁸¹

Having turned away from the Fisher program in shipbuilding, Churchill’s Admiralty also scrapped his grand strategy. Fisher had been a firm proponent of the “fleet unit” system worked out at the 1909 Imperial Conference, whereby Australia and New Zealand agreed to fund a battlecruiser each, along with assorted smaller ships, for service in the Far East and Pacific. In theory, these two fleet units could exercise control of the region’s sea lanes and overpower any German attempts at cruiser warfare in the area. In fact, these fleet units, composed of battlecruisers, light cruisers, destroyers, and submarines, were probably the closest Fisher came to putting his unfiltered ideas into practice.

⁸⁰ Rear Admiral Archibald Moore, “Note by the Third Sea Lord on the Increase in Size and Cost of Capital Ships,” in “Summary of Draft Navy Estimates, 1913-14,” January 1913, ADM 116/3151, TNA, Kew, 3-4. Ironically, Moore briefly commanded a battlecruiser squadron during the Great War.

⁸¹ Churchill, “Naval Estimates, 1914-15,” January 10, 1914, ADM 116/3152, TNA, Kew.

The fleet unit plan remained on track under McKenna and Wilson after Fisher was forced out, but Churchill's Admiralty saw the prospective fleet units as a profligate waste of two powerful warships that could best be used against the High Seas Fleet in the North Sea.⁸² Furthermore, moving them "home" to the North Sea would save money; supplying and maintaining major warships at the Antipodes was much more expensive than utilizing the extant infrastructure in Europe.⁸³ HMAS *Australia* was the property of its eponymous dominion, and the flagship of its navy, but HMS *New Zealand* was a gift to the Royal Navy. The ship was originally earmarked for the China Station, and funded by the New Zealand government with the expectation that it would be used in the Far East. In early 1912, the Admiralty informed New Zealand that the ship would instead be sent to the North Sea upon its commissioning later that year, promising that an armored cruiser would be sent in its place.⁸⁴ The New Zealand government was understandably upset (especially after the promised armored cruiser turned out to be the light cruiser *Hampshire*), to the point of sending its Defence Minister to London for a set of frosty discussions with Churchill and the CID, but legally the ship was British, and there was nothing they could do to change the decision.

Churchill also ran into roadblocks when the Admiralty attempted to remove battleships from the Mediterranean Fleet. The proximate spark was the 1912 German navy law, which did not dramatically expand the *Kaiserliche Marine*, but provided for a greater proportion of it to remain fully manned in peacetime, renewing fears of a German "bolt from

⁸² Christopher M. Bell, *Churchill and Sea Power* (Oxford, UK: Oxford University Press, 2013), 18-19.

⁸³ N. Lambert, "Bridgeman," 68.

⁸⁴ Governor-General John Dickson-Poynder, telegram to Admiralty, May 1, 1912, ADM 116/1270, TNA.

the blue” attack. Combined with the growing strength of the Austro-Hungarian and Italian navies, maintaining British preponderance in the Mediterranean was nearly impossible in the short term.⁸⁵ Instead, Churchill suggested recalling the Atlantic Fleet from Gibraltar to southern England and taking the Mediterranean Fleet from Malta to Gibraltar, using them as a reserve that could either reinforce the Home Fleet or assert British power in the Mediterranean.⁸⁶ Within the Mediterranean itself, Churchill suggested applying Fisher’s ideas of flotilla defense and using a force based on submarines, destroyers, and light cruisers to protect British trade and interests on a budget.⁸⁷

The opposition in this case was rather more formidable than the New Zealand government. Arrayed against it were the Foreign, War, and Colonial Offices, as well as the British-controlled Egyptian Government, none of which could be waved away. In the wake of Churchill’s proposal, both the General Staff and Foreign Office wrote memos for the CID on the supposed dire consequences of the Mediterranean battleships leaving for Gibraltar. The War Office claimed that removal would open up Malta to an Italian invasion and potentially allow Austria-Hungary to attack Cyprus.⁸⁸

The Admiralty argued that they simply could not spare any battleships from the North Sea, and maintain the desired 3:2 ratio over Germany.⁸⁹ Under pressure from other

⁸⁵ Churchill to Cabinet, “Admiralty Memorandum on New German Naval Law,” March 1912, ADM 116//1294b, TNA.

⁸⁶ *Policy and Operations in the Mediterranean 1912-1914*, ed. E.W.R. Lumbay (London: Navy Records Society, 1970), 3-5.

⁸⁷ Bell, *Churchill and Sea Power*, 19-20.

⁸⁸ CID memos 1912 No. 12 and 1912 No. 13, May 9, 1912, CAB 38/20, TNA.

⁸⁹ This point was rather disingenuous. As the Admiralty was well aware the 3:2 standard agreed upon in Cabinet referred to *total* British construction, not the ratio of forces in the North Sea. Essentially, the Admiralty created a construction standard of 3:2 *plus* whatever was deemed necessary in the Mediterranean, their pound of flesh for bending to the will of the CID on the Mediterranean question. The entire issue of ratios in prewar British

departments, the Admiralty agreed to an eventual eight-battleship Mediterranean fleet, all eight ships coming from subsequent supernumerary construction, including three to be funded by the Canadian government.⁹⁰ In the meantime, the Admiralty suggested holding the Mediterranean with a fleet based on two, later four, battlecruisers. When added to French forces in the region, the Admiralty claimed, the battlecruisers would be sufficient to ensure Entente hegemony in the area.⁹¹

The exact role for these ships was unclear. According to Churchill, they were “units of the greatest value and strength,” but did not represent an equal or superior replacement to a squadron of battleships. Instead, these vessels, which “need never fight unless they choose, and can always fight whenever they wish,” held out a chance to keep the Austro-Hungarian and Italian navies off balance if war came before the new eight-battleship Mediterranean fleet became available. Indeed, he seemed to place far more trust in the abilities of destroyers and submarines when it came to defending Egypt and Malta. It is difficult to escape the conclusion that four battlecruisers were to be placed in the Mediterranean for the purely negative reason of saving four battleships for the North Sea.⁹²

planning has been the subject of a lively debate between N. Lambert and Christopher Bell in the pages of *War in History* (Vol. 18, No. 3; Vol. 19, No. 2; and Vol. 20, No. 8).

⁹⁰ CID Meeting, July 11, 1912. CID 1912 No. 27, CAB 38/21.

⁹¹ Churchill to Cabinet, “Naval Situation in the Mediterranean,” June 15, 1912, ADM 116/1294b, 5. This reliance on the French Navy was seen as a temporary measure, and almost no groundwork was laid in ensuring that the much-reduced Mediterranean Fleet could cooperate with the French in the event of war.

⁹² CID Meeting, July 11, 1912, 12.

By the end of 1911, the attitude of the British and American navies towards battlecruisers had undergone another set of transformations. In the United States, the General Board confirmed the War College view that battlecruisers were better suited to a scouting role, while the Admiralty Board announced its intention to do away with battlecruisers altogether. The two cases present stark dissimilarities—especially the difference between firm British policies and weaker American “preferences”—but in both cases, the shifts reflected serious attempts to meet each navy’s strategic challenges.

As constituted in 1911, the U.S. Navy hardly needed battlecruisers to aid the battle line in combat. In fact, despite the General Board’s protestations and dark warnings, the battleship fleet in the Atlantic was practically the only part of the U.S. Navy fit for purpose. The U.S. might not have had as many battleships as the navalist officer corps desired, but as a percentage of the total fleet, the U.S. Navy was rather top heavy. Even if the Navy’s leadership could not find itself in them to stop asking for battleships, their mild support for battlecruisers suggested that they at least recognized a problem.

Battlecruisers represented a comprehensible solution to the U.S. Navy’s scouting and coverage problems. Rather than investing in smaller warships (which may have raised uncomfortable questions about naval necessities with the Secretary and in Congress), battlecruisers preserved the big-ship focus of the U.S. Navy’s building program, essentially functioning as the battleship of the flotilla. More practically, in the event of war, battlecruisers built for Pacific service would do a better job of keeping the Japanese fleet off balance than the smaller cruisers in the Asiatic Fleet. At the very least, their speed and firepower gave them a chance to survive long enough for the Atlantic fleet to make the long trek around Cape Horn.

Likewise, the Royal Navy's attempt to do away with battlecruiser construction represented a reasonable appreciation of battlecruiser practice in the Royal Navy. Whatever Fisher had intended them for, neither officers in the active fleet nor the Admiralty Board shared his views. By late 1911 or early 1912, the fleet unit plan seemed hopelessly unrealistic to policymakers in Whitehall: a frittering away of precious capital ships in secondary theaters. The ships were being used operationally as screens and tactically as a fast wing to the Home Fleet's battle line. As Bridgeman indicated as early as 1908, their suitability for this latter role was questionable.

The *Queen Elizabeth* class of fast battleships were more suited to British naval practice. Faster than the battle line, their speed was not as excessive as the *Lions*, allowing for an armor scheme that at least approximated those of 21-knot dreadnoughts. The new fast battleships may not have been able to chase down commerce-disrupting cruisers, but they could serve as a fast wing, and had the recovery speed to steam a short distance away from the battle line, if a rallying point for the scouting and screening flotilla was needed.

Turning towards process, the examination of battlecruisers in 1911 worked in both countries about as well as their systems allowed. In Britain, the Admiralty Board developed the *Queen Elizabeth* class, in accordance with the operational needs of the fleet and the financial pressures on the government. In the United States, the General Board stopped shy of formally requesting a battlecruiser, but explicated a vision of it that lay outside of the fast wing role posited for it earlier.

CHAPTER 5: “NO ONE REALLY KNOWS THEIR FULL VALUE”

Just as the Royal Navy was moving away from battlecruisers, the U.S. Navy was beginning to accept them. Curiously, the reason for both shifts was the same: the perceived unsuitability of battlecruisers for the fast wing mission. In Britain, this led to the development of the *Queen Elizabeth* class of “fast battleships,” specially tailored for that elusive role. On the other side of the Atlantic, this unsuitability opened the door for the discussion of battlecruisers for scouting, screening, and “distantial” operations in mid-1911. Although no concrete designs came about, the Board’s description of ideal qualities pointed towards an American *Lion*: a high speed/low armor mix.

In both cases, the changes were based on sound reasoning flowing from the specific circumstances of each navy. Ever since he had first proposed building battlecruisers, Admiral Fisher’s plans for them had been modified almost beyond recognition. First, he had acquiesced to build them with battleship-grade weapons. Then, the opposition of the Admiralty board forced the construction of dreadnought battleships alongside the *Lion*. Finally, after his removal, the Churchill Admiralty did away with his fleet unit plan and tried to retrench in the North Sea. Along the way, standard practice in the Royal Navy appears to have treated the battlecruisers like a species of battleship. Under those conditions, replacing battlecruisers with ships designed from the keep up for fast wing warfare made perfect sense.

Likewise, the American shift towards battlecruisers reflected American practice and the strategic situation of the U.S. Navy. For a variety of reasons, some silly, some fair, American battleship doctrine did not place a premium on speed, concentrating instead on

armor and firepower. Viewed in that light, the General Board's firm refusal to consider battlecruisers as a supplement to the battle line made sense. At the same time, the Board's nod towards a Pacific role for the ships highlighted both the U.S. Navy's heavy tilt towards the Atlantic in warship distribution, as well as the fleet's dire lack of scouting assets.

Changes to the Admiralty's construction plans and ship distribution, as well as the General Board's tepid support for battlecruisers did not necessarily commit subordinates to a particular course of action. In both countries, 1912 and 1913 would be marked by attempts on the part of both services to grapple with the changes engendered by their leadership. In the United States, this was still a Newport-focused process—after all, the General Board had merely indicated a desire to consider building battlecruisers, but in Britain, this process brought in the officers in operational command of battlecruisers, as well as the brand-new Admiralty War Staff.

By 1912, the interplay between the General Board and the Naval War College was well established, and the battlecruiser issue merely provided another example of the system working. Analysis from the first War College Long Course and the 1912 Summer Conference sharpened the General Board's initial foray into battlecruiser designs. The War College also took the lead in examining the new British "fast battlecruisers," and input from War College staffers was one of the reasons the General Board declined to endorse the new ships.

In Britain, the Royal Navy's strategic apparatus continued to face difficulties. The *Queen Elizabeths* had an obvious place in the Royal Navy's battle fleet, but battlecruisers lacked a set role. The chaotic decision-making process in the Royal Navy failed to give them one. Instead, plans and suggestions from all quarters put forth a bewildering array of possible

missions for the British battlecruiser fleet. None, however, could be called “official.” As a result, when war came in mid-1914, the Royal Navy had no set battlecruiser doctrine—explicit or implicit—to guide their deployment.

Along with changes to naval finances and the distribution of the fleet, Winston Churchill played a major role in the creation of a naval staff, formally constituted in early 1912. With advice from Battenberg and officers at the War College, Churchill set up the Admiralty War Staff, with a Chief of War Staff supervising departments devoted to intelligence, mobilization, and operations. The step was hardly revolutionary; in form, it resembled the old intelligence and mobilization departments with a few extra clerks. Still, the changes finally gave the Royal Navy a body formally devoted to war planning, even if the operations section, split off from the previously independent mobilization department, proved unable to develop long-range plans beyond the opening stages of a war.¹

True to form, Churchill organized the War Staff to ensure that he retained an outside role in naval planning. The first chief of staff was Rear Admiral Ernest Troubridge, appointed without the knowledge of Bridgeman, who played very little role in the creation of the staff. To make matters worse, Troubridge, formerly Churchill’s naval secretary, was picked largely for his loyalty to the First Lord. Although his role was theoretically to provide naval advice to the First Sea Lord, Churchill decided that the Chief of Staff should report to the First Lord as well. This setup did little to improve naval administration and planning—

¹ Hamilton, *Making of the Modern Admiralty*, 225-6.

the First Sea Lord was free to ignore advice from the Chief of Staff, who had no responsibility for turning his plans into policy—but it suited Churchill’s desire to play an active role on the operational side of the Navy.²

In addition to the problems at the top of the War Staff, it lacked a body of trained officers to perform its necessary work.³ To help remedy this situation, the R.N. War College started a staff course for officers at the rank of commanders and below in 1912, likely on the initiative of Battenberg. Here, the purpose was to teach the rudiments of staff work, rather than the high-level theory and strategy taught at the War Course. Although the first class of staff officers contained some notable talents, at fifteen members, the course was too small to supply an adequate number of trained officers for staff work at the Admiralty and afloat.⁴

Intellectuals within the Royal Navy were unimpressed with the staff college, and it directly led to the formation of the *Naval Review* in 1912-13, a professional journal along similar lines to the American *Proceedings*, intended to provide some elements of the professional education denied to most naval officers.⁵ As Herbert Richmond noted in its first article, “[a]n officer may pass from the rank of naval cadet to that of . . . admiral, without having his attention drawn to . . . the higher side of his professional work—the side, in fact, that concerns him as a captain, and, more particularly, as an admiral.” While there was the War College, officers had “no incentive whatever to employ that portion of [their brains]

² Hamilton, *Making of the Modern Admiralty*, 225-6.

³ A. Lambert, “The Royal Navy and Officer Education,” in *Military Education Past, Present, and Future*, ed. Gregory C. Kennedy and Keith Neilson (Westport, CT: Praegar, 2002), 98.

⁴ Hamilton, *Making of the Modern Admiralty*, 244-5.

⁵ There was one key difference. *Proceedings* subscriptions were available to anyone willing to pay. The *Naval Review*’s circulation was initially limited to British officers, a handful of policymakers, and Julian Corbett, allowing the newer journal to touch on rather more sensitive topics.

concerned with analysis and reasoning before going there.”⁶ Richmond and the other six “young Turks” who started the journal were still unhappy with the quality of the staff course, as the makeup of the founding members suggests.⁷ Among the seven officers who started the *Review*, five had some connection to the first staff course at the War College: Commander Kenneth Dewar was an instructor, and four of the others were students.⁸

Unsurprisingly, the first issue of the *Naval Review* carried an article on education from Commander Reginald Drax (named Reginald Plunkett at the time), one of those four founders who was attending the staff course.⁹ In that article, Plunkett railed against an education system that started “with the Kings of England,” and finished “with the formulae of theoretically gunnery. We test the brain by compelling it to store the memory with interminable facts, and recite them parrot-like at examinations.” This system, then, deliberately avoided areas, like doctrine, where there was no immediate right or wrong answer: “Our dogma becomes this, that in order to avoid the dangers of heresies it is better to commit ourselves to no definite doctrine and no official accepted principles.”¹⁰

Despite the changes brought in under Churchill, the pessimistic stance taken by the *Naval Review*'s founders was essentially correct. With or without a staff, the Royal Navy

⁶ Richmond, “Introductory,” *Naval Review*, February 1913, 9.

⁷ James Goldrick, “The Irresistible Force and the Immovable Object: *The Naval Review*, the Young Turks, and the Royal Navy, 1911-1931,” in *Mahan is Not Enough*, ed. James Goldrick and John B. Hattendorf (Newport: Naval War College Press, 1993), 84.

⁸ James Goldrick, “The Founders,” in *Dreadnought to Daring: 100 Years of Comment, Controversy and Debate in the Naval Review*, ed. Peter Hore (Barnsley, UK: Seaforth, 2012), 1.

⁹ From 1916, Plunkett had the misfortune to be saddled with the unwieldy last name Plunkett-Ernle-Erle-Drax. The last three names were a condition for inheriting “substantial estates” from his mother’s Ernle-Erle-Drax family. Goldrick, “The Founders,” 12-13.

¹⁰ Reginald Plunkett, “Naval Education, Its Effect on Character and Intellect,” *Naval Review*, February 1913, 28-31.

remained weak where doctrine and strategy were concerned, a failure of education and institutions. Under Churchill's direction, the Royal Navy had stopped future battlecruiser construction, but upon the outbreak of war the service had the world's large battlecruiser fleet—ten in service or under construction—at its disposal. Despite having them, as the two years leading into the First World War would show, operationally and doctrinally the Royal Navy was no closer to figuring out how to use the ships already at their disposal than it was when they first entered service.

During the 1912 negotiations over British strategy in the Mediterranean, for example, Admiral Bridgeman had two opportunities to discuss battlecruiser strategy, and both times, he delivered highly suspect answers. On the first occasion, an Admiralty memo for the Cabinet concerning the movement of battlecruisers to Malta, Churchill credited Bridgeman with the following sentiments, quoted directly:

At present the British battle cruisers have an immense prestige in themselves; no one really knows their full value; it is undoubtedly great—it may be even more than we imagine. In the Mediterranean they could operate with great effect; their speed, their armour, their armament, are all great assets, even their appearance has a sobering effect.¹¹

As a statement of intent, this extract was remarkably fuzzy. Coming from Bridgeman, it was troubling. Even though he had been a critic of theirs during an earlier stint on the Board, “imagining” the value of battlecruisers was part of Bridgeman's job description, one that he had undoubtedly failed at. Seven years after Fisher's Designs Committee and four years after the *Invincibles* began to enter service, the First Sea Lord was unable to explain what these large, expensive ships were actually for. By mid-1912, the Admiralty had moved on from

¹¹ Churchill, “Naval Situation in the Mediterranean, June 15, 1912, ADM 116/1294b, TNA.

battlecruisers, but that does not explain the absence of a policy for the ships the Royal Navy had in commission and construction.

The next month, in a CID meeting attended by a Canadian delegation. Bridgeman had another chance to explain what the new ships were for, providing a more concrete, though still troubling, description:

Admiral Bridgeman explained that the functions of the battle-cruiser were scouting and heading-off and pursuing enemy ships, in which latter capacity they would be most useful in compelling an unwilling enemy to come to action by concentrating their fire on the rear of his line, and thus forcing him to accept this as the alternative to abandoning his rear ships.

During a battle action they would be used to concentrate their fire on the head or rear of the enemy's battle fleet, from a position exterior to their own line of battle, which their speed would enable them to reach: they would rarely be detached to any considerable distance from the battle fleets to which they were affiliated.¹²

If Bridgeman's statement was an accurate reflection of his feelings on the matter, one is left to wonder why he and the Board agreed, albeit under pressure, to send four battlecruisers to the Mediterranean to serve as the centerpiece of British power in the region. In the absence of British battleships, the fast wing mission would be impossible (there seemed little stomach in the Admiralty for that level of integration with French forces in the Mediterranean), pursuit of an enemy battle line ill-advised, and the scouting mission unnecessary.

Clearly, Bridgeman did not like battlecruisers, preferring the *Queen Elizabeth* class to future battlecruiser construction, but that was no excuse for his unwillingness to consider their role. Apart from scouting, the missions described above would be better suited to the capabilities of the more heavily armored fast battleships than they would be for the lighter battlecruisers. The ten British battlecruisers authorized to date, though, did exist (or soon would), and demanded a coherent doctrine. Instead, Bridgeman had essentially suggested

¹² CID Meeting, July 13, 1912, CID paper 1912 No. 30, CAB 38/21, 5.

two; in theory, the same ships could perform both roles, but would be hard-pressed to carry them out in the same engagement.

Bridgeman's claims suggest an incomplete rejection of Fisher's ideas, and a potentially dangerous mismatch between materiel and mission. Under Churchill, the Admiralty had abandoned Fisher's policy of using battlecruisers to secure sea control outside of the North Sea and Mediterranean, preferring instead to employ them in ways guaranteed to put them under the guns of battleships. At the same time, Churchill and Bridgeman seem to have implicitly accepted Fisher's argument that battlecruisers *could*, if necessary, successfully fight battleships, a dangerous assumption that their American counterparts had rejected two years earlier.

At least one officer in an important post was willing to go further than Bridgeman in tying battlecruisers to the battle fleet. Jellicoe, by now the commander of the 2nd Division of the Home Fleet (and effective second in command of the fleet) came to similar conclusions while writing up a set of "War Orders and Dispositions" for the fleet, in the event of Jellicoe having to assume command the whole formation if the commander was incapacitated in war. Throughout, Jellicoe assumed that battlecruisers would be an integral part of the battle fleet, assigning specific roles to them in the approach and before the engagement.¹³ In both cases, battlecruisers would ideally use their speed to take up positions on the van and rear of an enemy formation and engage the battleships there, in the hopes of forcing them to turn away,

¹³ The specific term Jellicoe used was "Fast Divisions." While this term was also applied to actual or potential squadrons of *Queen Elizabeth* type battleships in Britain and abroad, this document deals with the Home Fleet as it was in late 1911/early 1912, and could only possibly refer to battlecruisers.

masking some of their fire.¹⁴ Functionally, Jellicoe's conception of battlecruisers was indistinguishable from the "fast wing" role the U.S. Navy had rejected by the end of 1911.

Jellicoe's position on battlecruisers here is especially interesting because apart from Fisher, there was perhaps no one as intimately connected with the ships. He had been on the 1904/5 Designs Committee while serving as Director of Naval Ordnance and, as 3rd Sea Lord/Controller played a key role in the design of the *Lion*-class. Fisher had been fond of saying that the battlecruisers' speed was their armor, citing their ability to refuse combat with heavier ships, but here was Fisher's protégé explicating tactics that deliberately placed them under the guns of battleships.

Also writing on strategy around this time was Rear-Admiral David Beatty, Churchill's naval secretary, who would go on to command the Grand Fleet's battlecruisers in the first half of the First World War. Interestingly, Beatty advanced a third role for battlecruisers, lying between the scouting and fast wing roles discussed earlier. While he posited a role away from the main fleet for battlecruisers, he also advocated keeping battlecruiser squadrons concentrated, allowing them to serve as redoubts for dispersed light cruiser scouting lines, but not scout themselves. This disposition of forces, Beatty claimed, made the best use of both types' fundamental combat capabilities.¹⁵

Curiously, Beatty's memo also favored the close blockade strategy that had so horrified the CID—and most naval officers—during the Agadir crisis, and forced both McKenna and Wilson out of office. Unbelievably, Wilson's plan for a blockade had never

¹⁴ Jellicoe, "War orders and Dispositions . . . Prepared when in [command of] 2nd Division, Home Fleet," [Late 1911 or early 1912], in *The Jellicoe Papers*, ed. A. Temple Patterson (London: Navy Records Society, 1966), 23-5.

¹⁵ Rear-Admiral David Beatty, Memorandum for Churchill, April 7, 1912, BTY 2/3/6, Caird Library.

been superseded, and remained the only extant war plan, although Churchill, Bridgeman, and Home Fleet CinC George Callaghan all found it equal parts baffling and terrifying. Two days after Beatty's memo, the Admiralty board would formally rescind Wilson's plan, but the matter of a replacement remained open.¹⁶

This was an opportunity for the new War Staff to make its mark, and, at Churchill's insistence the job of formulating a new war plan was given to a committee led by Troubridge.¹⁷ In place of a close blockade, Troubridge developed the idea of maintaining something structured like a close blockade, but at a further remove from the German coast. In a memo on the exercises that Churchill prepared for the Prime Minister, the system was described as "a long, more or less stationary 'Cordon' of armoured cruisers and destroyers maintained at sea of an indefinite period beyond the immediate striking distance of the enemy's flotillas" in the middle of the North Sea.¹⁸

Churchill found the plans ridiculous, as did Admiral Callaghan, and the former refused to make Troubridge's cordon Admiralty policy unless they passed muster under warlike conditions in the 1912 Summer Manoeuvres. Taking place in the North Sea, the exercises were carried out by two sides, "Blue" and "Red." The Blue side, representing Britain, controlled most of the British Isles, with the exception of the southern English coast, which belonged to the Red side. Red was given three possible objectives: landing a force on the Blue coast, attacking Atlantic trade with a force large enough to resist everything but a battleship fleet, and attacking Atlantic trade while diverting Blue's battleship fleet

¹⁶ Admiralty to Adm. Callaghan, April 9, 1912, ADM 116/3096, Kew.

¹⁷ Lambert, *Sir John Fisher's Naval Revolution*, 262-3.

¹⁸ "Notes on the Manoeuvres: Prepared for the Prime Minister by the First Lord," October 17, 1912, ADM 116/3381, Kew.

somewhere else. The Blue side, as the Home Fleet analogue, started the exercise with destroyers and cruisers in a “cordon” across the North Sea.¹⁹

During the exercises, the cordon system performed miserably, and the plans were quickly removed, along with the unfortunate Troubridge.²⁰ Admiral May, the Umpire-in-Chief, noted that the cordon spread armored cruisers (including battlecruisers) far too thinly for them to concentrate when necessary. Instead, he suggested placing a line of “ships of small fighting value but high speed,” 40-60 miles in front of concentrated armored cruiser squadrons, which would allow the larger cruisers to shadow an enemy fleet breaking through the patrol line or destroy isolated raiders.²¹ Churchill’s summary for the PM went a step further, calling the cordon system “a serious misuse of various classes of vessels with great resulting waste of war power.”²²

The 1912 Manoeuvres were the first to give an accurate picture of battlecruiser employment. As May noted in his final report, the 1912 exercises were the first where ships were “taken at their proper fighting value,” rather than “standardized in classes to which they do not really belong,” an especially important distinction for battlecruisers, which had previously been treated as standard armored cruisers in exercises.²³ At these exercises, both

¹⁹ Admiralty, “Naval Manoeuvres 1912,” June 1912, ADM 116/1176B, Kew.

²⁰ Lambert, *Revolution*, 264.

²¹ Admiral May, “Naval Manoeuvres—1912: Remarks by Umpire in Chief,” August 5, 1912, MAY/10, Caird Library.

²² “Notes on the Manoeuvres,” 2-3.

²³ May, “Naval Manoeuvres 1912: Miscellaneous Notes by Umpire in Chief,” [August] 1912, MAY/10.

sides were equipped with battlecruisers: *Indefatigable*, *Lion*, and *Indomitable* with the Blue fleet, *Invincible* and *Inflexible* with Red.²⁴

In keeping with Troubridge's system, the Blue battlecruisers were spread out along the cordon, rather than with the Blue battle fleet, although they did converge onto the clash of the Red and Blue battle fleets. In that situation, the Blue battlecruisers skirted the edge of the action, steering away from the Red battleships, but not before the Red fleet commander claimed kills on *Indefatigable* and *Lion*. May granted the claim on *Indefatigable*, but argued that *Lion* did not spend enough time within 9,000 yards of the Red fleet (the maximum distance allowed for "fire" during the maneuvers), to count as out of action.

With hindsight it is easy enough to point out that in the 1916 battle at Jutland, the British and German battlecruisers opened fire at over 18,000 yards and that *Indefatigable* and *Queen Mary* were destroyed at those ranges and *Lion* nearly so.²⁵ Even before the war, though, it was clear that combat could take place well over 9,000 yards. Jellicoe's "War Orders" memo, for example, called on armored cruisers, battlecruisers, and battleships to open fire at 15,000 yards, and to avoid closing within 7,000 for fear of torpedoes.²⁶ While a certain level of unreality is to be expected from exercises, these overly conservative game rules suggest that the Royal Navy's leadership held dangerous assumptions about the survivability of battlecruisers in action.

The Red battlecruisers *Invincible* and *Inflexible* spent much of the exercise period chasing commerce, but transited the Blue picket line with the Red battle fleet. May's after-

²⁴ "Naval Manoeuvres 1912," 3.

²⁵ Beatty's Report from *Battle of Jutland: Official Despatches* (London: HMSO, 1920), 131-4.

²⁶ Jellicoe, "War Orders," 24.

action analysis suggested that the Red commander might have kept his cruisers too close at hand; one Blue picket, HMS *Shannon*, survived long enough to report the presence of Red battleships. Curiously, May felt that the presence of the Red battle fleet could be inferred by the presence of their battlecruisers, an odd sentiment hinting at some of the difficulties inherent in employing such expensive ships.²⁷

As early opponents of battlecruisers warned, commanders would feel tempted to keep such powerful ships with the battle line, rather than risking the possibility of their being out of reach when battle came. At the time, Corbett and other defenders had claimed that wireless would enable battlecruisers to stay in touch with their fleet commanders, and the Blue side in the 1912 exercises demonstrated the practicality of this. Still, while the Blue battlecruisers were present for the exercise's main battle, their role was minimal and even under the game's overly conservative rules one was destroyed and another nearly so. The Red battlecruisers seemed successful enough as commerce-raiders—or at any rate, neither May nor the summary for the Prime Minister mentioned the Red battlecruisers' raiding as an area for improvement—but *guerre de course* was hardly a mission that justified their great expense or firepower. As far as battlecruisers were concerned, the 1912 Manoeuvres demonstrated that the Royal Navy still had no idea how to use them.

Jon Tetsuro Sumida has suggested that by the end of 1912 Jellicoe had repudiated his earlier embrace of long-range battle in favor of a “technical-tactical synthesis” characterized by rapid fire at medium ranges, joined by Churchill and Battenberg, the new First Sea Lord, both in search of a replacement for the failed cordon system.²⁸ They hoped that this new

²⁷ May, “Remarks by Umpire-in-Chief,” 16.

²⁸ Sumida, “A Matter of Timing: The Royal Navy and the Tactics of Decisive Battle, 1912-1916,” *Journal of Military History*, Vol. 67, No. 1 (January 2003), 104.

tactical doctrine would counter the threat of German torpedoes. Although the new tactics would bring the British battle line closer to their German counterparts, the British were confident that their gunnery procedures would enable them to destroy the German line in 5-8 minutes, giving them time to turn away before a German salvo of torpedoes could strike home. Indeed, Sumida argued that the “R” class battleships were designed with these tactics in mind.²⁹ This sort of short-range engagement, however brief, represented a tremendously dangerous strategy for the lightly armored British battlecruiser fleet, yet there is no indication that anyone considered the role of battlecruisers in this schema.

Across the Atlantic, by 1912 the U.S. Navy had already reached a tenuous consensus on what battlecruisers were and what their mission was, but intense discussion continued over how much importance to place on that mission and on those ships. The USN was operating under what it considered strained financial conditions, and the main question concerning battlecruisers remained: could the Navy justify building a battlecruiser or battlecruiser squadron at the expense of an equal number of battleships? This question and its possible answers remained at the heart of the American debate through the beginning of the First World War.

At Newport, the officers in the Long Course continued their work on war with Germany, culminating in a report written up for the 1912 Conference and edited by C.T.

²⁹ Sumida, “A Matter of Timing,” 92-102. Sumida’s argument is based on rather circumstantial, though compelling, evidence. However, it would be somewhat of a stretch to follow Sumida in declaring this new idea Admiralty policy. The most that can be said is that it was an unusually influential understanding of tactics held by three very important members of the naval establishment.

Vogelsang and F.H. Schofield, two of the instructors at the War College. In the Long Course's war games, focused on Germany, German battlecruisers had proved difficult for commanders playing the Americans to handle, as noted by Sims, clearly the outstanding student in that first course, and confirmed by the college's President in his late 1911 letter to the Secretary, which passed along one of Sims's reports. At the end of the course, Sims's opinions remained unchanged; writing sometime in mid-to-late 1912 he noted that in the event of war it would be child's play for a German commander to blind his American counterpart. That would allow the German fleet train to cross the Atlantic unmolested, thanks to the German edge in scouting vessels—a category that, to Sims, included battlecruisers.³⁰

The Long Course's full report, however, was more hesitant. In theory, their contribution to the 1912 Summer Conference was a discussion of German battlecruisers being used to screen the American fleet, but the bulk of the report was taken up by a more general discussion of battlecruisers and their possible use to the American Navy. Although the report affirmed the widespread view that their main value lay in "distant and detached duty," the authors were unsure if they could fulfil that role in the American Navy. Even if the Navy began constructing battlecruisers, the report noted that their utility would be minimal, considering that both Germany and Japan would have an overwhelming superiority in the type due to their head start.³¹ In the absence of battlecruiser superiority or parity, the authors found that the initial American battlecruisers would be confined to a role in and around the battle fleet, where they would be ill suited to service in the line and. If used as a fast wing,

³⁰ Sims, undated report [1912], Sims Papers.

³¹ Interestingly, both the German and Japanese navies chose to pursue doctrines that would have kept their battlecruisers as a fast wing to the battleship fleet.

their ideal employment would require “considerable delay in beginning a battle,” as they maneuvered into position.³²

Despite the Long Course’s failure to arrive definitive conclusion (hindered greatly by Schofield’s continued advocacy for his torpedo battleship within the document), the report did suggest increasing the speed of battleships as a possible counter to German and Japanese battlecruisers.³³ Although a fast battleship would not be used for the detached operations niche by the battle line-minded U.S. Navy, as the Long Course solution pointed out, it was unlikely that the first few American battlecruisers would be either. The fast battleship suggestion would allow the U.S.N. to maintain their traditional battleship-focused building while further minimizing the possibility of foreign battlecruisers running circles around the American battle fleet. Assuming, for the moment, that the battle fleet strategy was an effective one, the Course’s reasoning was solid, showing a preference for strategic vision over tactical details.

A dispatch from an attaché in London, Captain Edward Simpson, confirmed that this was still a possibility. Simpson had the thankless task of trying to understand British battlecruiser policy in the wake of the *Queen Elizabeths* and to interpret it for American consumption. Based on press clippings, Churchill’s speeches before Parliament, and an interview with well-known Fisher critic Admiral Custance, Simpson came to the accurate at the time conclusion that British battlecruisers were to be used “as a fast wing of the battle fleet,” though he freely conceded that opinions, even within the Royal Navy, differed greatly.

³² 1911-12 Long Course, Vogelsang, and Schofield, “Problem 5. Discussion and Solution,” Summer Conference 1912, Volume II, RG 12, NHC, 209-12.

³³ “Problem 5,” 213. Schofield’s persistence in advocating for torpedo battleships never led to the construction of purpose-built torpedo battleships in the United States, but there is strong evidence to suggest that his designs played a role in the General Board’s desire for heavy torpedo armament in battleships from about 1911 (Friedman, *U.S. Battleships*, 144-6).

Oddly enough, the material available to Simpson gave him the impression that “the technical advisors of the First Lord evidently favor these vessels,” which, as we have seen, was certainly not the case.³⁴ Still, Simpson’s report, which probably would have been available to the Summer Conference class, highlights the gaps between American and British understandings of battlecruisers. As the Conference and the General Board would show over the rest of 1912, the American vision for using the battlecruiser type was shifting away from pitched battle.

In mid-July, Constructor R.H. Robinson kicked off the summer’s battlecruiser discussion with a speech to the Conference on battlecruiser design, focusing on the issue of speed, where the gap between battleships and battlecruisers had steadily risen. The speed of modern battleships remained at 21 knots, but newer German and British battlecruisers could achieve between 6.5 and 10 knots greater speed; enough to be a tactical menace to battleships even with their firepower and armor restrictions. While he saw the development of an American battlecruiser force as the ideal solution to the problem, he dismissed that possibility as impractical given Congress’s typical funding.³⁵ In its stead, Robinson proposed increasing the speed of future American battleships, much like the *Queen Elizabeths*, although Robinson conceded that such ships would be “too large at least for present financial conceptions, if not for the technical imagination.”³⁶

³⁴ Captain Edward Simpson to Captain W.L. Rodgers, “British Battle Cruisers – The Tactical Field of,” May 22, 1912, Folder 5, Box 113, RG 4, NHC.

³⁵ Naval Constructor R.H. Robinson, “Battle Cruisers,” NWC Lecture, July 12, 1912, Folder 5, Box 113, RG 4, NHC.

³⁶ Robinson, “Discussion of the Use of Armored Cruisers in Action,” September 1, 1912, Folder 5, Box 113, RG 4, NHC. The same report can also be found in Volume III of the 1912 Summer Conference records in RG 12.

Although Robinson found the prospect of American battlecruisers remote, he had been Construction and Repair's lead designer on the General Board's 1911 request for a battlecruiser design. By the summer of 1912, he had expanded the Board's original request into a number of studies which juggled the variables of speed (26, 29, and 32 knots), range (five, seven, and eight thousand miles, although the eventual sketch designs had much greater range), and armor (main belts of 8, 11, and 14 inches) with a set main battery of eight 14" guns. Unlike the Board's original request, which would have created a lightly-armored ship, Robinson's conception of a battlecruiser was more in line with the "fast battleship" school of thought; he regarded the 8" armor designs as a bare minimum, and he expressed a clear preference for the more heavily-armored ships, although as we will see, his conception of their mission was far more modest. The designs, however, proved somewhat problematic. Had they been built, constructors would have dealt with unprecedented issues of drivetrain and hull length.³⁷

Robinson expanded on that talk in his answer to the Conference's annual battlecruiser question. Although he finally concluded that battlecruisers were "a luxury that cannot be afforded," his journey to that response undermined the substance of his conclusion. Quoting Sims's 1911 Conference report at length, Robinson argued that battlecruisers were perfectly suited for scouting and screening, while adding suggestions that battlecruisers could also be used for "the early occupation of a base . . . near our lines or the relief of a threatened base."³⁸ Tactically, Robinson was less certain, noting that the side with a battlecruiser fast wing only tended to win game board exercises when also superior in battleships, although he

³⁷ Norman Friedman, *U.S. Cruisers: An Illustrated Design History* (Annapolis, MD: Naval Institute Press, 1984), 62-3.

³⁸ Robinson, "Discussion of the use of Armored Cruisers," 16.

was quite taken with the idea of using battlecruisers for torpedo attacks.³⁹ Overall, then, Robinson found battlecruisers invaluable for scouting, screening, and other “distantial” operations while acknowledging some potential utility in battle. Ideally, they would be part of the U.S. fleet, but they were of secondary importance next to battleships.

Captain C.M. Knepper, the other respondent on the battlecruiser question, came to much the same conclusion as Robinson, though because he did not deal with financial considerations his conclusion appeared to be more favorable. His report was far more notable for his attempt to analyze the evolution of the type. As he put it, “[t]he *Invincible* is a highly developed armored cruiser. The *Lion* is nothing but a fast battleship with decreased protection and armament.”⁴⁰ Although Knepper did not show his reasoning, one imagines that the shift in nomenclature had something to do with the larger guns of the *Lion* (though, of course, when *Invincible* was built, her long-range firepower was greater than most contemporary battleships). As we have seen, in the U.S. Navy of the day, a “fast battleship” was far more desirable than a “highly developed armored cruiser,” even if the British intended to use both ships for the same missions. Knepper’s report is another example of the growing American fascination with the second generation of larger, faster, battlecruisers.

The generally pro-battlecruiser tenor of the Conference (neither Knepper’s nor Robinson’s reports sparked any contentious discussion in the Conference’s full deliberations), highlighted the shift in the American battlecruiser debate and the widening gap between how American and British officers understood battlecruisers and their mission.⁴¹

³⁹ Robinson, “Discussion of the use of Armored Cruisers,” 21-3.

⁴⁰ Captain C.M. Knepper, “Discussion of the use of Armored Cruisers in Action,” August 16, 1912, Folder 5, Box 113, RG 4, NHC, 1.

⁴¹ Commander N.A. McCully, “Report of Conference Discussion - Tactical Question 2,” September 21, 1912, 1912 Summer Conference, Volume III, NHC.

This was echoed by the new War College President, W.L. Rodgers, who had been one of the primary advocates for the 1904 Conference's proto-battlecruiser. Towards the end of the Summer Conference, in mid-August, Rodgers had written a short note to Secretary Meyer highlighting the importance of speed in the battle fleet. That attribute could "guarantee a certain degree of strategic freedom," in the face of a superior enemy fleet, a clear allusion to the situation faced by the United States in the event of a war with Germany.⁴² Rodgers's suggestion, though, was not necessarily an endorsement of battlecruisers, merely a plea for a faster battle fleet, although in the past Rodgers's advocacy for speed had taken the form of a ship that Americans tended to classify as a type of battlecruiser.

However, Rodgers's opinion was not the only one in the War College. In early August Commander William Veazie Pratt, an instructor at Newport, gave Rodgers a memo, "Speed of Battleships," that took aim at the notion of increasing the speed of capital ships. The memo could perhaps pass without comment, but Pratt was on the cusp of a glittering career in naval administration, which would see him wield considerable influence on naval policy over the next twenty years. When William S. Benson was appointed Chief of Naval Operations in 1915, Pratt was made his top assistant and head of the planning section, a position from which he directed naval policy and provided a great deal of guidance to his nominal superior, solid in his role, but no policy intellectual. From there, Pratt became a member of the General Board, and a key advisor to the American delegation at the Washington Conference, before ending his career as Chief of Naval Operations. It is also

⁴² Captain W.L. Rodgers, Letter to Secretary Meyer, August 13, 1912, RG 80, E 281, File 420-6, NARA Washington.

worth noting that while Pratt was a Naval War College instructor, he had never attended as a student.⁴³

Pratt was also implacably hostile to battlecruisers, which was on full display in this particular memorandum, which argued that it was “clearly in the wrong to attempt to gain fighting efficiency in . . . the battleship line, by an increase . . . of a few knots speed if that means sacrifice of guns, armor.” He went on to claim that ships designed for combat at high speeds, “should evolve from the destroyer up, not the battleship down,” a clear dig at battlecruisers. In practice, this would mean high speed and good protection combined with a minimal main battery; a ship somewhat along the lines of the Schofield torpedo battleship. All of these qualities were, Pratt assured Rodgers, “not entirely conjecture, but . . . based on results obtained from problems worked out on the maneuver board.”⁴⁴ Left unsaid was the fact that much of the data fed into maneuver board problems also rested on conjecture.

Despite Rodgers and Pratt, the General Board requested battlecruisers in their 1912 construction letter. Furthermore, the Board eschewed their typical yearly suggestions in favor of a 5-year building program, echoing the long-term building plans in Japan and Germany. Altogether, the Board called for the construction of 8 battlecruisers and 21 battleships to commence between 1913 and 1917, creating an end strength of 8 battlecruisers and 32 battleships by the end of 1920. After that, the General Board projected an additional 4 battlecruiser, 16 battleship plan, a tacit admission that the 48-battleship standard could not be met by the original 1920 date. For the 1913 bill, the Board proposed two battlecruisers to go

⁴³ For more on Pratt’s background, see Craig L. Symonds’s chapter on Pratt in *The Chiefs of Naval Operations*, ed. Robert William Love, Jr. (Annapolis: Naval Institute Press, 1980), 69-88.

⁴⁴ Commander William Veazie Pratt, “Speed of Battleships,” August 2, 1912, Folder 2, Box 113, RG 8, NHC.

along with four battleships, albeit with the proviso that battlecruiser construction should only take place if all four battleships were constructed.⁴⁵

As usual, the Board was at the 1912 Summer Conference, and their time at Newport seems to have affected their requests. Though the Board did not adopt Knepper's definitional hair-splitting between battlecruisers derived from cruisers and those developed from battleships, their argument was somewhat similar to Robinson's focus on "distantial" operations. As the Board put it, "we must have [battlecruisers] to hope for successful conflict. . . . These vessels have a military value not possible to obtain from other types or combination of types," although they never specified what that particular value was. The proposed fleet organization attached to the building request, though, suggested that their role was to be those detached operations discussed at the conference. While the battleships were grouped into divisions of eight, no higher organization was suggested for the proposed battlecruiser force, suggesting that they would not be deployed en masse.⁴⁶

There is some evidence to suggest that the Board's newfound appreciation for battlecruisers was influenced by the 1912 Conference. A preliminary attempt at developing a construction program by a Board subcommittee in mid-July simply reprinted the "problematical" language used in the 1910 construction memo.⁴⁷ The records of the General Board are rather incomplete before the First World War, but the Summer Conference is the only major event to take place between July and September 1912. A second straight Summer

⁴⁵ General Board, "Memorandum from General Board. Building Program, 1913-1917," September 25, 1912, RG 80, E281, File 420-2, NARA Washington.

⁴⁶ General Board, "Building Program, 1913-1917."

⁴⁷ "Memorandum, Third Committee, General Board. Building Program for the Period 1914-1920," July 17, 1912, RG 80, E281, File 420-2, NARA Washington.

Conference that favored the battlecruiser type may have boosted the ships in the eyes of the Board.

Secretary Meyer passed on the Board's recommendation for the 1913 bill, but left them out of the Navy Department budget submitted to Congress, which merely called for three battleships and twelve destroyers. Economy almost certainly played a role—in front of the House Naval Committee, Meyer estimated that a battlecruiser would cost almost 40% more to construct than a similar battleship—as did the Board's clear preference for battleship construction to take precedence.⁴⁸ For both Meyer and Congress, however, battlecruisers were an afterthought, and apart from Meyer's short discussion of costs, they were entirely absent from Congress's deliberations over the 1913 bill.

Although the General Board must have been well aware that their proposed battlecruisers would never see the light of day, preliminary design work continued into late 1912, even after Meyer had stripped the battlecruisers from the Navy Department's 1913-14 budget recommendation. Unsurprisingly, Robinson's studies from the Conference were used as the base for C&R's preliminary design, which has been lost. However, the General Board's initial requests were for a modification of Robinson's 29-knot, 11" armor combination, which had an estimated range of nearly 10,000 nautical miles; enough for service in the Pacific.⁴⁹

Towards the end of 1912, this preliminary design was sent for comment to the Naval War College, receiving comments from both Pratt and Rodgers. Surprisingly, the two men who had clashed on the issue of speed found themselves in agreement on the unsuitability of

⁴⁸ "Statement of Hon. George von L. Meyer, Secretary of the Navy," January 11, 13, 1913, House Committee on Naval Affairs Serial No. 12, 652.

⁴⁹ Friedman, *U.S. Cruisers*, 63-4.

the design, and battlecruisers in general for the United States at the time. Rodgers claimed that battlecruisers were a “naval luxury,” marked for “secondary strategic objectives.” Unlike battleships, they were unable to “lend the utmost tactical support to the main body in general action,” and thus had no place in a U.S. Navy constrained by a miserly Congress.⁵⁰

Pratt’s attack on battlecruisers was more wide-ranging, taking aim at the value of speed, and determining from board exercises that neither a war with Japan or Germany would be materially affected by American battlecruisers. More importantly, Pratt showed himself to be one of the very few American officers who understood Fisher’s original battlecruiser rationale and its subsequent modification:

England built battle cruisers and this is the order of her thought: (a) Battle cruisers built for strategical reasons. (b) Found that strategical reason was not enough to justify building such ships. (c) Proceeded to find tactical use for such ship. (d) Having found it, proceeded to develop its employment with battleships. (e) In 1912 dropped the battle cruisers from program.”

One can certainly quibble with the suggestion that the British had indeed found a tactical niche for their battlecruisers, but overall Pratt’s breakdown of British policy was a sound account.

Pratt’s warning that the United States risked following the British path is harder to defend. The U.S. Navy had taken the opposite path from the British: first considering the battlecruiser tactically before settling on “strategical reasons” for their construction, and all without the sunk costs of ships ill suited for prevailing naval policy. Despite the seeming logic of Pratt’s dismissal, it was Rodgers’s argument that really reflected the tacit shift in the American battlecruiser debate. Rodgers rejected the ships not simply because their

⁵⁰ Rodgers, “Notes Upon the Memorandum of the Third Committee [of the General Board] Regarding Characteristics of Battle Cruisers of 1914 Programme,” January 2, 1913, RG 80, E 281, File 420-6, NARA Washington.

performance in battle would be poor (though he did make that argument). Instead, he rejected battlecruisers because they were intended for those “strategic” missions of scouting, screening, and the like, that would keep them away from the battle fleet entirely, and it was the battle fleet that remained at the center of American strategic thinking. All other missions remained secondary. Despite the shift in thinking about battlecruisers, Rodgers and most of the American officer corps believed that fighting and winning major battles would provide enough strategic benefits to offset the urgent need for battlecruisers, though having them would certainly be a positive.

This shift towards considering battlecruisers as vessels intended for “strategical” work would have dramatic implications down the road. Two successive Summer Conferences, the 1911-12 Long Course, and the General Board all agreed that battlecruisers were perfectly suited for their proposed subordinate mission, a far cry from the contentiousness over the fast wing role. With the conceptual hurdles cleared, the only barriers to battlecruiser construction in the United States were now financial. Even with the avowedly Mahanian ethos of the American officer corps, a critical mass of officers in key positions believed that battlecruiser construction would be a net positive for the U.S. Navy, if the money could be found to build them alongside a robust battleship program.

The financial barriers rose substantially with the inauguration of Woodrow Wilson in March 1913. Neither Wilson nor his naval secretary, Josephus Daniels, were terribly interested in the Navy and certainly not interested in the sort of naval program large enough for the Navy to feel comfortable with the addition of battlecruisers. Still, the General Board did not lower its sights. In 1913, the Board gave Secretary Daniels a request for four battleships, sixteen destroyers, and eight submarines, pursuant to the five-year program the

Board put forward the year before. Indeed, the memorandum to Daniels laying out the proposed plan lauded the five-year program as “necessary to insure a fleet in 1920 of measurable equality with the fleets of the principal foreign powers.” In other words, the General Board did not give up its earlier support for battlecruisers, but shifted it further down the five-year plan in favor of battleships, the favored capital ship.⁵¹

As for battlecruisers specifically, 1913 was a year of stasis in the U.S. Navy. The General Board declined to request them, while continuing to regard them as a part of a well-balanced fleet, and battlecruisers were again conditionally endorsed by the Summer Conference.⁵² The prevailing position was admirably summed up by Captain James Oliver, a member of the Newport clique, who wrote that battlecruisers were “absolutely unrivalled in performance of the special service of ‘security and information,’” but there was no consensus on “how we value this special type in comparison with types about which we have no doubt. . . . It is very doubtful if for our navy any of us would exchange a DELAWARE for an INVINCIBLE.”⁵³

The one thing that was determined was that the United States would not follow Britain in building “fast battleships” on the *Queen Elizabeth* model. The idea was not a new one in the United States—it could be said to date to Fiske’s “Compromiseless Ships” article in 1905—and enthusiasm for it seemed to pick up in 1912 as it became clear to many officers who wanted battlecruisers that the money for them and battleships would not be forthcoming. Robinson, for example, suggested speedy battleships as a possible stopgap in his July 1912

⁵¹ General Board to Daniels, “Proposed construction, 1915,” late 1913, in *Annual Reports of the Navy Department for the Fiscal Year 1913* (Washington, D.C.: Government Printing Office, 1914), 29.

⁵² Commander C.B. Morgan, “Tactical Question II: Discuss the use of Battle Cruisers, Armored Cruisers, and Scouts,” September 11, 1913, Folder 5, Box 113, RG 8, NHC.

⁵³ Captain James Oliver, “Our Fleet,” 1913, Folder 6, Box 51, RG 8, NHC.

Newport talk. Rodgers took up the mantle in the General Board's deliberations over the specifications of the 1915 program battleships in late 1913. Arguing that a fleet with no capital ships faster than 21 knots was vulnerable to being brought to battle under unfavorable terms by opponents with battlecruisers and fast battleships, Rodgers urged the board to increase the design's speed above 21 knots. Rodgers was overruled.⁵⁴ Indeed, the next year the Board actually lowered the speed requirements for the 1916 program battleships to 20.5 knots.⁵⁵

By the start of the First World War, the U.S. Navy had reached an internal consensus on what battlecruisers were for. *If* the United States were to build battlecruisers, they would be on the British model of high speed, high firepower, and low armor, and they would be employed in what American officers referred to as the "strategic" roles of scouting, screening, and long-range independent maneuver (although it might have been more accurate to refer to such roles as "auxiliary" rather than "strategic"). While there was some disagreement on precisely how valuable those roles were, there was near-total agreement that they could only be built if suitable progress was made in the battleship construction program.

There were, however, some suggestions that the United States could forgo battlecruisers altogether. Pratt, of course, was loudly opposed to the ships, but the real push came from officers otherwise well disposed towards battlecruisers who thought that something like the *Queen Elizabeths* could be the future of naval warfare. There was a great deal of fascination with the new British battleships. One member of the 1914 Long Course

⁵⁴ General Board Meeting, November 25, 1913, *Proceedings and Hearings of the General Board of the United States Navy, 1900-1950*, Volume 5, Roll 3 (Washington, D.C.: National Archives Microfilm Publications, 1987), 226.

⁵⁵ General Board Meeting, May 22, 1914, *Proceedings and Hearings of the General Board*, Volume 6, Roll 3 91.

class suggested that battlecruisers could “be merged into the battleship,” in the near future, obviating the need for specialized battlecruisers.⁵⁶ Such a ship would conform to the American focus on battleships, and both Constructor Robinson and NWC President Rodgers had suggested the “fast battleship” as a way to add speed to the American fleet without sacrificing battleship construction.

These arguments suggest something of the hold that the major fleet action held over the minds of the U.S. Navy. The suggestion of building fast battleships did nothing to solve the scouting issues; there was not a chance that an American fleet commander would allow his newest and most capable battleships to range away from the rest of the formation. Based on the internal arguments used to promote battlecruisers, they should have been a higher priority than battleships. On the eve of war, the U.S. Navy possessed the third-largest battleship fleet in the world, no battlecruisers, and only three purpose-built scouts. Even after two years of concern over foreign battlecruisers, and the scouting situation, the General Board could still not bring itself to prioritize battlecruiser construction.⁵⁷

As the Royal Navy entered 1913, its battlecruiser program was in the process of shutting down, as work continued on the last two ships, *Queen Mary* and *Tiger*. However, those ten ships still played an important role in war planning and training. By early 1913, when

⁵⁶ Commander G.W. Laws, “Tactical Question II,” April 1914, Folder 5, Box 113, RG 8, NHC.

⁵⁷ Of course, this also highlights the extent to which the “distantial” portfolio for battlecruisers was believed by the General Board. Their refusal to suggest battlecruisers for a fast wing role (that is, a battleship-like role in major engagements) shows again that the General Board had definitely repudiated the idea of building battlecruisers for the thick of battle.

Winston Churchill's former naval secretary, Rear Admiral David Beatty, took control of the First Battle Cruiser Squadron in the North Sea, it comprised five ships: *Invincible*, *Indomitable*, *Indefatigable*, *Lion*, and *Princess Royal*. Beatty was not shy about expressing his opinions about how his squadron should be used, producing a series of documents highlighting the foginess at the heart of British battlecruiser practice.

A month after assuming command, Beatty presented his squadron with a memo, "Functions of a Battle Cruiser Squadron," that laid out his thinking concerning his new command, and enumerated its possible duties in war. He listed five potential roles, four of which involved supporting friendly cruisers conducting reconnaissance or blockade. This fifth and seemingly crucial role, however, was to form the fast division of a battle fleet.⁵⁸ In this memo and elsewhere, Beatty exuded confidence in his squadron's ability to play such a role: "the power of the ship is to be gauged by her offensive rather than her defensive, and the best defensive is an overpowering offensive." Beatty seemed unworried about his thin-skinned warships going up against the German battle fleet.⁵⁹

Beatty took these attitudes into the 1913 exercises, the last before the First World War (in 1914 the exercises would be shelved in favor of a cheaper test deployment). In them, the Blue forces, representing the U.K. would square off against a Red force meant to simulate the High Seas Fleet, and a smaller squadron representing an Austrian force attempting to rendezvous with the Germans. After grumbling over the prior year's results, based on the absence of physical transports, the scenario was essentially unchanged.⁶⁰ The Red Fleet was

⁵⁸ Beatty, "Functions of a Battle Cruiser Squadron," April 5, 1913, BTY/2/4/3, NMM, 1-2.

⁵⁹ Beatty, "Functions," 3.

⁶⁰ Marder, *Road to War*, 353.

again tasked with attempting to break commerce-raiders out of the North Sea, and land to an invasion or raiding force somewhere in the British Isles. Callaghan, of course, commanded the Blue side, while the Red fleet was commanded by Vice-Admiral Jellicoe, granted a temporary reprieve from his duties as Second Sea Lord to take part in the exercises.⁶¹ Each side had battlecruisers; *Lion*, *Princess Royal*, and *Indefatigable* on the Blue side, under the command of Beatty, while the Red Fleet received *Indomitable* and *Invincible*.⁶²

Jellicoe's Red Fleet ended the main portion of the exercises victorious, having managed to land an "invasion force" in the Humber estuary, despite a spirited attempt by the 1st BCS to shadow their approach, even in the face of what Beatty considered "cheating" on the part of Jellicoe.⁶³ One midshipman aboard *Indomitable* noted that the Red Fleet's battlecruisers were used as a fast wing during a "battle" on August 1, "crossing their T 3 times" in about half an hour's fighting.⁶⁴

Unsurprisingly, battlecruisers loomed large in Jellicoe's post-exercise report. In that report, the first conclusion was that battlecruisers "dominate the situation absolutely. . . . A Commander-in-Chief . . . cannot feel safe until they are disposed of." He then went on to laud "[t]he power possessed by a compact battle squadron of superior speed to that of the enemy's fastest battleships," a force that could, with support from battlecruisers and destroyers, make short work of enemy cruiser patrols."⁶⁵ Clearly then, Jellicoe was more

⁶¹ "Proposed General Scheme for the 1913 Manoeuvres," [early 1913], ADM 116/1214, TNA.

⁶² Admiralty, "Naval Manoeuvres, 1913," June 1913, ADM 116/1169, TNA, 3.

⁶³ David Beatty to Ethel Beatty, July 27, 1913, *Beatty Papers*, 75.

⁶⁴ B.B. Schofield, midshipman's journal entry for August 1, 1913, BBS1, Vice-Admiral B.B. Schofield Papers, Imperial War Museum, London.

⁶⁵ Jellicoe, "Naval Manoeuvres, 1913: Report by Vice-Admiral Sir J.R. Jellicoe, K.C.B., K.C.V.O., Commander-in-Chief, Red Fleet," September 1913, ADM 116/3381, TNA, 4.

sanguine concerning the utility of battlecruisers than the Admiralty and, indeed, perhaps more so than Beatty, who had written in his April memo that their primary missions were support functions.⁶⁶

However, a closer look at the exercises suggests that battlecruisers were not as effective as Jellicoe's effusive praise would suggest. In the first session of the exercises, Beatty was able to find the Red Fleet and launch a spoiling attack on its lead squadron, but that attack was unsuccessful, as was a subsequent chase by the Blue battle squadrons. In the second session, the Blue battlecruisers again found the Red battle fleet, but this time (it is unclear whether this was on orders from Callaghan or on the initiative of Beatty) attacked. While the attack caused some damage to Red, nothing was sunk except the three Blue battlecruisers, all within one hour and ten minutes of launching their attack.⁶⁷

What the 1913 exercises lacked, though, were any extended encounters between Red and Blue battlecruisers, the scenario that appears to have dominated Beatty's thinking in the year leading up to the First World War. Correspondence with Callaghan and the Admiralty show his vigorous criticism of any plan to reduce battlecruiser strength in the North Sea. While some of it was undoubtedly the understandable pique of a squadron commander losing assets under his control, his intensity and his later behavior suggest that this shift was heartfelt. Although it did not appear as one of the potential missions of the 1st BCS in Beatty's April 1913 memo for his squadron, negating German battlecruisers became an

⁶⁶ Beatty, "Functions," 7.

⁶⁷ May, "Naval Manoeuvres, 1913: Report by Umpire-in-Chief," August 1913, ADM 116/1169, 16-26. Somewhat later ("Addendum to Narrative of Naval Manoeuvres 1913," ADM 116/1176c, TNA), May suggested that damaged battlecruisers, reduced to half-speed under the exercise rules, should no longer be counted as battlecruisers; absent their speed, they were unable to fulfill their function. This bears a striking similarity to anti-battlecruiser arguments raised at Newport when battlecruisers were still being discussed as part of the battle line: a damaged battleship at partial speed remained a slow battleship, but a hindered battlecruiser could neither outshoot nor outrun opposing battleships.

increasingly important part of Beatty's self-conceived mission, perhaps because of the success Red battlecruisers had in coastal raids in the 1913 Manoeuvres.

Despite the seeming logic of using the 1st BCS against its opposite number, the notion flew in the face of British battlecruiser policy. Both Fisher's original conception of the battlecruiser, and its place in the British fleet rested on its asymmetric qualities.⁶⁸ In all the debates about the function of the battlecruisers from Fisher through the 1913 exercises, emphasis was placed on using battlecruisers as a fast wing against slower battleships or against weaker light and armored cruisers. Even the anti-battlecruiser Churchill Admiralty maintained this policy, sending battlecruisers to the Mediterranean facing the battlecruiser-free Italian and Austro-Hungarian navies. The *Queen Elizabeths*, built to replace battlecruisers, were intended to fill their fast wing functions with a bespoke ship. The possibility of German and British battlecruisers maneuvering against each other as they tried to establish fast wings had of course been anticipated, but not to this extent.

The extent to which the British battlecruisers were ever intended to fight or even neutralize their opposite numbers is debatable. The first four battlecruisers were designed and built in a world with no foreign analogues, and, at least while Fisher remained in office, were intended for sea control purposes that would have found them matched against commerce-raiders, mostly cruisers and converted liners. After the introduction of *Von der Tann*, the exact purpose of the British vessels becomes more difficult to divine. *Lion* was obviously intended to outclass the German ship, but it is difficult to argue that she was intended specifically to seek her out in the event of war. Statements from senior Admiralty officials and the design of the *Queen Elizabeths* suggest that the primary missions of the British

⁶⁸ Of course, Fisher believed that battlecruisers would supersede battleships at some point

battlecruiser force remained scouting and the fast wing. Even the iconoclastic *Naval Review* carried articles supporting the fast wing mission for battlecruisers. Late in 1913, the *Review* carried the third part of a study of tactics by founding member Captain Edward W. Harding, RMA, a gunnery expert. In that piece, Harding argued that battlecruisers were a key part of “the battle squadron,” especially for work as a fast division.⁶⁹

Beatty’s contribution towards the discussion was to attempt to shift the mission of the 1st BCS more narrowly onto countering the German battlecruisers, though Beatty and flag captain Ernle Chatfield continued to work on the fast wing issue.⁷⁰ Several weeks after the 1913 Manoeuvres, Beatty wrote a memo for Callaghan, decrying the possible shift of *Indefatigable* from the North Sea to the Mediterranean, a shift that eventually occurred in December. In that letter, Beatty pointed out that detaching *Indefatigable* would create parity between the German and British battlecruisers in the North Sea, at four each.⁷¹ In fact, Beatty felt the current five to four margin was “insufficient,” as the Germans could easily recall *Goeben* from the Mediterranean. The prospect of “bare equality” without *Indefatigable* was too horrible to contemplate. This was all complicated by both countries’ construction schedules, which would allow the German squadron to add its newest member, *Derfflinger* some months before HMS *Tiger* was commissioned.⁷² The letter was sent to the Admiralty by Callaghan with his “full agreement,” although that was obviously insufficient to sway the

⁶⁹ Captain Edward W. Harding, RMA, “Studies in the Theory of Naval Tactics III,” *Naval Review*, November 1913, 365-75. Harding also believed that the battle line tactics of the Royal Navy were too unwieldy, and called for the main battle fleet to adopt an “attack by divisions,” which would, he claimed, make the fleet better able to force and win a decisive action.

⁷⁰ Captain Ernle Chatfield, “Fast Division Work From a Gunnery Standpoint,” memo for Beatty, October 1913, BTY/2/4/6.

⁷¹ Beatty’s letter assumed, incorrectly, that SMS *Goeben*, stationed in the Mediterranean, was there for diplomatic reasons, and would be recalled to the North Sea in the event of war.

⁷² Beatty to Callaghan, September 8, 1913, ADM 1/8372/46, TNA.

Board, especially in light of the prior agreement over the Mediterranean reached at the CID in 1912.⁷³ Even after the Admiralty agreed to put *New Zealand* in the North Sea upon her return from a visit to its namesake, Beatty brought up the matter again in March 1914, with somewhat more urgency, given the imminent commissioning of *Derfflinger*.⁷⁴ Callaghan echoed his subordinate, in claiming that battlecruiser superiority in the North Sea was “essential” to British control.⁷⁵

Beatty’s constant worries over battlecruiser parity were almost certainly linked to a change in his conception of the 1st BCS’s role. In a memo to mark one year in command of the squadron he had tightened his language concerning the squadron’s missions, identifying only two, the “strategical” work of supporting cruiser patrols and the “tactical” work of the fast wing.⁷⁶ Despite that language, the document clearly pinpointed the German battlecruiser fleet as the main target of the squadron. Even in support of cruiser operations, Beatty wanted the ships of the squadron to remain in sight of each other at all times, concentrating its strength. He also wanted a permanent escort of light cruisers for the squadron, allowing it the freedom to operate as an independent tactical unit.⁷⁷

Beatty’s new focus belied his earlier statement that battlecruisers primarily served a support function. A battlecruiser squadron whose elements had to remain within sight of each other was not a squadron that could provide effective ordinary support to a diffuse scouting

⁷³ Callaghan to Admiralty, September 12, 1913, ADM 1/8372/46.

⁷⁴ Beatty to Callaghan, March 10, 1914, ADM 1/8372/46.

⁷⁵ Callaghan to Admiralty, March 25, 1914, ADM 1/8372/46.

⁷⁶ This language would also be used by officers in the U.S. Navy to describe the role of battlecruisers, though in that case, Americans tended to argue that only the “strategical” missions were fit for the ships.

⁷⁷ Beatty, “Battle Cruisers,” March 3, 1914, ADM 1/8372/46.

force. Indeed, the *only* security such a squadron could realistically provide would be against a concentration of large enemy ships. All of this assumes that the 1st BCS would even be in a position to support Home Fleet's cruisers. With an attached light cruiser squadron, the 1st BCS would have the capability for independent action much further afield from the battle fleet or scouting lines. The focus on German battlecruisers almost ensured that he would have the desire to do so.

In a way, Beatty's vision for his squadron was a deeply conservative one. Rather than seeing his primary mission as using his ships' unique capabilities to overwhelm smaller ships or run circles around larger ones, Beatty posited a role that pitted them against the most similar German vessels, something of a return to the type-against-type logic that ruled all naval warfare before the invention of the torpedo. As discussed earlier, the entire rationale for battlecruisers, with both Fisher and his successors was to utilize their advantages against lighter and/or slower ships. While other British officers certainly contemplated battlecruiser vs. battlecruiser action as a natural component of large-scale battle, Beatty was one of the few who appeared to encourage such an encounter independent of a fleet action. Subsequent authors have criticized similar strategies, because battlecruisers "could not even fight each other," but it would be fairer to say that Beatty's approach did not maximize the utility of his ships' capabilities.⁷⁸

⁷⁸ Archer Jones and Andrew J. Keogh, "The Dreadnought Revolution: Another Look," *Military Affairs*, Volume 49, No. 3 (July 1985), 129. This argument, prevalent in much of the literature written before or against Sumida and N. Lambert is superficially appealing, but difficult to defend on further reflection. Indeed, it is not entirely clear what sentiments the argument is intended to express. The combination of high firepower and low armor made battlecruiser on battlecruiser engagements, one imagines, rather hair-raising for their crews, but they fought each other on reasonably equal terms. While the German ships were certainly better suited for protection against heavy-caliber fire, the results of the battles of Jutland and, especially, Dogger Bank, argue in favor of the British and German battlecruiser formations being reasonable matches for each other.

Beatty's ideas were not just out of step with the original rationale for battlecruisers and the prevailing understanding of them as primarily a fast wing. As of mid-1914, they were at odds with Admiralty plans. In mid-July, the War Staff's Operations Division proposed to liquidate the battlecruiser squadrons and form "Mixed Cruiser Squadrons," a plan that seems to have had the approval of Churchill and Battenberg. The plan proposed the creation of four mixed cruiser squadrons, each composed of two battlecruisers and four light cruisers after Beatty's appointment ran out in 1915.⁷⁹ All four mixed squadrons would be attached to the Home Fleet. The text deals solely with organization and deployment, but the only possible advantages for such a reorganization would be in trade protection, as well as supporting scouting and screening; certainly not chasing German battlecruiser formations around the North Sea or forming a fast wing. Although eight out of ten British Empire battlecruisers would be in the North Sea, this planned disposition would strike a blow against the concentration and common training necessary to meet the German battlecruiser force in a pitched battle.⁸⁰

⁷⁹ That would represent the entire planned British battlecruiser strength—including the under-construction *Tiger*—less *Australia* for obvious reasons, and *New Zealand*, which would remain with SMS *Goeben* in the Mediterranean.

⁸⁰ Admiralty Operations Division, "Cruiser Squadron and Battle Squadron Programme," July 8, 1914, ADM/1/8383/179, TNA. Although the plan came too soon before the war to become official Admiralty policy, none of the notes, marginalia, or endorsements from Board members on the copy at Kew criticize the proposed reorganization of the battlecruisers, save for a suggestion that *Princess Royal* replace *Tiger* as a squadron flagship. Gordon (*Rules of the Game*, 14-15, and endnote, 624), calls this plan official Admiralty policy, to take effect after Beatty's term was up in 1915, and announced to senior officers, but he provides no source beyond the document cited here for the latter contention.

At the end of the 1912 Summer Conference, NWC President W.L. Rodgers laid out his vision of the Naval War College in a final lecture:

The work of the College . . . has two branches. Its business is to spread abroad in the service both the general doctrine and its individual character building; but further, it must push original work, and in conjunction with the fleet, it must develop its doctrine as circumstances require and keep abreast of the times. The War College therefore devotes itself to the investigation and deposition of strategic and tactical principles. . . . [T]he object is to develop a uniform method throughout the service[.]⁸¹

Many of the reasons for the difference the British and American approaches to battlecruiser policy in the years before World War I can be found in that quotation. In the United States, the “investigation and deposition of strategic and tactical principles” was the province of the Naval War College, students, staff, and General Board members collectively during the summer conferences, and individually as instructors conducted board exercises and thought about war in the offseason. In a sense, this status was by default; the General Board could have fulfilled that role, but they had neither the staff nor the remit for such work. The Atlantic Fleet served as a means of testing War College doctrines and operational ideas, but lacked the staff and the time to generate such ideas itself.

In Britain, on the other hand, the U.S. Navy’s conception of “doctrine” was mostly foreign, at least in the sense of service-wide principles. Instead, as one officer put it, there was a “doctrine of no doctrine.”⁸² Much of this was certainly down to the British policy of giving fleet commanders wide latitude, but even when the Admiralty tried to develop a policy for the North Sea through the Naval Staff, it ended in near disaster. There was a bewildering array of officials and entities that could claim input into British naval policy,

⁸¹ Rodgers, Lecture, September 28 1912, 1912 Summer Conference, Volume V, RG 12, NHC, 107-10.

⁸² Commander Reginald Plunkett (later Drax), “Naval Education: Its Effect on Character and Intellect,” *Naval Review*, February 1913, 31.

strategy, and doctrine. All of these—the Cabinet, the CID, the First Lord, the Admiralty Board, the War Staff, and the Home Fleet—were acting well within their responsibility, but the result was chaos. Within the Navy, the lack of a clear process prevented the development of tactical and operational doctrines, which would have made it a more efficient fighting machine.

Interestingly, in mid-1914, Churchill tried to push the Royal Navy in the direction of the United States. Against the advice of Battenberg and Jellicoe, Churchill pushed for the creation of a Training Division within the naval staff. As he put it at the time:

The individual studies, which in the absence of any coordinated system, have been pursued by many officers of senior or comparatively senior rank have led to a diversity of opinion prejudicial alike to the formation of a common body of doctrine and to continuity of training and instruction.

As C.I. Hamilton notes, the term “doctrine” was very uncommon in the Royal Navy; he suggests that Churchill picked it up from contact with Army officials. Although the Training Division plan was allowed to lapse after the outbreak of war, Churchill’s intervention correctly diagnosed part of the problem with Royal Navy policy. It is tempting to consider what British battlecruiser plans would have looked like if a Training Division had existed a few years earlier and had an opportunity to “indoctrinate” the Royal Navy.⁸³

The squabbling over battlecruisers provides an example of how damaging the “absence of any coordinated system” could be. As British operational policy lurched from plan to plan, the prospective duties of battlecruisers changed greatly. Close blockade, distant blockade, the attack by divisions, the cordon system, holding the line in the Mediterranean, and the “tactical-technical synthesis” all required different tasks for the British battlecruiser force, especially when added to Beatty’s novel interpretation of his squadron’s duties. None

⁸³ Hamilton, *Making of the Modern Admiralty*, 245-6.

of these missions were especially close to Fisher's original vision—still the basis for British battlecruiser *design*—and the ships that came out of that vision were not especially well suited for their new missions. Halting battlecruiser construction in favor of the *Queen Elizabeths* was a sensible move for the Admiralty Board, but it provided no solution for employing the extant battlecruisers.

Moving into the First World War, this problem was exacerbated by the three men at the center of battlecruiser policy. Beatty remained, but both Callaghan and Battenberg were removed from their posts early in the war, to be replaced, respectively, by Jellicoe and Fisher. By the end of 1914, the Royal Navy had a First Sea Lord, a Grand Fleet commander, and a battlecruiser squadron commander with wildly divergent ideas on how to use the battlecruisers at their disposal. Collectively, the combinations and permutations of these three incompatible views would contribute to disaster at Jutland and potential disaster at several other points during the war.

Contrary to Sumida's conclusions in "A Matter of Timing," one can certainly indict the Admiralty for its doctrinal failings in the years immediately before the First World War, failings that are thrown into sharp relief by comparison with their American counterparts. The "technical-tactical" synthesis of decisive medium-range battle was a marvel of planning, but a plan shaped by a small cabal in Whitehall was insufficient for the issues facing the Royal Navy at the time it was developed. The Churchill Board may have done away with battlecruisers in 1912, but the last of the prewar battlecruisers did not enter the fleet until late 1914, and the first of the R-class battleships was not ready until early 1916. It is not enough to concede that the implicit British doctrine entering the First World War was "antithetical to . . . the battle cruisers;" a doctrine that ignored existing warships in favor of far-off

construction was unequal to the Royal Navy's self-recognized duty to prepare for a war that could come at any time.⁸⁴

On the other hand, the United States Navy possessed a coherent battlecruiser doctrine that encompassed both their employment in combat and a set of design parameters, a doctrine that supplemented the U.S. Navy's extant fleet and strategic understanding. Crucially, this nascent doctrine was developed in part by officers with recent experience at sea talking amongst each other at Newport. Essentially, then, the eventual construction of battlecruisers would just add ships to a fleet whose officers already had a strong sense of their use. Rather than radically changing the U.S. Navy, battlecruisers would fill a well-identified role.

In that sense, 1912 assumes an importance than many writers on the U.S. Navy overlook. To say that American officers "evinced little interest" in battlecruisers before 1915 is to miss a dramatic shift in the U.S. Navy's internal vision of an ideal fleet.⁸⁵ Prior to 1912, the General Board gave no evidence that they desired to build battlecruisers, whether or not the money existed. Indeed, the General Board's discussion of the ships in 1910 suggests that battlecruisers were placed in the same category as armored cruisers: intrinsically flawed ships. By 1912, this dismissal had been flipped; instead of unnecessary fast wing ships, battlecruisers were very useful scouts. Battlecruiser construction remained predicated on progress towards an "acceptable" number of battleships, but there had nevertheless been a substantial shift in doctrine. This change can only partially be credited to foreign construction. After all, the U.S. Navy had known of British battlecruisers and German battlecruiser construction in 1910 when the General Board dismissed the type.

⁸⁴ Sumida, "A Matter of Timing," 132.

⁸⁵ Bönker, *Militarism*, 114.

It is true that Japanese battlecruiser construction induced the General Board to change course in early 1911, but their tepid endorsement of May 1911 was a hasty reaction to Japanese construction. The Board gave some sense of the strategic function of American battlecruisers, but no hint of their operational role. For that, the Board turned to the Naval War College, which, over the course of 1911-12, refined earlier appreciation for the battlecruiser's potential in scouting and screening into a focus on "distantial" work. These "strategical" roles—as opposed the "tactical" work of the fast wing—became the accepted *raison d'être* of battlecruisers within the U.S. Navy, and remained the basis for the General Board's battlecruiser designs through the Washington Conference.

CHAPTER 6: “LIKE THE CAVALRY OF A GREAT ARMY”

On the eve of the First World War, the British and American navies had divergent notions of a battlecruiser’s mission. However, members of both services took a decidedly equine approach to describing them. At the 1911 Summer Conference, the final report referred to battlecruisers as “the cavalry of the fleet.”¹ Likewise, Ernle Chatfield, Beatty’s flag captain, recollected nearly thirty years later that battlecruiser crews looked on their ships as “like the cavalry of a great army.”² Soon after the Great War, Churchill referred to the battlecruisers as “the strategic cavalry of the Royal Navy,” and lauded their commander, Beatty, as a man with a “mind . . . rendered quick and supple by the situations of polo and the hunting-field.”³

Of course, the shared cavalry metaphor covered up huge differences in intent. In Chatfield’s telling, the “cavalry” of the Battle-Cruiser Fleet were “the spear-point of the Grand Fleet,” suggesting the capacity for decisive action.⁴ In the American version, the

¹ Lt.Cmdr. T.T. Craven and Lt. T.F. Caldwell, “Tactical Question No. 2: The Use of Armored Cruisers in an Action,” 1911 Conference, Volume 3, RG12, NHC, 9.

² Alfred Ernle Montacute Chatfield, *The Navy and Defence: The Autobiography of Admiral of the Fleet, Lord Chatfield* (London, Heinemann, 1942), 139. For the same sentiment, expressed less lyrically before the war, see, for example, Alan H. Burgoyne, “Recent Developments in Battleship Type,” March 12, 1913, *Transactions of the Institution of Naval Architects*, 193, 18.

³ Winston Churchill, *The World Crisis*, volume II, quoted in Reginald Bacon, *The Jutland Scandal* (London; Hutchinson & Co., 1925), 126-8. This equine frame of mind also applied to the *Kaiserliche Marine*. One of the German battlecruisers, SMS *Seydlitz*, was named after Frederick the Great’s most famous cavalry commander. Likewise, the High Seas Fleet’s battlecruisers became known for their “death ride” at Jutland, a name borrowed from the famous cavalry charge at the battle of Mars-la-Tour during the Franco-Prussian War. Disappointingly, the Japanese Navy named its battlecruisers after mountains.

⁴ Chatfield, *The Navy and Defence*, 139.

battlecruisers were like cavalry because of the “many conditions when cavalry should not be employed to the greatest advantage;” like their land-based counterparts, battlecruisers had their uses, but they were a resource that required careful husbanding.⁵

In the opening year of the First World War, a strong case could be made for the British interpretation of the cavalry metaphor. Under the leadership of Beatty, the First Battle Cruiser Squadron (1st BCS) seemed to embody the values of the cavalry charge. The battlecruisers were by far the most active portion of the Grand Fleet, and took part in successful engagements in the Heligoland Bight, and at the Falklands and Dogger Bank. Although those battles revealed troubling information about the state of British fire control, they confirmed that battlecruisers were capable of overpowering smaller cruisers, and that the 1st BCS was a match for the German battlecruiser squadron in the North Sea.

These successes masked the incoherence that remained at the heart of British battlecruiser policy, as reflected in the distribution of the nine active British battlecruisers at the start of the war. With Beatty in the North Sea were the four ships of the 1st BCS: the three new ships built to the *Lion* pattern (*Lion*, *Princess Royal*, *Queen Mary*) and HMS *New Zealand*, a sister ship to the older *Indefatigable*. As part of the 1912 agreement forged at the CID, the four oldest battlecruisers (*Invincible*, *Inflexible*, *Indomitable*, and *Indefatigable*) were in the Mediterranean as the nucleus of the Mediterranean Fleet after the withdrawal of British battleships from that station, although when war was declared, *Invincible* was undergoing a refit in Britain. Lastly, HMAS *Australia*, a sister ship to *Indefatigable* and *New Zealand*, was with the navy of its namesake dominion, despite the Admiralty’s clear desire to

⁵ Craven and Caldwell, “Tactical Question No. II,” 9.

have the ship in European waters.⁶

This distribution represented the three distinct strains of British battlecruiser policy to date. The *Australia* was the last vestige of Admiral Fisher's stillborn "fleet unit" policy, an attempt to exercise British sea command in the Pacific through battlecruisers and flotilla rather than battle fleets. The four older battlecruisers in the Mediterranean were the result of Churchill's Admiralty retrenchment in the North Sea; when forced by other government departments to maintain capital ships in the region, the Admiralty responded by sending battlecruisers, seen as the least-painful loss from the heavy units in the North Sea. Lastly, the 1st BCS represented the main change of the Churchill years; the concentration of all heavy, modern, units in the North Sea.

Likewise, the three men with the largest impact on British battlecruiser practice—Jellicoe, appointed to command the Grand Fleet at the war's start; Beatty, in charge of the 1st BCS; and Fisher, recalled to replace Battenberg in late October—had different conceptions of the battlecruisers' role. Broadly speaking, Beatty continued to see his ships as a check on the German battlecruiser squadron, Jellicoe viewed battlecruisers as battle scouts and a fast wing, while Fisher continued to see the vessels as critical to a sea control strategy. Through 1915, they were just about able to muddle through, but the circumstances of that first year never required the 1st BCS to act in concert with the Grand Fleet's battleships.

On the other side of the Atlantic, the war indirectly gave the General Board the chance to build battlecruisers. At the beginning of the war, the prospects for increased construction seemed remote, but the war shocked the country, and provided political cover for higher military spending. Off the back of President Wilson's "preparedness" movement,

⁶ John Roberts, *Battlecruisers* (Annapolis, MD: Naval Institute Press, 1997), 122-3.

the U.S. Navy was given a veritable blank check. Finally given “enough” money to build battlecruisers alongside battleships, the Board returned with a \$500,000,000 plan to build ten battleships and six battlecruisers over the next five years.

With the opportunity to build battlecruisers, the Board stuck to its guns and returned a decidedly “light cavalry” set of specifications. Although some of the more exuberant battlecruiser partisans in uniform predicted the imminent demise of dreadnought battleships in favor of battlecruisers, the General Board’s design was far too light to serve as a replacement. Instead, the General Board proposed the *ne plus ultra* of scouts; a ship with more speed, more guns, and far less armor than any battlecruiser in the British, German, or Japanese fleets. The design process, along with the final specifications reaffirmed the Board’s commitment to the scouting and “distantial” missions: the ship was simply too light for anything else. In essence, the General Board, secure in their theories, designed a ship that flew in the face of wartime practice.

Admiral Callaghan was forced out of his command of the Home Fleet as soon as the war started. In his place, the Admiralty Board sent Admiral John Jellicoe, who assumed command of the newly renamed Grand Fleet on August 4. Jellicoe, who had been on the original Committee on Designs, was a “fishpond” member in good standing—Fisher had been grooming the younger man for high command since his arrival at the Admiralty in 1904—but was well respected in all quarters.⁷ A gunnery officer by training, Jellicoe had

⁷ John Winton, *Jellicoe* (London: Joseph, 1981), 117.

been at the heart of the materiel changes in the Royal Navy over the past ten years, serving at the Admiralty as Director of Naval Ordnance, 3rd Sea Lord, and 2nd Sea Lord. Additionally, he was regarded as a keen tactician, and feted for his performance in command of the aggressor fleet in the 1913 exercises. Clearly, he was the obvious choice for such an important command.⁸

Although Jellicoe was a protégé of Fisher, his views on battlecruisers tended towards the conventional. To the extent that he thought about them at all, he saw them as a fast wing to the battle line.⁹ In a report written for Churchill in mid-July, while he was still 2nd Sea Lord, Jellicoe had argued that the forthcoming *Queen Elizabeth* class of fast battleships should be counted as part of the Royal Navy's battlecruiser strength, a stance that only makes sense if the battlecruisers' primary mission was the fast wing.¹⁰ While the *Queen Elizabeths* were fast enough to maneuver against the head of the German battle line, as he was well aware, they were not fast enough to keep up with German or British battlecruisers in a chase.

When the British entered the war in early August, the three battlecruisers present in the Mediterranean were the first to involve themselves. The German battlecruiser *Goeben*, stationed in the Mediterranean was naturally the primary target of the British warships, but a combination of poor leadership, inferior speed, and bad luck (*Invincible* and *Indomitable* had

⁸ For more information on Jellicoe's life, see A. Temple Patterson's *Jellicoe: A Biography* or Winton's *Jellicoe*. Reginald Bacon, Jellicoe's contemporary, also published *The Life of John Rushworth, Earl Jellicoe* (London: Cassell, 1936), which is enlivened by Bacon's familiarity with the subject.

⁹ After the war, Jellicoe claimed that battlecruisers "were designed and built in order that they might keep in touch with the enemy and report his movements when he had been found." However, his expressed sentiments before the war and in the war's early stages belie that claim. At the very least, Jellicoe considered battlecruisers an integral part of the battle fleet in action and appears to have viewed that role as their primary mission. Jellicoe, *The Grand Fleet, 1914-1916* (New York: Doran, 1919), 304.

¹⁰ Jellicoe to Churchill, July 14, 1914, *The Jellicoe Papers*, vol.1, 37-40. When faced with the possibility of the *Queen Elizabeths* actually joining the Grand Fleet's battlecruiser formations during the war, Jellicoe quickly changed his mind.

actually come across *Goeben* hours before the British declaration of war before losing her in the night), meant that the only British ships to encounter *Goeben* were a collection of cruisers under the command of Rear-Admiral Ernest Troubridge. Citing the *Goeben's* greater range, speed, firepower and his explicit orders to avoid a fight with a superior force, Troubridge declined action, allowing *Goeben* to sail unmolested to the Dardanelles and join the Ottoman Navy. Troubridge was court martialed for his decision and, though acquitted, his career was ruined.¹¹

Although most of the attention paid to the *Goeben* chase rightly focuses on Troubridge and the definition of a superior force, the entire episode demonstrated the importance of speed to battlecruiser operations. At the time, SMS *Goeben* was the fastest large warship in the Mediterranean, allowing its commander, Wilhelm Souchon, to sail from the Adriatic to bombard French North Africa and sail from there to the Dardanelles almost entirely unmolested. On the other side of the situation, the failure of the three British battlecruisers to run Souchon to the ground raised serious questions about the utility of a battlecruiser that was not the fastest ship in its area. For a class of ship marked by its speed, the lack of superiority made the three British battlecruisers little more than large gun platforms with light armor.

On the other hand, the battlecruisers in the North Sea played a more active role in the war's opening acts. One of Jellicoe's first moves after getting the Grand Fleet situated in Northern Scotland was to launch a sweep of the North Sea with most of the forces under his

¹¹ Julian Corbett, *Naval Operations: Volume I, To the Battle of the Falklands, December 1914* (London: Longmans, Green and Co. 1920), 56-73. It is somewhat ironic that confusion over a battlecruiser's fighting power would first affect the war in the Mediterranean. Before the war, both First Lord Churchill and First Sea Lord Bridgeman had defended their replacement of the Mediterranean Fleet's battleships in favor of battlecruisers by claiming that the latter possessed an immense fighting power, though one impossible to quantify or define.

command. While this sweep did not find any Germans, his initial plans suggest something of his feelings on battlecruisers. The Grand Fleet was divided into four parts, led by the light cruisers, ten miles ahead of two armored cruiser squadrons, followed by the battlecruisers on the other side of a fifteen-mile gap which were themselves fifteen miles ahead of the battle fleet. From this position, Beatty's battlecruisers could have served as a redoubt for the light and armored cruisers to fall back on, but, being about an hour's steaming behind, would have been incapable of helping them press home a reconnaissance.¹² Instead, their position, too far from British cruisers to aid their searches and too close to the main fleet to effectively screen, suggests that Jellicoe thought of his battlecruisers primarily as an aid to the main fleet (when the full Grand Fleet sortied) rather than ships with a major role to play in scouting.

The 1st BCS was also involved in the first surface engagement of the war in the North Sea at Heligoland Bight, which displayed the ability of battlecruisers to make a quick and decisive impact on cruiser actions. In late August Commodore Roger Keyes, in command of British submarines in the North Sea, and Commodore Reginald Tyrwhitt, commanding a detachment of light cruisers at Harwich hatched a plan to ambush German cruisers and destroyers on patrol in the Heligoland Bight.¹³ The operation was originally to be supported by *Invincible* and *New Zealand*, but at the last minute, Jellicoe decided to add another light cruiser squadron and the 1st BCS from the Grand Fleet as extra support, a fact that was not

¹² Jellicoe, "Sweep of the North Sea, 15th, 16th and 17th August," August 13, 1914, ADM 137/2129, TNA, 35-38.

¹³ Commodore Roger Keyes to Admiralty War Staff, August 23, 1914, in *The Keyes Papers: Selections from the Private and Official Correspondence of Admiral of the Fleet Baron Keyes of Zeebrugge*, vol. I (London: George Allen & Unwin for the Navy Records Society, 1979), 3, 9-11.

relayed to the British submarines in the area.¹⁴ In the end, the sortie ran into heavier-than-expected German resistance and had to call on the battlecruisers for support to cover their withdrawal.

That support was provided by a high-speed run from Beatty's forces, which sank two German cruisers in the space of twenty minutes and gave Tyrwhitt space to retire.¹⁵ With three German cruisers and a destroyer lost at the cost of no British ships sunk, the Battle of the Heligoland Bight was lauded as a British victory. It was also the first test of British battlecruisers in combat, and the "cavalry" appeared to have arrived just in time to save the day. Herbert Richmond, Assistant Director of Naval Operations, lauded the skirmish as a perfect use of battlecruisers in his diary, though he strongly criticized the confused staff work that marred the operation's planning and execution.¹⁶ The battle also cemented Beatty's reputation as a daring leader. The Admiralty believed, with good reason, that the Bight was swarming with German torpedo boats, submarines, and mines, all potentially deadly to British capital ships, yet Beatty seems to have had no hesitation in throwing his command into the fight.¹⁷

Despite the material success of the 1st BCS, and the dashing image of its commander, gunnery was a concern. Although Beatty's squadron had received special permission to practice at ranges as great as 16,000 yards before the war, at the 5-7,000 yards experienced at

¹⁴ Arthur Marder, *From the Dreadnought to Scapa Flow, Volume II: The War Years: To the Eve of Jutland* (London: Oxford UP, 1965), 51. Indeed, the British submariners, told to fire at anything that was not a British ship from Harwich, very nearly fired on the British reinforcements.

¹⁵ Chatfield, *The Navy and Defence*, 125-6.

¹⁶ Herbert Richmond, diary entries for August 29 and 30, 1914, in *Portrait of An Admiral*, ed. Arthur J. Marder (Cambridge, MA: Harvard UP, 1952), 103-4.

¹⁷ Chatfield, *The Navy and Defence*, 124-5.

Heligoland, the quality of the battlecruiser fire was troubling. Chatfield wrote after the battle that visibility was poor, making it near impossible to take ranges with the directors and very, very difficult for the individual turret periscopes as well. Even the Argo clock, a critical piece of equipment for continuous aim fire, broke after the first salvo.¹⁸ To sink the two German cruisers dispatched by the battlecruisers, *Lion* alone fired 119 shells from its main 13.5” guns.¹⁹

Even considering the poor visibility, this was a dismal gunnery performance. 7,000 yards was almost point-blank range by 1914; somewhat below the ranges Sumida has identified as Jellicoe’s ideal, and well below the ranges at which these battlecruisers were designed to fight. Fisher’s original battlecruiser concept assumed that advances in fire control gave the Royal Navy an ability to score hits at long ranges where battlecruisers would outgun pre-dreadnoughts. Indeed, the high speed of battlecruisers was intended to maximize this supposed advantage, by allowing them to reach an ideal position before unleashing a flurry of high caliber fire. Even with the spread of dreadnought-type battleships, the ability to hit at range would allow battlecruisers to sink cruisers and destroyers beyond torpedo range, and a number of British officers believed that the speed of battlecruisers enabled them to attack an enemy battleship column from ahead or behind, where most of the enemy fire would be masked.

The fight off Heligoland suggested that the assumptions behind this conception of the battlecruiser were rather problematic. Fisher’s original battlecruiser idea placed firepower over armor because he assumed that the British ships could overwhelm an opponent in a

¹⁸ Chatfield to Beatty, “Remarks on Cruiser Action of 28th August,” August 31, 1914, BTY 3/1/7, Caird Library, NMM.

¹⁹ Chatfield to Beatty, December 23, 1914, BTY 3/1/10, Caird Library.

flurry of shells to open an engagement, preventing them from exploiting their weak armor.²⁰ However, if shooting remained so poor, the hoped-for debilitating fire—the key assumption underpinning the battlecruiser design—would never come, creating problems against both German battleships and the heavily armored German battlecruisers. Indeed, given the commonalities between battlecruiser and dreadnought fire control systems, Jellicoe's alleged preference for a short medium-range battle followed by a turn out of torpedo range may have been beyond the technological capacity of the British fleet.

Outside of European waters, HMAS *Australia* spent the first few months of the war fulfilling its intended mission of trade protection in the Far East. Specifically, *Australia* protected troop convoys, and joined in the search for the German East Asia Squadron, a collection of two late-model armored cruisers and four light cruisers that spent the early weeks of the war attacking Allied shipping in the Pacific and Indian Oceans. While *Australia* did not catch the raiders, it seems as if her presence in Australasian waters was enough to convince the German commander, Vice Admiral Maximilian von Spee to decamp for South America with his squadron, save for one light cruiser that remained in the area, a partial success for the fleet unit model.

A month after von Spee left for South America, Admiral Battenberg was forced out of the Admiralty to be replaced by Fisher. Battenberg had evinced no special interest in battlecruisers during his term but, of course, they were at the center of Fisher's strategic worldview. It is no surprise, then, that upon the German East Asia Squadron appearing off the coast of Chile, and destroying the cobbled-together British forces in the area at Coronel

²⁰ Of course, by 1914 Fisher and many officers associated with him were of the belief that the size and power of modern naval artillery made heavy armor an unnecessary waste of precious tonnage and speed on large warships.

on November 1, his response hinged on battlecruisers. Using the North Sea battlecruisers as a central strategic reserve, he sent *Princess Royal* to the Western Atlantic to watch the Germans ships interned in New York harbor and the Panama Canal while sending *Invincible* and *Inflexible* (no longer in the Mediterranean) to the Falklands, the closest British base to Coronel. Even at a time like this, Fisher was unable to avoid a touch a personal pettiness. The latter two ships were placed under the command of Vice Admiral Doveton Sturdee. Sturdee, a man Fisher and many others in the Admiralty disliked, was the Chief of the War Staff, and this appointment allowed for his replacement by someone more amenable.²¹

This use of battlecruisers—exactly what Fisher had intended to use them for when the type was invented—sat uneasily with other elements in the Navy. Soon after the three battlecruisers had been detached for service in the Atlantic, Beatty wrote to Jellicoe arguing that his squadron “should always remain a concentrated force,” to enable it to meet its German opposite number, pointing to Coronel as an example of the dangers of numerical inferiority.²² The next week, Beatty reminded Jellicoe that Callaghan had endorsed, and Jellicoe confirmed, that Beatty’s primary object were the four German battlecruisers and *Blücher*, a force that could not be met by the three British battlecruisers active in the North Sea, *Lion*, *Queen Mary*, and *New Zealand*.²³ For his part, Fisher, who had placed all of the North Sea battlecruisers under Beatty’s command, ensuring concentration when all were

²¹ Roberts, *Battlecruisers*, 122-3.

²² Beatty to Jellicoe, November 6, 1914, ADM 137/2134, TNA.

²³ Beatty to Jellicoe, November 13, 1914, ADM 137/2134, TNA.

present, held on to his original battlecruiser rationale, informing Beatty that “It’s NOT numbers that tell, but GUNNERY! . . . *Hit the target!*”²⁴

At the Admiralty Richmond feared that Fisher “will dissipate our forces,” an affront to the principle of concentration. He was especially concerned about *Princess Royal* steaming around the Western Atlantic with nothing her size to fight.²⁵ Jellicoe, too, was worried about concentration, though for a somewhat different reason. Although he passed along Beatty’s request to the Admiralty, and shared his concern about their superiority over the German squadron, he related to Fisher that his ideal was to “form *two* battle cruiser squadrons, one for each end of the line when line of battle is formed.” Ideally, one squadron would be composed of the three *Lions* and *Tiger*, when ready, with the older battlecruisers in a separate squadron. The *Queen Elizabeth*, nearing full commissioning, would be assigned to one of the two battlecruiser squadrons, depending on her speed at trials.²⁶

As it turned out, Fisher’s use of battlecruisers as a strategic reserve proved successful. *Invincible* and *Inflexible* arrived in the Falklands the day before von Spee intended to attack the main port. Surprising von Spee’s squadron with their presence in harbor, the two battlecruisers, and their escorts proceeded to chase the German squadron, sinking the two German armored cruisers and two of his three remaining light cruisers in an engagement

²⁴ Fisher to Beatty, November 19, 1914, *Fear God and Dread Nought*, ed Arthur Marder, Vol. III (London: Jonathan Cape, 1959), 77.

²⁵ Richmond, Diary entry, November 15, 1914, *Portrait of an Admiral*, 127-8. Here, Richmond displays a curious ignorance of Fisher’s ideas, which he must surely have been aware of from his time on Fisher’s staff during his first stint as First Sea Lord; sending battlecruisers against smaller, slower, weaker, ships was *exactly* the point of building them.

²⁶ Jellicoe to Fisher, November 18, 1914, *The Jellicoe Papers*, ed. A. Temple Patterson (London: Navy Records Society, 1966), 96.

whose result was never seriously in doubt. SMS *Dresden* escaped, and was finally cornered and sunk the following March.²⁷

Strategically, the Falklands were a vindication of Fisher's faith in the battlecruiser and its trade-protection mission. In a single day, two battlecruisers had effectively destroyed the last remaining group of German warships outside of European waters at very little risk to the battlecruisers themselves. As the CID Secretary put it in a message to Fisher, the battle was "your triple triumph: A personal triumph. A triumph of correct strategical principles. A triumph for your type of ship."²⁸ Julian Corbett saw the episode as Fisher "at his best—swift, miraculously swift . . . dictated by a sure intuition."²⁹ Even Richmond, unhappy with the removal of *Princess Royal* for North America was willing to concede that the battle was a good use of battlecruisers.³⁰

Tactically, though, the Battle of the Falklands confirmed the gunnery problems faced in the Heligoland Bight. Under ideal visibility conditions, and nearly unmolested by German fire, the two battlecruisers only hit with 7% of their shells, taking five hours to dispatch two armored cruisers, at distances between 12,000 and 16,000 yards. These distances were longer than typical pre-war battle practice (although the prewar 1st BCS, which neither *Invincible* nor *Inflexible* were part of, had conducted exercises at that range), but well within range.

²⁷ Marder, *The War Years*, 125-7.

²⁸ M.P.A. Hankey to Fisher, quoted in Marder, *The War Years*, 92.

²⁹ Corbett to Henry Newbolt, December 11, 1914, CBT/3/7/88, NMM.

³⁰ Richmond's diary, December 13, 1914, *Portrait of an Admiral*, 130-1.

After firing 1,200 shells between them, the two battlecruisers were left with around 30 rounds per gun; it is perhaps fortunate that they were not the ships that ran down *Dresden*.³¹

The quality of British ammunition may have contributed to the poor performance, but the main problems again were spotting and control, the executive officer of *Invincible* noting the difficulty of gunnery against “constant changes in course and speed,” as well as *Inflexible*'s smoke.³² *Inflexible*'s head of gunnery, Lieutenant Commander Rudolf Verner, told his captain after the battle that he “had the feeling that I was perpetually ranging and had no grip on the target.”³³ Perhaps this was because the range finders affixed to the two battlecruisers lacked the ability to determine accurate distance at those ranges; an incredible oversight.³⁴ At any rate, two of the rangefinders on *Inflexible* at least, were put out of action due to smoke and splinters, while another one gave consistently inaccurate ranges.³⁵ With that level of performance, the ability of battlecruisers to have a decisive impact in battle against the High Seas Fleet or the 1st Scouting Group must have been thrown into serious doubt.

Just days after the Falklands, German battlecruisers shelled the towns of Hartlepool, Scarborough, and Whitby, in northeast England, causing little military damage, but killing more than a hundred Britons, mostly civilians. British intelligence had given advance notice

³¹ Captain P.G.E.C. Acheson, diary entry, December 9, 1914, PGA/1, Captain P.G.E.C. Acheson Papers, Documents 1617, Imperial War Museum, London.

³² Commander Richard Townsend, letter, December 10, 1914, Commander Richard H.D. Townsend Papers, Documents 4480, Imperial War Museum.

³³ Lieutenant Commander Rudolf Henry Cole Verner to Captain Richard Phillimore, December 18, 1914, RFP/5, Admiral Richard Phillimore Papers, Documents 5615, Imperial War Museum.

³⁴ Sumida, *In Defence of Naval Supremacy*, 297-8.

³⁵ Verner to Phillimore, December 18, 1914.

of the sortie, though not its destination, and the entire Grand Fleet steamed to catch the raiders on the way back. Although one of the Grand Fleet's light cruiser squadrons spotted the German battlecruisers on their way back to Germany, in time for Beatty to attempt an interception, a combination of poor visibility, unclear communications and a convoluted chain of command (the commander of the 2nd Battle Squadron, nearby, but not involved in the chase, outranked Beatty and was thus technically in charge of the warships in the area) conspired to allow the Germans to make a narrow escape without encountering heavy British ships.³⁶ Interestingly, an Admiralty report on the battle sent to the unit commanders concerned a few weeks later suggested that if Beatty had been willing to spread his battlecruisers out of visual range of each other, the German ships might have been brought to action, although Jellicoe contended that this would have been a violation of "the invariable rule" of concentration.³⁷

Although the December 16 battlecruiser raids were not the first of the war, they prompted serious changes in the organization of British forces in the North Sea. The raid had a great political impact in Britain and on the 20th, under what must have been intense pressure from the Cabinet, the Admiralty ordered the Grand Fleet's battlecruisers and a squadron of light cruisers to Rosyth in the Firth of Forth, some 200 miles south of the Grand Fleet's base in Scapa Flow. It was hoped that this would place them in a better position to intercept German raiders attacking the English coast, though it added some obvious

³⁶ This account of the action is primarily based on the records concerning the battle in BTY/3, NMM.

³⁷ Admiralty memorandum, January 6, 1915, and Jellicoe to Admiralty, January 14, 1915, BTY/3, NMM.

difficulties in getting the Grand Fleet's battlecruisers and battleships to link up on the increasingly rare occasions when the entire fleet sortied.³⁸

Understandably, Jellicoe was opposed to the move. Three days after the initial order was sent, he wrote Fisher of his "fear" that "this perpetual idea of raids will affect our strategy." This was especially galling as, in his view, preventing nuisance raids from battleships, let alone battlecruisers, was essentially impossible. Beatty, on the other hand, was getting exactly what he had wanted ever since the 1913 exercises: permission to focus his entire attention on the German battlecruisers, and an escort of light cruisers—a screen that allowed his squadron to operate independent of the rest of the Grand Fleet.³⁹ While Beatty's cruisers were formally under the command of Jellicoe in the Orkneys, the move down the coast gave the British battlecruiser force a great deal of autonomy; almost independence.

Even better for Beatty, by the start of 1915 it appeared as if he would get control of *Queen Elizabeth* once she entered active service. Churchill had promised him the ship at the end of November, a move that would have strengthened Beatty's squadron at the cost of some speed, though she was about as fast as the three earliest battlecruisers under ideal conditions.⁴⁰ Fisher went a step further, promising to add *Queen Elizabeth* to *Inflexible*, *Invincible*, and *Indomitable* as a second division of the BCS.⁴¹ This would have created a rather powerful force, though one of uncertain mission. If the goal of placing the battlecruisers in Rosyth was really to stop German battlecruiser raids, the addition of a

³⁸ Admiralty to Jellicoe, December 20, 1914, *Jellicoe Papers*, 112.

³⁹ Beatty, "Battle Cruisers," March 3, 1914, ADM 1/8372/46, TNA.

⁴⁰ Churchill to Beatty, November 30, 1914, BTY 14/4/1, NMM.

⁴¹ Fisher to Beatty, January 6, 1915, *FG&DN*, 127.

slower battleship would stiffen the BCS's spine, but would do nothing to help the BCS catch German raiders.

Fisher certainly realized this issue, and spent the two months after the Battle of the Falklands and the December 16 raids leveraging the fresh wartime prestige of battlecruisers into new construction. On December 19, Fisher came to Director of Naval Construction Eustace Tennyson D'Eyncourt with specifications for a new battle cruiser, "Rhadamanthus," a 32-knot battlecruiser with six 15" guns and "armored like 'Indefatigable.'" The ship, Fisher assured D'Eyncourt, "will immortalize you."⁴² More prosaically, the ship would use up 15" gun mountings originally destined for an R-class battleships of the 1914-15 program. Not only, then, did the *Rhadamanthus* design offer a chance to prepare battlecruisers on the cheap, but fulfill his long-held goal of replacing battleship construction with battlecruisers.

Rhadamanthus proved a hard sell. Despite Fisher's enthusiasm, Churchill demurred, telling Fisher that he was "entirely opposed" to new capital ship construction, fearing that they would still be under construction by the time the war ended."⁴³ Facing this roadblock, Fisher attempted to enlist Beatty and Jellicoe to his cause, writing to the latter for "a casual sort of letter which I can show to the Cabinet (*not as if you were responding to my request; not an official memorandum*)," to force action upon the Admiralty.⁴⁴ Jellicoe did send the letter on the 29th, but by December 28, D'Eyncourt was informed that he had permission to

⁴² Fisher to D'Eyncourt, December 19, 1914, DEY/16, NMM. This design, which eventually became the basis for the *Repulse* class of battlecruiser, proved to be almost universally disliked within the Royal Navy. Perhaps this explains why D'Eyncourt erased Fisher's "immortalize" sentence from a photographic reproduction of the memorandum made for a 1924 lecture (DEY/40, NMM).

⁴³ Churchill to Fisher, December 21, 1914, *FG&DN*, 105.

⁴⁴ Fisher to Jellicoe, December 23, 1914, *Jellicoe Papers*, 115.

proceed with the design, Fisher having told Churchill that Jellicoe supported the battlecruisers on Christmas.⁴⁵

Repulse and *Renown* were laid down on January 25, 1915, and the two ships represent, perhaps, the purest expression of Fisher's design principles.⁴⁶ Much has been made of Fisher's outsized role in getting the initial group of three battlecruisers designed and approved in 1904-5, but even those designs were filtered through a committee of experts, who were at least partially responsible for giving them 12" guns instead of the 9.2" guns the original "Naval Necessities" memorandum had called for in 1904.⁴⁷ A close look at the design process for *Repulse* and *Renown* shows that the only voice that mattered was Fisher's. D'Eyncourt, ostensibly responsible for the design, merely followed the directions laid out in the (very short) 'Rhadamanthus' memorandum.

Writing after the war, Churchill claimed that Fisher's "surge of impulse" convinced him and, presumably, the remainder of the Board to acquiesce in Fisher's plan to turn *Repulse* and *Renown* into battlecruisers.⁴⁸ If true, the episode highlighted how broken the Admiralty's system of warship design truly was. Although Fisher and D'Eyncourt had a model of the new design made to show Beatty and Jellicoe, at no point did Fisher or D'Eyncourt consult with the two men who, presumably, would be responsible for using the new ships in combat, about the ships' capabilities. Indeed, in late January, Fisher rejected Jellicoe's suggestion of adding an extra turret to *Repulse* and *Renown*.⁴⁹ Even if Fisher had

⁴⁵ Sumida, *In Defence of Naval Supremacy*, 291.

⁴⁶ D'Eyncourt, "Enclosure on H.M.S. 'Repulse' Progressive Trials," September 16, 1916, DEY/27/2, NMM.

⁴⁷ Fisher, "Naval Necessities, Vol. I," ADM 116/3092, TNA, 62.

⁴⁸ Churchill, *The World Crisis*, Vol. I (New York; Charles Scribner's Sons, 1923), 495.

⁴⁹ Fisher to Jellicoe, January 22, 1915, *FG&DN*, 143-4.

been inclined to listen to others on the design of his pets, Jellicoe's letter came far too late in the greatly accelerated design cycle. For his part, Beatty seems to have been completely in the dark about their construction schedule as late as January 28.⁵⁰ Jellicoe's request suggests that he was well aware of the remarkably poor shooting of the battlecruisers at Heligoland and the Falklands, and wanted an extra pair of guns to give a better chance of hitting the target.⁵¹ It is also virtually certain that both men would have asked for increased armor; at least on the level of the *Lions*.

However, by this point, the Admiralty had been hijacked by the passions of Churchill and Fisher. We have already seen how Fisher was able to create his own construction policy with little to no oversight, but his nominal superior was also able to push through his plans. Upon the war's outbreak, Churchill, who took a broad view of his prerogatives, bypassed both the Admiralty Board and the Admiralty War Staff in favor of an ad-hoc "War Staff Group" that replaced the staff's functions. Although the Chief of Staff was a member, it also included Churchill, the First Sea Lord, the Second Sea Lord, and the Permanent Secretary. Aided by unattached senior officers like Callaghan and Wilson, this body usurped much of the authority of the Board and the Admiralty staff while concentrating power in fewer hands.⁵²

Despite the eminence of many War Staff Group members, they proved unable to resist Churchill's combination of executive authority and passion.⁵³ After just two weeks of

⁵⁰ Beatty to D'Eyncourt, January 28, 1915, DEY/17, NMM.

⁵¹ Although speed exacerbated all of the problems with WWI-era fire control, by the end of the war it was clear that, as poor as the shooting at those two battles had been, it was the rule, rather than the exception, for British capital ships.

⁵² Hamilton, *Making of the Modern Admiralty*, 228.

⁵³ Hamilton, *Making of the Modern Admiralty*, 230.

war, Richmond had written about “the servile Sea Lords & C.O.S. when faced with Churchill’s penchant for plans that were more spectacular than sensible.⁵⁴ In early January, when asked to plan a Board-approved (but fortunately never carried out) scheme of Churchill’s to capture the island of Borkum, off the Frisian coast, Richmond wrote that the idea was “*quite mad* . . . I have never read such an idiotic, amateur piece of work as this outline in my life.”⁵⁵ Early January was also when Churchill set his Dardanelles plan into motion that would eventually end his term in office, another operation conceived without the input of the Board.⁵⁶ Instead, Churchill communicated directly with Vice Admiral Sackville Carden, the British commander in the Eastern Mediterranean.⁵⁷

The day before *Repulse* and *Renown* were laid down, the German and British battlecruiser forces fought near the Dogger Bank, where the German 1st Scouting Group was supporting a light cruiser attack on a British fishing fleet, thought to be there for espionage purposes.⁵⁸ Having received advanced notice of the sortie from signals intelligence, the Admiralty sent the entire Grand Fleet to meet the raid, with Beatty and the lighter forces in front to flush the Germans towards the battle squadrons. In the end, the British were unable to force the Germans north towards the remainder of the Grand Fleet, and main portion of the battle was a running artillery duel between the two sets of battlecruisers, five British, and

⁵⁴ Richmond diary, August 14, 1914, *Portrait of an Admiral*, 99.

⁵⁵ Richmond diary, January 4, 1914, *Portrait of an Admiral*, 134-5.

⁵⁶ The Dardanelles Commission would eventually conclude that a major factor in the disaster was Churchill’s tendency to run the Navy through the War Staff Group (Dardanelles Commission: First Report,” 1917, GEE/11, NMM).

⁵⁷ Bell, *Churchill & Sea Power*, 62-3.

⁵⁸ Except where noted, the account of the battle is derived from Corbett, *Naval Operations*, Vol. II (London: Longmans, Green and Co., 1921), 82-97.

three German, along with *Blücher*. In the end, the British did sink *Blücher*, but the rest of the Scouting Group escaped, and *Lion* suffered extensive damage.

The Battle of Dogger Bank took place at long ranges—firing started at 20,000 yards and dropped to about 15,000 in the main part of the action—and again battlecruiser gunnery was suspect. Though Chatfield later assured Beatty that it was possible to score hits at those ranges, and SMS *Seydlitz* was nearly sunk by a British shell and a magazine fire, it was at the ragged edge of contemporary fire control, and nearly impossible to hit the target *consistently*. At these distances, spotters could not see the splashes of long misses, or the muted flashes of hits with AP shells. With short misses the only evidence available for gunnery control, Chatfield suggested aiming deliberately short in the future and then “work it up by small ‘ups,’” until no short splashes were seen and, presumably, the target hit.⁵⁹ Even worse, the Dreyer mechanical tables, at least the latest model installed in *Tiger*, used to track the rate of change in a target’s movement, lacked the ability to handle ranges greater than 17,000 yards.⁶⁰ If nothing else, the battle was proof that despite Fisher’s exhortations, battlecruisers were incapable of rapid, effective fire at long ranges, and could not come close to overwhelming the enemy squadron.

During the battle, *Lion* was the only British ship to come under heavy fire, due to the Scouting Group concentrating its fire on the British van, and it took a fair amount of damage from their attentions. Although *Lion* was never in danger of sinking during the battle, her speed was reduced to 15 knots, leaving her unable to lead the pursuit of the remaining German ships (by this point Hipper had abandoned *Blücher* to her fate). Active command

⁵⁹ Chatfield to Beatty, February 2, 1915, *Beatty Papers*, 232.

⁶⁰ Captain Pelly, *Tiger*, to Beatty, January 25, 1915, *Beatty Papers*, 241.

was shifted to Rear Admiral Archibald Moore, the commander of the 2nd BCS aboard *New Zealand*, but based on a series of signaling mishaps, instead of pursuing the retreating Germans, as Beatty tried to signal, he turned his attention to the crippled *Blücher*, sinking her, but letting the other German ships escape.⁶¹

Of course, had Moore correctly divined Beatty's confusing orders and proceeded to chase the 1st Scouting Group, the result could have been disastrous. With *Queen Mary* and *Invincible* undergoing dockyard maintenance, and *Indefatigable* and *Inflexible* at the Dardanelles only five battlecruisers were available to Beatty on the day. The temporary disablement of *Lion* meant that only *Tiger* and *Princess Royal* were capable of catching the German battlecruisers, *Indomitable* and *New Zealand* being too slow. If the chase had continued, the duel between *Tiger* and *Princess Royal* on one side, and *Derfflinger* and *Moltke* on the other may have gone poorly for the British, especially since the recently commissioned *Tiger* was not yet up to full wartime efficiency.

Furthermore, the battle highlighted the importance of small differences in speed in battlecruiser warfare. The six battlecruisers of the *Invincible* and *Indefatigable* classes (*Australia* was on the way back from the Far East at the time of the battle and would reach the North Sea in February), were near-useless for the sort of war that Beatty wanted to fight, and that the British forces in the North Sea had been fighting thus far. With the danger from submarines and mines, major units could not sortie very often, and certainly not in support of relatively expendable light cruisers. When the battlecruisers did sortie, it was to chase their opposite numbers, which the six older battlecruisers were simply unable to do. Critics of the type had suggested that a battlecruiser robbed of its speed was a near-useless warship, and

⁶¹ Corbett, *Naval Operations*, Vol. II, 93-7.

the evidence from the Dogger Bank suggested that this was equally true of undamaged battlecruisers superseded by newer and faster ships.

There was a final, troubling suggestion from the battle. In an addendum to his formal after action report, Moore passed along his concerns about the armor of British battlecruisers. At the extreme ranges encountered during the battle, the horizontal armor of the British battlecruisers—the armored deck and the roofs of the turrets and conning towers—were too thin to handle the effects of plunging fire. As in battleships, the thickest armor in British battlecruisers was vertical, protecting the conning tower, turrets, and waterline. At the shorter ranges (10,000 yards at the most), and thus shallower angles of fire expected in combat by prewar designers there was little chance of a heavy shell striking a horizontal surface at any angle approaching perpendicular, allowing them to skimp on horizontal protection (the turret and conning tower roofs on the six older battlecruisers were only 2-3” thick).⁶² At 20,000 yards, both German and British guns had to fire at an elevation at or above twenty degrees, greatly increasing the chances of a direct hit on the vulnerable roofs.⁶³

No immediate movement was made on the subject of armor, but soon after the battle, the independence implicitly granted to the battlecruisers was formalized with the creation of the Battle Cruiser Fleet in February.⁶⁴ Beatty, senior to Moore, had the overall tactical command at Dogger Bank, but no day-to-day oversight of the battlecruisers outside of his own 1st BCS. Adding this extra layer gave Beatty formal control over all of the North Sea battlecruisers, now split into three squadrons by class, as well as associated formations of

⁶² Roberts, *Battlecruisers*, 99-112.

⁶³ Moore to Beatty, January 29, 1915, BTY 4/2/1, NMM.

⁶⁴ Marder, *The War Years*, 174.

light cruisers and destroyers. In theory, though they remained a part of the Grand Fleet organization, such a move would make the forces stationed at Rosyth work as an efficient unit operating under the same fighting instructions and undergoing the same training. Had Moore been more familiar with Beatty, for example, the confusion over orders at Dogger Bank may have been resolved quicker.

On the other hand, it was hard for Beatty—as it would have been for anyone in that position—not to falsely regard the BCF as an entirely independent formation free to pursue its war on the 1st Scouting Group instead of concentrating on scouting for the Grand Fleet. Indeed, a year into the BCF experiment, Jellicoe lamented to the new 1st Sea Lord, Henry B. Jackson, that Beatty was too inclined to think himself independent, viewing his role as initiating contact with the German forces more than scouting.⁶⁵ On a more theoretical level, it is fair to wonder what exactly the point of a fleet of battlecruisers was, especially in the confines of the North Sea. In Fisher's conception, the type was the antithesis of concentration, and the gap in speeds between the two component squadrons would make cooperative action difficult, as Dogger Bank had shown.

Despite the problems revealed by the action at Dogger Bank, Fisher maintained his advocacy of the type. In a letter to Beatty in early February, he predicted that the battlecruisers would “finish the job” without the rest of the Grand Fleet coming to grips with the German battle squadrons.⁶⁶ With Jellicoe, Fisher hedged a bit, claiming that the battlecruiser would win the naval war, but only if accompanied by the first two *Queen*

⁶⁵ Jellicoe to Jackson, March 5, 1916, *Jellicoe Papers*, 225-6.

⁶⁶ Fisher to Beatty, February 8, 1915 *FG&DN*, 155-6.

Elizabeths and stationed apart from the Grand Fleet in Rosyth, closer to German bases.⁶⁷

Fisher's letter to Beatty also informed him that the Admiralty was preparing a "surprise packet for Tirpitz! . . . [S]o secret that the whole correspondence for them is only on one half-sheet of notepaper."⁶⁸

This "surprise packet" Fisher referred to was not news of *Repulse* and *Renown*, also designed on "one half-sheet," but a new class of "large light cruiser" Fisher intended for a war-winning operation in the Baltic. Developed with the assistance of Julian Corbett, Fisher planned to force the entrance to the Baltic, achieve local superiority there, and in conjunction with the Russian Army, land forces in Pomerania, near Berlin.⁶⁹ To that end, the newly designed cruisers had an extremely shallow draft for use in Baltic waters. The cruisers also had incredibly light armor, the legacy of a government prohibition on new wartime capital ship construction (the first two wartime battlecruisers were technically redesigns of previously approved battleships).⁷⁰ Although the plan belonged to Fisher and Corbett, there is little doubt that Churchill shared their understanding that the Baltic could be the decisive theater of the naval war.⁷¹

The day after Dogger Bank, Fisher wrote Churchill, trying to convince him of the necessity for "a Cruiser of 32 knots speed and 22.5 feet draught of water, carrying four 15-inch guns."⁷² Churchill would later call these ships "an old man's children . . . wanting in the

⁶⁷ Fisher to Jellicoe, February 8, 1915, *FG&DN*, 154-5.

⁶⁸ Fisher to Beatty, February 8, 1915.

⁶⁹ Marder, *The War Years*, 191-3.

⁷⁰ Marder, *The War Years*, 95-6.

⁷¹ Christopher Bell, *Churchill & Sea Power* (Oxford: Oxford UP, 2013), 56-7.

⁷² Fisher to Churchill, January 25, 1915, DEY/29, NMM.

structural strength and armor which the new conditions of war more than ever required,” but he raised no objections at the time and allowed the idea to proceed.⁷³ On January 29, D’Eyncourt presented the 3rd Sea Lord with preliminary plans for the large light cruiser, a 32-knot ship with four 15” guns and 3” side armor, though rising to 9.7” in the turrets.⁷⁴ Stanley V. Goodall, a constructor under D’Eyncourt, would later calculate that the armor on the new *Courageous*-class ships only accounted for 7.4% of the weight, 1,420 tons on a 19,171-ton displacement.⁷⁵

The *Courageous*, *Glorious*, and *Furious*, a slightly later addition to the class with a battery of only two 18” guns, were the last warships Fisher played a hand in developing, and they serve as a fitting monument to his second stint at the Admiralty. At a time when the fleet was discovering that hits at long range were a product of volume of fire more than precision and some battlecruiser officers were becoming very concerned about their ships’ protection, Fisher delivered two classes of ships that utterly failed to integrate wartime experience, as perceived by those who had actually experienced it. Had the ships gone through anything approaching a normal design process, it is probable that objections would have been raised, the first set of designs modified, and the second binned, but Fisher was able to take advantage of the chaotic wartime Admiralty and bypass formal discussion by going straight to the First Lord.

The result was three ships even less suited to the actual naval war than *Renown* and *Repulse*. In early 1916 Beatty would call the under-construction vessels “freak ships which

⁷³ Churchill, *World Crisis I*, 500-1.

⁷⁴ D’Eyncourt to F.C.T. Tudor, January 29, 1915, DEY/29 NMM.

⁷⁵ S.V. Goodall, “‘H.M.S. COURAGEOUS.’ FINAL WEIGHT OF HULL & DISPLACEMENT,” December 16, 1916, DEY/29, NMM.

with no defensive power and greatly reduced offensive (only four guns) could not be expected to engage successfully a heavily armored ship with double their offensive power,” adding that if *Lion* were so lightly armored, she would not have survived the Dogger Bank battle.⁷⁶ In fact, as war experience had shown, with only four guns, the “freaks” would have had trouble hitting anything at battle ranges.

Still, the outcome of this irregular process need not have been a failure. To name one example, the development of the first tanks, which took place at around the same time, also involved an ad hoc planning process overseen by Churchill. Fisher, however, despite his correspondence with and personal affection for Beatty and especially Jellicoe, was entirely at odds with the prevailing thinking in Scapa Flow and Rosyth. The result was the construction of five ships that took none of the supposed lessons of the war to heart. Although he was well aware of the conditions prevailing in the North Sea, given the opportunity to design battlecruisers from scratch, Fisher essentially created an updated version of the original *Invincible* class.

The process leading to Fisher’s new battlecruisers did not reflect well on the wartime Admiralty, but it also stands as an indictment of the prewar Admiralty. Once the Churchill Admiralty decisively killed the fleet unit idea and decided to introduce *Queen Elizabeths* in lieu of new battlecruiser construction, the Navy’s leadership seems to have lost interest in the ships. Apart from the four ships sent as a makeweight to the Mediterranean, there seems to have been the idea that such large and powerful ships would be best used in the North Sea, but without a clear sense of how to use them. Beatty and Callaghan reached an understanding that their primary mission was going after their German counterparts, but this simplistic

⁷⁶ Beatty to H.H. Asquith and Jellicoe, February 3, 1916, *Jellicoe Papers*, Vol. I, 209.

strategy was not shared by the Navy at large, the Admiralty, or Callaghan's successor, who viewed them as fast wing ships with an additional scouting mission.

More than an administrative or strategic failure, the five wartime battlecruisers were evidence of a doctrinal failure—not a failed doctrine, but its complete absence. A prevailing battlecruiser doctrine—formal or informal—would not have prevented the tension between Beatty and Jellicoe over where to station the BCF and how much independence to give it, and would not necessarily have mitigated the poor performance of battlecruiser fire control in the Great War's early months. However, such a doctrine almost certainly would have prevented Fisher and D'Eyncourt presenting the Grand Fleet with five ships that, even in early 1915, were clearly unsuited for the war that was being waged, and unwanted by the commanders on the scene. The ships were more or less ideal for Fisher's coherent battlecruiser doctrine, but at that point, it existed mostly in his own head, and he lacked the statutory ability to impose it on his nominal subordinates.

By contrast, the United States entered the war years with a firm battlecruiser doctrine focusing on scouting and detached operations, but no battlecruisers, and seemingly no immediate prospects of obtaining them without compromising the Navy's all-important battleship program. When events in 1915 allowed for the expansion of the U.S. Navy, its leadership opted for a battlecruiser program in line with their prewar expectations. The war provided the resources, but for the most part their ideas about how to use them remained stable.

American officers paid keen attention to the events in Europe, but the quality of information available made drawing firm conclusions difficult. *Proceedings* did publish a “War Notes” section throughout the conflict, including official and press accounts of the major engagements, but the information that did reach the United States came mostly from the Allied side, through severe censorship. As a result, the United States had a reasonably good idea of *what* happened during the war, but very little of the *why* or *how*.

What information there was seemed to support the Navy’s pro-battlecruiser faction, the majority opinion within the Navy’s uniformed leadership since at least 1912. Late in 1914, Commander P. Symington, an attaché in London, wrote to Captain James H. Oliver, the Director of Naval Intelligence, to press the case for battlecruisers. Although Symington was a longstanding supporter of the ships, the events of the Great War gave his opinions a new urgency. Perhaps with the November German raid on Yarmouth fresh in his mind, he wrote of his fear that American communications in a war with Japan would be “helpless . . . should the Japanese have the use of four Kongo ships for raiding purposes.”⁷⁷ Two months later, William Sims reworked his 1911 Long Course scouting paper for the benefit of the General Board, which commented approvingly on battlecruisers in the scouting and screening missions, though not for raiding enemy communications or coastlines.⁷⁸ Although the U.S. Navy had considered using battlecruisers to raid enemy communications and isolated outposts, raiding civilian settlements is one idea that does not appear in the Navy’s battlecruiser deliberations. The Board was not, however, above using the shocking German

⁷⁷ Commander P. Symington to Captain James Oliver, December 10, 1914, RG 8, Box 51, Folder 6, NHC.

⁷⁸ Sims, “Memorandum on Scouting and Screening,” February 5, 1915, RG 8, E 281, File 418, NARA Washington.

attacks to their advantage, especially in the cause of embarrassing the Secretary of the Navy—whom they saw as a poor advocate of the uniformed Navy’s priorities.

Using events abroad to score political points at home reflected the dynamics of the prewar U.S. Navy, and would in turn affect the eventual building and use of battlecruisers. Early 1915 was an especially fraught time in the relationship between the Navy’s senior leadership and Secretary Daniels. Faced with what he saw as Daniels’s dangerous complacency in readying the fleet for a possible war, Bradley Fiske, the Aide for Operations, the closest thing to a chief of staff in the Navy, presented Daniels with a paper detailing the flaws in the Navy, especially the lack of a specialized staff.⁷⁹ When Daniels declined to act on his recommendations, Fiske blasted Daniels in his testimony over the 1915 Navy bill, a bold step for an officer to take. Even further, Fiske, with the support of his General Board colleagues, went behind Daniels’s back, and laid out the case for a naval general staff to Congressman Richmond B. Hobson, an ex-Navy officer. With Hobson’s backing, the House Naval Affairs Committee sent a Navy Bill with provisions for creating a naval general staff.⁸⁰

Proceedings also got into the act, awarding its 1915 essay prize to an article by Lieutenant Commander Dudley Knox, “The Rôle of Doctrine in Naval Warfare.” Published in the March-April issue of the magazine, Knox argued for the establishment of a service-wide doctrine, as opposed to the narrow tactical doctrine he had helped Sims forge in the Atlantic Torpedo Flotilla. Such a doctrine “should not be built up from the little things to the larger ones, separately in each branch,” but should instead come from the top of the service.

⁷⁹ Secretary Meyer used his authority to create four “Aids” (Inspections, Material, Operations, and Personnel) to provide advice to the Secretary independent of the Bureaus. It never met with Congress’s approval and the aid system withered under Daniels. Robert Greenhalgh Albion, *Makers of Naval Policy 1798-1947*, ed. Rowena Reed (Annapolis: Naval Institute Press, 1980), 218.

⁸⁰ Paolo E. Coletta, *Admiral Bradley A. Fiske and the American Navy* (Lawrence: The Regent’s Press of Kansas, 1979), 149-52.

By creating a “concrete, comprehensive and coherent *conception* of modern war,” (emphasis in original), the Navy could develop “strategy, tactics, logistics, gunnery, ship design, ship exercise, shore and ship organization and administration,” with the greatest possible efficiency. Although Knox demurred from an explicit call for a general staff, such a staff was the only body that could possibly create that “conception of modern war.”⁸¹

Having caught the general staff bill early, Secretary Daniels was able to water down its provisions in the full House and Senate. While an Office of Naval Operations was established, the Office and its Chief were merely responsible for the active fleet and developing war plans; the unruly Bureaus remained under the direct supervision of the Secretary.⁸² Although the navalists were getting something like the dreamed of central commander and staff, their champion Bradley Fiske would not shift into the new office. As Fiske later admitted, his testimony in favor of a strong naval staff had thoroughly poisoned the well, and he submitted his resignation early in April after hearing that “things were being done by Dept. [i.e. Daniels] in work of Division of Operations without my knowledge.”⁸³

It was unlikely that Daniels would choose someone aligned with Fiske, a category that ruled out much of the Navy’s senior leadership and most of the obvious candidates. Indeed, in late April 1915, Daniels nominated Captain William Shepherd Benson, the commander of the Philadelphia Navy Yard for the CNO post, a competent officer, but not one who had any specialized knowledge or interest in the area of staff work, and *certainly*

⁸¹ Lieutenant Commander Dudley Knox, “The Rôle of Doctrine in Naval Warfare,” *Proceedings*, March-April 1915, 325-54.

⁸² Coletta, *Admiral Fiske*, 153-5.

⁸³ Bradley Fiske, *From Midshipman to Rear-Admiral* (New York: Century, 1919), 579-81.

not a man considered to be on the fast track for high command.⁸⁴ Benson himself later related that he was “the most surprised person in Washington,” when his appointment was announced.⁸⁵

Even before the identity of Fiske’s successor was known, the Board was planning a poison pill for him. Every summer, the Atlantic Fleet undertook a series of tactical and strategic exercises, but in 1915, the Board devised the exercises, rather than letting the Atlantic Fleet commander come up with his own.⁸⁶ By itself, the idea was benign, an attempt to make the exercises serve the purposes of strategic planning, much like the Board’s commissioning of reports from Newport. In this case, however, the Board—and the Assistant Secretary, Franklin D. Roosevelt—worked with a clear political purpose in mind. The 1915 exercises would serve to bolster the case of naval expansion by “making the game show what would really happen if a hostile fleet should start for our eastern coast.”⁸⁷ In Roosevelt’s words, the exercises would “be made to serve an object lesson to the country.”⁸⁸

Although Daniels expressed his clear opposition to such a “realistic” exercise, in mid-March, approving the exercises with the understanding that the “American” fleet would win,

⁸⁴ Fiske expressed shock that Daniels had chosen someone who had never “shown the slightest interest in strategy or been on the General Board, *or even taken the summer course at the war college*” (quoted in Coletta, 159). Although Benson was at the 1906 Summer Conference, the War College’s records mark him as attending only from July 14 to August 25, likely missing most of its lectures. At any rate, it is quite true that Benson had never shown any interests in that direction before, or even during, his time as CNO. It is worth noting, though, that Daniels’s decision was a poor one for his purposes; Benson was not a member of the Newport clique, but shared their aims in office, and allowed his talented subordinates to build a beefy staff organization.

⁸⁵ David F. Trask, “William Shepherd Benson,” in *The Chiefs of Naval Operations*, ed. Robert William Love, Jr. (Annapolis, MD: Naval Institute Press, 1980), 3.

⁸⁶ Bradley A. Fiske, *Midshipman*, 577.

⁸⁷ Fiske, *Midshipman*, 577.

⁸⁸ GB Meeting, March 16, 1915, *Proceedings and Hearings of the General Board*, Roll 3 (Washington, DC: National Archives Microfilm Publications, 1987), 154.

Roosevelt and the Board devised a scenario in which the fleet representing the U.S. would have little chance of success.⁸⁹ An aggressor fleet based on the German High Seas Fleet, of ten dreadnoughts, four battlecruisers, and eight pre-dreadnoughts faced off against an American fleet of six dreadnoughts and ten pre-dreadnoughts, playing out a scenario in which the “German” fleet would attempt to land 200,000 troops “somewhere between Eastport, Me., and Cape Hatteras.”⁹⁰ This scenario, it hardly needs saying, was risible. Even had the High Seas Fleet not been somewhat busy in the North Sea, carrying 200,000 men across the Atlantic to land on a hostile shore was a task probably beyond the capacity of period militaries.⁹¹ However, the exercise was carefully crafted to imply that the most densely populated portion of the country was under threat of invasion. Unsurprisingly, the Atlantic Fleet was routed in the ensuing exercises, which took place in mid-May, allowing the “German” fleet to land its invasion army in the undefended Chesapeake.⁹²

In his report on the exercises for Daniels, the referee, NWC President Austin Knight, left no doubt where he thought the causes of defeat lay:

Admiral [Frank Friday] Fletcher’s plan was excellent but it gave little hope of success in view of the marked superiority of the enemy in scouts. The advanced forces came in contact . . . on the 20th and within a few hours seven of the fifteen blue scouts were destroyed, the most effective work against them being done by the enemy battle cruisers whose high speed and long range guns enabled them to pick off the slower and weaker Blue cruisers almost at will while themselves eluding the supporting dreadnoughts.⁹³

⁸⁹ Coletta, *Admiral Fiske*, 154.

⁹⁰ “Proposed Problem for Spring Exercises, Atlantic Fleet, March 13, 1915, RG 80, E 281, File 434, NARA Washington.

⁹¹ As we have seen, several years earlier the British CID had eventually discounted the possibility of 100,000 German soldiers making it across the North Sea.

⁹² William Reynolds Braisted, *The United States Navy in the Pacific, 1909-1922* (Austin: University of Texas Press, 1971), 184-5.

⁹³ Rear Admiral Austin Knight to Secretary Daniels, “Report on the Outcome of the Exercises,” May 26, 1915, RG 80, E 281, File 434, NARA Washington.

Knight's conclusion highlights the extent to which the 1915 exercise was intended to prove a point rather than to provide an examination of open strategic or tactical questions. The General Board must have been aware that the premise of the exercise was entirely unmoored from any war experience to date. The entire situation reminds one of nothing more than a War College war game with real ships, and it returned the solution that Newport war games had been providing since about 1911: the United States Navy needed battlecruisers, not for use against battleships, but to dominate the scouting situation. The Board, especially Knight, made sure that the press got the message. Another set of less-publicized exercises was run in the early fall, again suggesting, somewhat more honestly, that battlecruisers were a critical gap in American capabilities.⁹⁴

Fiske's autobiography suggests that the idea for the May exercises may have come from an article in the *New York World* newspaper, so it is no surprise that the press was quick to notice the "lessons" of the exercise.⁹⁵ *Scientific American*, for example, argued that "[i]f the General Board send in recommendations for battle cruisers only . . . they would be fully justified, not only by the events of the war, but also by the general conviction throughout the country."⁹⁶ For their part, the editors of *The Navy* took the exercises as clear evidence "that the navy of the United States is lacking in battle cruisers."⁹⁷ On May 27, the *New York Times* published an article on the war games, with the headline "Battle Cruisers won for

⁹⁴ Knight, "Chief Umpire's Outline History of the Navy Department's Strategic Maneuver No. 2, October 4th to 9th, 1915," October 18, 1915, RG 80, E281, File 434, NARA Washington.

⁹⁵ Fiske, *From Midshipman*, 575.

⁹⁶ "An Argument for Battle Cruisers," *Scientific American*, August 7, 1915, reprinted in *Proceedings*, October-November, 1915, 1690-1.

⁹⁷ "The Naval War Game," unsigned article, *The Navy*, June 1915, 142-3.

‘Invaders,’” and suggested that Congress would be forced to approve battlecruisers in the next navy bill.⁹⁸

Even *Proceedings* ended its battlecruiser interdict, publishing a number of pro-battlecruiser articles in the months after the exercises. The first, Commander Ralph Earle’s “Naval Scouts” in the July-August issue was probably written before the exercises, and was rather lukewarm in support, claiming that battlecruisers, while ideal scouts, “are probably outside the question for this country.”⁹⁹ In the November-December issue, however, the journal published three pro-battlecruiser articles. One of those three articles, Lieutenant R.A. Dawes’s “Battle Tactics,” was written before the war, but the latter two, Assistant Constructor Beirne Saunders Bullard’s “A Plea for the Battle-Cruiser,” and Commander Yates Stirling’s “The Arrival of the Battle-Cruiser” were undeniably written in 1915. Given the journal’s previous policy, it is impossible to explain away this cluster as chance. Given the prominence of *Proceedings* and the Naval Institute within the Navy (at the time Bradley Fiske was the president of the USNI), it is equally impossible to imagine that its editors were unaware of the content and scope of the Board’s proposals for the 1916 Navy bill, discussed at length below.

Stirling, who had been a member of the first Long Course, wrote an article that reflected some of the more overheated rhetoric concerning battlecruisers that was in vogue during the early years of the war. After all, apart from the Dardanelles bombardments, battlecruisers had been the only capital ships to see action, and outcomes of those actions—the *Goeben* chase, German raids on the English coast, Heligoland Bight, the Falklands,

⁹⁸ “Battle Cruisers won for ‘Invaders,’” Special to the New York Times, May 27, 1915, 7.

⁹⁹ Commander Ralph Earle, “Naval Scouts; Their Necessity, Utility, and Best Type,” *Proceedings*, July-August, 1915, 1104.

Dogger Bank—burnished the reputation of the type. As Stirling put it, “the naval lesson of the war [is that] . . . [t]he dreadnought battleship has passed away.” In its place, “[the battle-cruiser is the mistress of the sea, and he who commands the most powerful fleet of battle-cruisers commands the sea.”¹⁰⁰

Bullard’s piece, rather more restrained than Stirling’s, neatly reflected the outer limits of “acceptable” battlecruiser discussion within the Navy. Bullard argued that battlecruisers “should be nothing more than higher speed battleships” in fleet engagements, and while this is further than the General Board was willing to go, it was clearly an attitude shared by many in the Navy. Sims, for example, would show himself a partisan of this position in testimony before Congress in early 1916. Bullard also, however, pointed towards Dogger Bank and the Falklands, emphasizing the battlecruiser’s utility for “independent service,” more in keeping with the General Board-approved consensus forged before the war.¹⁰¹

At Newport, Lieutenant Commander H.E. Yarnell also weighed in for battlecruisers. Yarnell, a student in the Long Course class that began in July 1914, was clearly a coming man in the Navy (he spent the war years on Sims’s planning staff in London), and advocated for battlecruisers based on competition, rather than first principles. To Yarnell, the basis of American naval policy was that “[o]ur naval force must be such as to defeat our most probable opponent. . . . Japan.” To that end, “[i]f Japan builds battle cruisers . . . we must build the same, only a few more, and a little faster and more powerful.” Interestingly, Yarnell

¹⁰⁰ Commander Yates Stirling, “The Arrival of the Battle-Cruiser,” *Proceedings*, November-December, 1915, 1923-4.

¹⁰¹ Assistant Naval Constructor B.S. Bullard, “A Plea for the Battle-Cruiser,” *Proceedings*, November-December, 1915, 1902-1915.

was on the fence about their utility as a fast wing, pointing out that contemporary American range finders were useless even at 12,000 yards, dangerously close for battlecruisers.¹⁰²

More important than the press, *Proceedings*, and discussions at Newport, however, was the response of the Wilson Administration. The larger “Preparedness” campaign initiated by the government was certainly not a response to the naval exercises, but they, along with the course of the war, and the sinking of the ocean liner *Lusitania* in May 1915, contributed to a climate where a large navy was no longer unthinkable, even to a Democratic administration. The Wilson administration was not noted for its friendliness to naval interests; as recently as January 1915, Wilson had pressed for a one-battleship program in the cabinet.¹⁰³ In late July, however, Wilson informed Daniels that the Navy Department should prepare for a new, large, building program.¹⁰⁴ This request was quickly passed on to the Board, and six days later, the Board developed a new naval policy, committing the United States Navy to equal “the most powerful [fleet] maintained by another nation . . . not later than 1925.” Alongside that declaration, the Board discussed the addition of battlecruisers to the 1916 building program, which was approved with the assent of all present except Benson, the new CNO.¹⁰⁵ In October, Daniels clarified the scope of future construction, telling the Board to prepare a five-year, \$500 million program.¹⁰⁶ Two days later, the Board returned to Daniels with a program that called for the construction of six battlecruisers, ten battleships,

¹⁰² H.E. Yarnell, “Naval tactics,” May 30, 1915, RG 8, Box 107, Folder 2, NHC.

¹⁰³ Josephus Daniels Diary, January 22, 1915, Series 3, Folder 91, Josephus Daniels Papers, Southern Historical Collection, Wilson Library, University of North Carolina at Chapel Hill.

¹⁰⁴ Wilson to Daniels, July 21, 1915, *Woodrow Wilson Papers* (Washington: Library of Congress Manuscript Division, 1973), Series 4, Case #21.

¹⁰⁵ General Board Meeting, July 27, 1915 *Proceedings and Hearings of the General Board*, Roll 3, 199-200.

¹⁰⁶ General Board Meeting, October 7, 1915, *Proceedings and Hearings*, Roll 3, 295.

ten scouts and a host of other vessels.¹⁰⁷ Benson, again, tried to curb the battlecruisers in the program, submitted a resolution to that effect two days later, but again, he was outvoted by the rest of the Board, demonstrating the strict limits on the authority of his new, impressively-titled position.¹⁰⁸

Interestingly, the Board divided this \$500 million program into two parts: the construction needed to “balance the present seagoing fleet” and entirely new construction based on the new goal of naval supremacy by 1925. The ten battleships and two of the battlecruisers were provided for under the latter rationale, but four of the battlecruisers and four of the scouts were described by the Board as necessary for the functioning of the existing fleet, presumably making them a higher priority than the rest of the proposed new construction. The meeting minutes lack any sort of detailed account of the proceedings, but the “necessity” of four battlecruisers to accompany the Navy’s seventeen authorized dreadnought battleships is essentially identical to the General Board’s recommendation for a 4:1 battleship to battlecruiser ratio in their proposed 1912 building program.¹⁰⁹ If we accept the impossibility of building ½ of a battlecruiser, it also explains the additional two requested alongside the ten new battleships in the next planned phase of building.

To put it bluntly, the General Board’s six-battlecruiser program had nothing to do with a reappraisal of the battlecruiser type in light of wartime evidence, a misconception that is repeated throughout the relevant historical literature.¹¹⁰ The Great War certainly created an

¹⁰⁷ General Board Meeting, October 9, 1915, *Proceedings and Hearings*, Roll 3, 299-303.

¹⁰⁸ General Board Meeting, October 11, 1915, *Proceedings, and Hearings*, Roll 3, 304.

¹⁰⁹ General Board, “Building Program, 1913-1917,” September 25, 1912, RG 80, E 281, File 420-2, NARA Washington.

¹¹⁰ These problematic assertions span the entire historiography of the World War I era, from the 1930s to the present In *The Rise of American Naval Power* (Princeton UP, 1939), one of the earliest and most influential

environment where the Navy finally received “enough” money for both battlecruiser and battleship construction, but the request for six battlecruisers was merely the application of the 1912 formula to the 1915 fleet and the ten new battleships in the Board’s program.

Furthermore, the Board actually went out of its way to highlight the differences between foreign, especially British, battlecruiser practice and the nascent American battlecruiser doctrine.

Indeed, if the Board’s request for battlecruisers *was* based on the war’s experience, then the Board’s first set of battlecruiser specifications are very difficult to explain. The preliminary designs that had been submitted for the 1912 battlecruiser were based on one of Constructor Robinson’s 11” armor designs, but the new 1915 specifications from the Board had more in common with Robinson’s lighter 8” belt designs. The General Board asked for a 35-knot ship with ten 14” guns and only five inches of main belt armor.¹¹¹ By the Navy’s own calculations, this made the battlecruisers’ armor proof against 6” shells at best, the caliber of main battery found on light cruisers.¹¹² Five inches was about half the thickness of the main belt armor of the latest prewar British and German battlecruiser construction,

scholarly works to cover this process, Margaret and Harold Sprout make this error, which almost certainly influenced later authors, like Ernest Andrade (“The Battle Cruiser in the United States Navy,” *Military Affairs*, Vol. 44, No. 1) and Kenneth Hagan’s *This People’s Navy* (New York: Free Press, 1991). Neither Friedman, nor Baer’s *100 Years of Sea Power* (Stanford UP, 1994) make a real attempt to grapple with the origins of the American battlecruiser program (though Friedman correctly sees the U.S. Navy’s interest in battlecruisers stretching back at least a decade before 1915), although Baer implies, and Braisted’s *U.S. Navy in the Pacific, 1909-1922* argues, that battlecruisers were an afterthought in a bloated naval bill. McBride, in *Technological Change and the United States Navy* (Johns Hopkins UP, 2000) makes the rather curious assertion that the General Board expressed no interest in battlecruisers before 1914, to which the preceding chapters will, I hope, serve as an effective rebuttal. More recently, Trent Hone’s “High Speed Thoroughbreds,” in *Warship 2011* (London: Conway, 2011) and Dirk Bönker’s *Militarism in a Global Age* (Cornell UP, 2012) have respectively overrated the influence of the First World War and underplayed the Navy’s pre-World War I interest in the ships.

¹¹¹ General Board, “Battle Cruisers, 1917: Characteristics,” October 17, 1915, RG 80, E 281, File 420-6, NARA Washington.

¹¹² Bureaus of Construction & Repair, Steam Engineering, and Ordnance, “Capital Ships—Preliminary Design,” June 3, 1918, RG 80, Box 83, Piece C-34:4, 2.

suggesting very strongly that the General Board considered these ships more scouts than fast wing and, indeed, had taken those predilections to a new extreme. Likewise, the Board requested a 12,000-mile cruising range at 10 knots.¹¹³ Even though the U.S. Navy was long-legged compared to most others, the endurance was somewhat higher than that for American battleships, suggesting again that the battlecruisers were intended for operations independent from and in advance of the battle fleet.¹¹⁴

The battlecruiser mission was also borne out by the Board's annual construction program memo, written in late November. Noting that many American observers had been impressed by the performance of British battlecruisers in the war to date, the Board's letter took pains to note that "the particular course of the present war does not justify the prevalent exaggerated idea of their importance." Instead, the role of battlecruisers was "chiefly . . . to secure information . . . and break through a hostile screen," while protecting its own. Secondly, battlecruisers could be used to protect sea lanes, and launch torpedo attacks on enemy ships, though it is telling that in five paragraphs on battlecruisers the latter mission only warranted a single sentence.¹¹⁵ This set of missions was nearly identical to that proposed at the War College in 1911-12, and adopted by the General Board in late 1912. Tellingly, the Board did not suggest following the British lead in using the vessels as anti-battlecruiser specialists. In the United States, at least, the primary role of battlecruisers was to allow the

¹¹³ "Battle Cruisers, 1917."

¹¹⁴ See Friedman, *U.S. Battleships*, 438-42 for contemporary US battlecruiser designs. The figures are not entirely comparable—the battleship ranges are given at 12 knots—but it gives a sense of the extreme range required of all American capital ships. Compare the 12,000-mile standard to the *Lion*-class's range at 10 knots as well; about half that of the initial *Lexington* design, *Conway's All the World's Fighting Ships 1906-1921*, 29.

¹¹⁵ "Report of the General Board," November 9, 1915, in *Annual Reports of the Navy Department for the Fiscal year 1915* (Washington: Government Printing Office, 1916), 76.

battle fleet to do its war-winning job with greater efficiency and security, not to usurp those functions.

William Sims, on the other hand, took a position in advance of the Board, asserting a more urgent need, and proposing a more muscular role in the heart of battle for the ships. In March 1916, he told the House Naval Affairs Committee that “[o]ur great necessity now is for battle cruisers.”¹¹⁶ While Daniels and the Board saw Wilson’s blank check as the prelude to a dramatic expansion of the battle line, Sims went a good deal further and argued that battleship construction should be halted until the Navy had built “eight or nine battle cruisers” to support the fleet.¹¹⁷ Indeed, Sims unconsciously echoed Fisher in suggesting that the two battleships of the previous year’s program ought to be converted into battlecruisers, if possible.¹¹⁸ As one might expect with this aggressive stance, Sims conceptualized battlecruisers as decisive instruments of the fast wing in battle, rather than very capable scouts, telling the committee that the ships “have the power of battleships . . . speed and power and have got armor resistance, which is very considerable.”¹¹⁹

Oddly enough, Sims’s enthusiasm was not dimmed by a close study of the Falklands engagement. While the gunnery officers present at the battle focused on the breakdown and malfunctioning of ranging and gunlaying equipment, Sims, who had made his career on the strength of his gunnery expertise, focused on the issue of range. Like Jellicoe, Sims believed that decisive gunnery results were only achievable within maximum torpedo range, arguing

¹¹⁶ Testimony of William S. Sims before the House Committee on Naval Affairs, March 10, 1916, 2745.

¹¹⁷ Sims testimony, 2692

¹¹⁸ Sims testimony, 2745

¹¹⁹ Sims Testimony, 2700

for a battle range of about 10,000 yards.¹²⁰ At those ranges, talk of the “considerable” armor resistance of battlecruisers, even before Jutland, sounded rather out of place. Even from the United States, it was clear that *Lion* was seriously damaged, and *Blücher* near-fatally wounded at much longer ranges than 10,000 yards at Dogger Bank.

The Navy’s strategic elite, however, tended to agree with the Board’s more restrained approach, acknowledging the battlecruiser’s potential for the fast wing, but identifying its main role as scouting and screening. In June, 1916, the NWC held a conference on “tactical principles,” which concluded that while the ships could be used “for gun and torpedo fire in cooperation with battleships,” their main utility lay “[i]n the broader field of tactics wherein it merges into the strategic field.”¹²¹ The individual papers for the conference said much the same thing. Captain A.P. Niblack, an officer bound for high command, submitted a paper that agreed with the points made above, though he emphasized the raiding mission, which Sims and the Board had neglected to discuss.¹²² Commander Waldo Evans, one of the instructors, asserted that the ships “are built primarily more for strategic work,” although in battle they could contribute to the fast wing if necessary.¹²³

The near-unanimity expressed by the War College—usually the seat of intense debate—suggests something of the extent to which battlecruiser doctrine was a settled debate in the U.S. by mid-1916. Battlecruisers were primarily scouts, with a secondary mission of using their speed to perform the fast wing mission in battle, with a special emphasis on

¹²⁰ Sims Testimony, 2701.

¹²¹ NWC Conference on Tactical Principles, “Conclusions,” June 1916, RG 8, Box 107, Folder 4, NHC, 3.

¹²² Captain A.P. Niblack, “A Study in Fleet Naval Tactics; A proposed Battle Doctrine,” June 25, 1916, RG 8, Box 107, Folder 7, NHC.

¹²³ Cmdr. Waldo Evans, “Discussion and Deduction of a Battle Plan,” June 1916, RG 4, Box 1, Folder 18, NHC, 3-4.

torpedo attacks. Even Sims's rebutting of the General Board in front of Congress modified, rather than negated, this consensus; Sims's approach placed more emphasis on the tactical over the strategic, but his fellow officers agreed that *if* battlecruisers were used in a general engagement, their place would be outside of the line proper, making attacks on the opposing battle line. Oddly, the use of battlecruisers to counter enemy battlecruisers *in battle* does not seem to have been a terribly important part of these discussions, only blunting their effect as raiders, scouts, and screens.

As discussed earlier in this chapter and elsewhere, this nascent battlecruiser doctrine was the U.S. Navy's own. The debates in the United States over the ships from 1910-1916 bear little relation to similar discussions in Britain, Germany, and Japan. Apart from the secondary fast wing mission, one suspects that officers from those countries would have found American battlecruiser doctrine unrecognizable and, perhaps, overly cautious.

The *Courageous*-class cruisers were effectively the last act of the Churchill-Fisher Admiralty. Due to fallout from the joint operations at the Dardanelles, both men left their posts in late May; Fisher resigned on the 22nd, and Churchill was removed on the 25th.¹²⁴ As war leaders, the flaws of both men were magnified. Whatever their strengths, neither man was willing to go through the normal channels of administration. Both preferred to rely on their own counsel, or ad-hoc committees thrown together to rubber-stamp their actions. In

¹²⁴ Robert K. Massie, *Castles of Steel: Britain, Germany, and the Winning of the Great War at Sea* (New York: Ballantine, 2003), 483-91.

that sense, it is appropriate that the Dardanelles campaign—started when Churchill contacted Vice Admiral Carden behind the Admiralty Board’s back—brought both men down.

For his part, Fisher avoided these issues in the operational realm, with the possible exception of the successful Falklands expedition. Instead, Fisher indulged his autocratic instincts in the field of warship design, where he single-handedly laid down the parameters of five new battlecruisers. Without meaningful consultation, the *Renown* and *Courageous*-class warships reflected Fisher’s predilections, more than the needs of the service. The *Courageous*-class, especially, were hamstrung by the requirements for Fishers’ abortive Baltic campaign, and his insistence on building them in defiance of the government’s interdict against new capital ships.

Unsurprisingly, the ships built without meaningful outside input proved ill-suited for the sort of war Jellicoe and Beatty were fighting in the North Sea. Although the two commanders were happy to have more battlecruisers in the North Sea, increased armor was considered a must, both to counter German battlecruisers and to operate near the German battle fleet. Instead, *Renown* was designed with lighter armor than any battlecruiser since *Indefatigable*, and the *Courageous*-class somehow had even less. Likewise, gunnery issues led Jellicoe to request a fourth turret on the *Renowns*, to aid with fire control. This request was rebuffed and, indeed, *Courageous* and *Glorious* only had four guns in two turrets, while *Furious* was designed, beyond sense or reason, with two 18-inch guns in single turrets.

Compared to Britain, the situation in the United States was rather more harmonious. By 1915, pro-battlecruiser sentiment was so strong that the General Board was able to turn the 1915 Atlantic Fleet exercises into an elaborate advertisement for the class. Support for the Board’s position can be found in *Proceedings*, as well as testimony in late 1915/early

1916 in front of Congress. Although some officers, most notably Sims, supported a more robust role for battlecruisers, the U.S. Navy's initial foray into battlecruisers was rather less contentious than its dreadnought conversion.

The battlecruiser switch came too early for the Chief of Naval Operations or the new OpNav staff to play a role. Instead, the events of 1915 and 1916 represent the height of the War College's influence on warship design. The battlecruiser-as-scout idea, of course, originated in the War College. Beyond that, many of the key officers in the process all shared a War College background. Fiske, who led the charge on the 1915 exercises, was a War College graduate, as were seven of the nine General Board members who planned the 1915 exercises in March, and six of the eight who apparently voted in favor of battlecruisers in July.¹²⁵ Constructor Robinson's initial battlecruiser studies had also been discussed at the War College in 1912.

This background may have helped the U.S. Navy settle on a role and mission for its battlecruiser. Although the Board's 1915 design bore some similarities to Fisher's *Renown*, especially in speed and armor, the American design was the product of five years of debate and prototype designs, while *Renown* was largely the work of Fisher, acting alone. The General Board's design sacrificed armor for speed and firepower, for the scouting mission that was its explicit *raison d'être*, a mission that was intelligible to any American officer who paid attention to the intellectual side of his profession.

Renown and, especially, *Courageous* were designed to Fisher's pattern, in service of a role that other British officers neither comprehended nor shared. Unlike the American scouts and adjuncts, Fisher wanted his ships to play a war-winning role, in defiance of

¹²⁵ These figures were determined by cross-referencing the list of General Board members in the *Proceedings and Hearings* microfilm with the Naval War College roster in the Archivist's office at the NHC.

operational commanders who had their own, more conventional, ideas for the ships. Still, because of the administrative structure of the Royal Navy, Fisher's design vision won out over the explicit complaints of Admiral Jellicoe, and the "lessons" of the war to date.

CHAPTER 7: “PUT AGAINST BATTLESHIPS, THEY MUST EXPECT TO SUFFER”

The Fisher-Churchill axis proved disastrous for the Royal Navy. Though both possessed undoubted mental gifts, each required levelheaded advice to temper some of their wilder ideas. With the two of them filling the top posts in the Admiralty, and disinclined to listen to subordinates, such advice was not forthcoming. The two did, however, manage to avoid butting heads; each was allowed to pursue his fanciful schemes in peace. The result, as shown in the previous chapter, was disastrous. Before both men were removed in May 1915, Churchill’s Dardanelles misadventure and Fisher’s new battlecruisers had been imposed on an unwilling Navy.

In their stead, Prime Minister Asquith appointed Arthur Balfour, a former Prime Minister to the post of First Lord, and Admiral Henry B. Jackson as First Sea Lord. Both men were utterly unlike their predecessors. Balfour and Jackson took a decidedly phlegmatic approach to administration and leadership, avoiding the highs and the lows of Churchill and Fisher. Although Balfour exhibited “more than a hint of laziness” in the post, Jackson was a competent administrator. Under them, the machinery of the Admiralty began to function somewhat as advertised.¹

Although Jackson was hardly an inspired choice, he was well placed to run the Admiralty. Prior to his elevation, Jackson had been a member of Churchill’s War Staff Group and consequently had as much understanding of the naval war’s inner workings as anyone

¹ Malcom H. Murfett, “Admiral Sir Henry Bradwardine Jackson,” in *The First Sea Lords*, ed. Malcom H. Murfett (Westport, CT: Praegar, 1995), 91-93

outside of Churchill, Fisher, and Jellicoe. Jackson also came to the post with a background in administration and planning, having served as Chief of the War Staff in 1912-14, after a stint in command of the War College.² Under Jackson, the Naval Staff was used to greater effect, and the Admiralty Board restored to something of its earlier role of considering strategy and service policy. Altogether, his tenure was a marked improvement over what came before.³

In the United States, the situation appeared more placid. The previous chapter covered the war years in the U.S. up mid-1916. By that point, although the U.S. Navy's leadership paid close attention to the war, they had found nothing that contradicted their prewar notions of what a battlecruiser was for or how it was to be used. Instead, the U.S. Navy had an agreed-upon battlecruiser doctrine and had Administration support for a building program that included six of the ships.

Matters would change dramatically in both countries in the wake of the Battle of Jutland, fought from May 31-June 1 between the Grand Fleet and the High Seas Fleet. There had been naval battles during the first two years of the war, but Jutland was the first clash between *fleets*. As such, like Tsushima during the last major war, it provided a chance to test the doctrines and practices of prewar fleets. In that sense, the battle proved a disappointment. The opposing battle line were barely in contact, certainly not for enough time to suggest generalizable conclusions about naval tactics. The main theoretical takeaway was negative: perhaps modern fleets were too large for one commander to exercise effective control.

² C.I. Hamilton, *The Making of the Modern Admiralty: British Naval Policy-Making 1805-1927* (Cambridge, UK: Cambridge University Press, 2011); 228, 235-7.

³ For more on Jackson's term as First Sea Lord, see Chapter 5 of Nicholas Black's *The British Naval Staff in the First World War* (Woodbridge, UK: Boydell, 2009).

The most striking lesson of the battle, however, was the vulnerability of battlecruisers to swift destruction. The British and German battlecruiser formations bore the brunt of the fighting and four, three British and one German, were lost. The three British ships all succumbed to explosion, raising serious questions about British battlecruiser employment and design. In the wake of the battle, the Battle Cruiser Fleet and the Admiralty contemplated serious changes to ways battlecruisers were designed and used.

Similar questions were asked on the other side of the Atlantic, but in the in the nine months after the battle, the U.S. Navy's leadership found little wrong with American battlecruiser doctrine and design. Serious contemplation of changes would only come after the United States joined the war in April 1917, and American officers had the opportunity to access British documents and speak to their British counterparts. By the end of 1917, the U.S. Navy's battlecruiser consensus of mid-1916 would be just a memory.

A prime example of the new Admiralty in action was the design process for the Royal Navy's new capital ship, begun in mid-November, when the Board recommended the construction of at least one new battleship in the coming year.⁴ This was the first time in years that the Board, as a corporate body, had a serious impact on warship design.⁵ According to guidelines issued by the 3rd Sea Lord, F.C.T. Tudor, the goal was to create as ship as close as possible to the *Queen Elizabeths* "in attack or defence, and . . . far superior to

⁴ Hamilton, journal entry, November 13, 1915.

⁵ C.I. Hamilton, *Making of the Modern Admiralty*, 238-9.

her in defence against under-water attack as it is considered at present to be practicable.”⁶

Eustace D’Eyncourt, still the DNC, submitted a preliminary 26.5 knot design, based on the armor and firepower of the *Queen Elizabeths*.⁷ Unfortunately, D’Eyncourt’s first effort had a length of 800 feet and a beam of 104, rather larger than *Queen Elizabeth* in both dimensions, and too large for the berthing and repair facilities at RN dockyards.

Jackson, furthermore, was opposed to the new design. Citing cost, he noted the size issues and also faulted the design for its lack of horizontal protection, especially above magazines, and the narrowness of its main belt. In short, Jackson asked Tudor and D’Eyncourt to provide a lighter, shorter design, at the cost of some speed. It is possible that Jackson’s motivations may not have been entirely focused on the expense of the ship. In the same memorandum, he worried that a new paradigm of battleship design would “give our richer friends across the Atlantic a new idea, which they would be able to develop more rapidly than ourselves.” One class of 25-knot battleships, one presumes, could be written off as an experiment, but making it the new standard could spark an arms race.⁸

On January 6, D’Eyncourt and Tudor presented Jackson with a modified sketch design, “B” (the original November sketch being “A”) with ten feet less length and breadth and a 1,500 ton smaller displacement, purchased at the cost of 1.5-2 knots’ speed. Even those designs were too large for Jackson, who asked D’Eyncourt to work on designs “C1” and “C2,” 22-knot ships with major savings in weight, length, and horsepower.⁹ These four

⁶ Rear Admiral Frederick Charles Tudor to Admiralty Board, December 4, 1915, DEY/27/2.

⁷ Eustace Tennyson D’Eyncourt, letter to Tudor, “New Battleship Design (Evolved from War experience),” November 30, 1915, DEY/27/2, Caird Library, NMM.

⁸ Jackson to Tudor, December 1, 1915, DEY/27/2.

⁹ Tudor to Jackson, January 6, 1916, DEY/27/2.

designs were taken to the Sea Lords in a January 25 meeting. Although Hamilton, at least, was favorably impressed by the original 26.5-knot design, the sea lords asked D'Eyncourt and Tudor to develop a design with the underwater protection of the "A" design, and the speed of the *Queen Elizabeths*, a compromise design that was eventually referred to as "D."¹⁰

However, that compromise never came to fruition. Astoundingly, the Admiralty had not consulted Jellicoe on the subject of new construction until after they had seemingly settled on the "D" design. Asked for his opinion on the matter in early February, Jellicoe indicated that the Grand Fleet was in need of battlecruisers more than battleships, in light of alleged German construction along those lines.¹¹ Beatty concurred, expressing doubt that the BCF could handle its opposite number. Not only were the supposed monster German battlecruisers a danger to his command, but the three *Invincibles* had proven themselves "no better to us than battleships" in a battlecruiser fight, on account of their low speed, while *Repulse* and *Renown* were facing construction delays, and the "freak ships," of the *Courageous*-class were self-evidently useless for the task at hand.¹²

Faced with those opinions from the senior officers in the North Sea, the Board rapidly changed course, and asked D'Eyncourt to come up with a set of battlecruiser designs instead. D'Eyncourt produced six, the first three with eight 15" guns and the latter three with four, six, and eight 18" guns respectively, based on Jellicoe's desire for a larger gun. However, these last three designs were deemed impractically heavy, and the Board settled on the third design, a 32-knot ship. The armor, though lighter than that of period battleships, was much

¹⁰ Hamilton journal, January 25, 1916, HTN/106

¹¹ Sumida, *In Defence of Naval Supremacy*, 294.

¹² Beatty to H.H. Asquith and Jellicoe, February 3, 1916, *Jellicoe Papers*, Vol. I, 207-10.

thicker than on Fisher's five wartime battlecruisers: an 8" belt and 10" protection for the turrets and conning tower.¹³ The Board approved the new design on March 6, and on March 30, they agreed to build four.¹⁴ Ironically, the final battlecruiser design ran roughshod over Jackson's concerns about size, cost, and, to some extent, novelty. The First Sea Lord had blanched at a 800' battleship, but the new battlecruisers—referred to as the *Hood*-class or Admiral-class—were 810 feet long and cost 5.6 million pounds, more than twice as much as the 2.2 million pound *Tiger* and 2.4 million pound *Queen Elizabeth*.¹⁵

However, *Hood* was at least two years away from entering the fleet. In the meantime, Beatty and his subordinates were unhappy with the fleet at their disposal and continued their earlier efforts to have the *Queen Elizabeths* assigned to the BCF. On February 18, 1916, Rear Admiral Osmond Brock, the commander of the 1st BCS, argued for a swap of the 5th Battle Squadron (the *Queen Elizabeths*) for the 3rd BCS between the BCF and the High Seas Fleet. The battleships would stiffen the spine of the battlecruiser fleet, while the older battlecruisers could serve as the Grand Fleet's fast wing just as well as the fast battleships.¹⁶ The implications of that statement are interesting. As we have seen, Jellicoe certainly assumed that the role of the BCF in battle was to fulfill the fast wing mission, but here one of the BCF's senior officers implied that the Grand Fleet's fast wing needed to be found within the fleet at Scapa Flow.

The next day William Pakenham, 2nd BCS commander, extended the argument further. Since the BCF was "the most important factor in command of the sea," Pakenham

¹³ John Roberts, *Battlecruisers* (Annapolis, MD: Naval Institute Press, 1997), 57-9.

¹⁴ Hamilton diary, March 6 and 30, 1916, HTN/106.

¹⁵ D'Eyncourt note, [1920], DEY/27/2.

¹⁶ Rear Admiral Osmond Brock to Beatty, February 18, 1916, *Beatty Papers*, Vol. I, 286-8.

believed that they should receive the *Queen Elizabeths* to increase its chances of survival.¹⁷ One might be forgiven for wondering how 25-knot battleships would help the BCF chase down 28+ knot battlecruisers, but Pakenham was concerned that if the German battlecruisers put to sea in company with the German battle line, the BCF could be drawn into a trap from which it would have been impossible to escape. The addition of the fast battleships would, he argued, allow the BCF to disengage from such an action, the heavily armored battleships covering the retreat of the battlecruisers.¹⁸ Underlying both of these letters was a profound disappointment with the material available. As Pakenham put it, “six of the British [battlecruisers] have little armour protection, and . . . even the best protected have armour of less thickness than the ‘Moltke,’ possibly even the ‘Von der Tann,’” highlighting again the extent to which British design and practice had diverged even before the war. To make matters worse, of course, *Renown* and *Repulse* only exacerbated the armor issue (Pakenham’s letter did not even bother discussing the “freaks”).¹⁹ By early 1916 the frailties of the *Renowns* were much-discussed in the Grand Fleet, Balfour’s naval secretary telling Roger Keyes in April that the ships were “rather jeered at in the Grand Fleet . . . [w]e don’t know yet what ‘Renowns’ are to do.”²⁰

Given the state of the material, though, it is worth mentioning again that the mismatch between the BCF’s strategy and material was a two way street. Pakenham’s letter highlighted the inferior armor protection of prewar British battlecruisers, a weakness that was known, and discussed at length before the war. Yet, neither letter suggests a change in the BCF’s

¹⁷ Rear Admiral W.C. Pakenham to Beatty, February 19, 1916, ADM 137/2134, TNA, Kew.

¹⁸ Pakenham to Beatty, February 19, 1916.

¹⁹ Pakenham to Beatty, February 19, 1916.

²⁰ Bartolome to Keyes, April 13, 1916, *Keyes Papers*, Volume I, 349.

mission or tactics. Throughout his term in command of the 1st BCS and BCF Beatty had been given an unusual freedom to define his own mission, and had settled on the counter-battlecruiser mission well before war. Despite strong wartime evidence suggesting that his ships were simply incapable of annihilating their German opposite numbers, Beatty does not appear to have reconsidered his squadron's mission. To that end, he passed along Pakenham's letter to Jellicoe with an endorsement that said, in part, that the *Queen Elizabeths* of the 5th Battle Squadron would "be in a position to afford support to my Fleet in secondary operations, giving us a definite superiority over anything less than the High Sea Fleet." He also assured Jellicoe that if the 5th BS were attached to the BCF, they "should yet be available to assume the position assign to them in your Battle Orders," in the event of contact with the High Seas Fleet.²¹

Jellicoe immediately rejected the idea, reminding Beatty again that the *Queen Elizabeths* were not fast enough for service with the BCF. Even if they were, the fast battleships were certainly not fast enough for the newer, faster, German battlecruisers that both men were concerned about. Essentially, the 5th BS, if released to the BCF, ran the risk of being left behind in an action, like the slower battlecruisers at Dogger Bank. Jellicoe did admit that he agreed with his subordinate on the material problems with the BCF, but placed the blame squarely on the Admiralty for discontinuing battlecruiser construction, and interesting claim to make, considering that Beatty had been Churchill's naval secretary before taking up command of the 1st BCS.²²

²¹ Beatty to Jellicoe, February 21, 1916, ADM 137/2134.

²² Jellicoe to Beatty, February 24, 1916, *Beatty Papers*, Vol. I, 295-6.

His second response to Beatty's request, sent to Jackson in London, is rather more illuminating, focusing on his and Beatty's incompatible views on battlecruisers. Jellicoe's primary concern was that "the stronger I make Beatty the greater is the temptation for him to get involved in an independent action," a rather prescient claim, given Beatty's future actions at Jutland.²³ Although Beatty appeared functionally independent, being stationed apart from the rest of the Grand Fleet, the BCF was *not* an independent formation, but an integral part of the Grand Fleet, with a role to play as the fast wing to the battle line, rather than taking on the German fleet by itself, and then running away. Beatty's independence raised a serious concern in Jellicoe's mind that his subordinate would start a battle, and then fail to link up with the British battleships, leaving the Grand Fleet with no fast battlecruisers or fast battleships. Indeed, giving the BCF the 5th BS only made such a scenario more likely; "[t]hey are . . . only useful as a force on which to fall back if he meets the High Sea Fleet. He can equally well fall back on me," ensuring a concentration of British capital ships when action came.²⁴

This debate continued through the spring. In mid-May, Jackson met with Beatty and Jellicoe to discuss moving some elements of the Grand Fleet south to Rosyth to aid the BCF in responding to German raids. This support was to take the form of the 1st or 2nd Battle Squadrons; dreadnought battleships, but not the 5th BS, which was to remain with Jellicoe. However, Beatty did receive permission for temporary control over the 5th BS, while the 3rd BCS, the oldest battlecruisers in the RN, took firing practice in Scapa Flow.²⁵ As it

²³ Jellicoe to Jackson, March 5, 1916. *Jellicoe Papers*, Vol. I, 225-6.

²⁴ Jellicoe to Jackson, March 5, 1916. Jellicoe did not mention it in this letter, but it is difficult to see the utility of "falling back" onto the 5th BS if confronted with the High Seas Fleet.

²⁵ Hamilton Journal, May 15, 1916, HTN/106.

happened, this was the situation when the entire Grand Fleet sortied on the evening of May 30, in response to the High Seas Fleet leaving harbor for a raid.

This time, the two fleets found each other, and the subsequent battle of Jutland was the largest naval engagement of the war. Although its outcome was tactically indecisive, with the British suffering more losses, but maintaining the tactical initiative, in strategic terms it merely served to confirm the existing order in the North Sea: the Grand Fleet remained stronger than the High Seas Fleet, preventing it from reaching the open ocean. As in the other naval battles of the war, the British battlecruisers were in the thick of the fighting, and three—*Invincible*, *Indefatigable*, and *Queen Mary*—blew up with the loss of nearly all hands, although one German battlecruiser, *Lützow* was scuttled after the battle.²⁶

The disposition of the British forces reflected both the distance between Scapa Flow and the Firth of Forth, and the Admiralty's understandable concern about the danger of raids. Indeed, although the Admiralty was aware that the entire High Seas Fleet was out of harbor, they were not aware that it was sailing in support of the 1st Scouting Group's raid. As a result, the BCF was sixty miles to the south of the Grand Fleet, in a position to fix the

²⁶ The last thing the world needs is another lengthy account of Jutland, which has been discussed in the historical literature beyond the point of exhaustion. To that end, the account here is deliberately brief. A complete survey of the literature would require its own book, but some discussion of the historiography is in order. A number of the participants on both sides discussed the battle in their memoirs, most notably Jellicoe and Chatfield on the British side and Georg von Hase, a gunnery officer aboard the battlecruiser *Derfflinger* on the German. In the immediate postwar era, the battle became a political football between supporters of Jellicoe and Beatty (promoted to First Sea Lord after the war), especially when the latter's staff released the *Naval Staff Appreciation of Jutland*, a naked attempt to shift blame for the outcome off Beatty. Jellicoe's camp, which most contemporary historians favor, also had the benefit of superior writers. Two of the better books to come out of this period are the third volume of Julian Corbett's *Naval Operations*, and Reginald Bacon's rather intemperate *The Jutland Scandal*. The third volume of Marder's *From the Dreadnought to Scapa Flow* remains a very good, detailed, narrative of the battle, though many of his conclusions have been superseded by subsequent research. N.J.M. Campbell's *Jutland: An Analysis of the Fighting* and the relevant chapters of Massie's *Castles of Steel* probably provide the best recent accounts of the battle itself, Massie's being more readable and Campbell's frighteningly thorough. While not all of its conclusions have been adopted by other historians, Andrew Gordon's *The Rules of the Game: Jutland and British Naval Command*, does a wonderful job of situating many of the British command and signaling errors in the context of the Royal Navy's culture and development over the previous decades.

German battlecruisers and give the Grand Fleet time to get between it and the British coast, but too far for the Grand Fleet to offer effective support.²⁷

When the German battlecruisers were spotted in mid-afternoon, Beatty gave chase, while the German ships fell back towards their battleship support. During this “run to the south,” *Indefatigable* and *Queen Mary* were sunk in the space of about 45 minutes, both ships succumbing to dramatic explosions. Soon after *Queen Mary* sank, the BCF came across the entire German battle fleet and turned back to the north, towards the Grand Fleet. Due to a signaling mishap, the 5th BS continued steaming south for some time and took a battering from the van of the High Seas Fleet and the German battlecruisers the entire way back to the Grand Fleet.²⁸

Worse, the entire BCF neglected to tell Jellicoe about the German fleet, leaving the Grand Fleet entirely in the dark as to German dispositions.²⁹ The first unit of the Grand Fleet to spot the BCF was the 3rd BCS. Though tied to the Grand Fleet, it took up station ahead of the BCF and fired on the battlecruisers in the German van, from ranges as close as 9,000 yards, before *Invincible*, with the squadron commander, Rear Admiral Horace Hood, was itself blown up less than a half hour after joining the action. By this point, the Grand Fleet had completed its deployment, and had begun firing on the German battlecruisers and battleships. Faced with the entire Grand Fleet, the German commander, Reinhard Scheer,

²⁷ Corbett, *Naval Operations*, Vol. III (London: Longmans, Green, & Co., 1923), 325-6.

²⁸ Corbett, *Naval Operations*, Vol. III, 340-5.

²⁹ Marder, *From the Dreadnought to Scapa Flow, Volume III: Jutland and After* (London: Oxford UP, 1966), 77.

turned his fleet around, and was able to escape to Germany in the night, although there were several narrow escapes along the way.³⁰

After the battle, debate and concern in Britain centered on the loss of the three battlecruisers, usually blamed on their light armor.³¹ Nicholas Lambert has rather conclusively settled the debate over how the *Indefatigable*, *Queen Mary*, and *Invincible* sank; the matter had more to do with improperly handled cordite and deliberate sabotaging of anti-flash protection than faulty armor. In effect, the turret and barbette armor of the battlecruisers failed to keep out ordnance it was not designed to keep out, and negligence turned bad situations into disasters.³² It is worth reiterating, though, that British battlecruiser armor, especially in the older “I” ships was unequal to the demands of fleet battle. HMS *Defence*, a *Minotaur*-class armored cruiser with near-identical armor protection to *Invincible*, was sunk by a magazine explosion that appears to have had nothing to do with the turrets. *Warrior*, a slightly older cruiser, was heavily battered by German battlecruisers, and abandoned to founder the next day.³³

Heavier armor, however, would have mitigated the cordite and anti-flash situations by keeping German shells out of British turrets. The 5th BS, for example, was under sustained fire for much longer than any battlecruiser, suffering a total of 28 hits from heavy shells.³⁴

³⁰ Corbett, *Naval Operations*, Vol. III, 359-87.

³¹ Naturally, the tactics utilized by Beatty and Jellicoe were also subject to a great deal of scrutiny. Except where discussed below, it is, however, doubtful that these debates had a measurable impact on British battlecruiser *policy* or *design* going forwards.

³² Nicholas A. Lambert, “‘Our Bloody Ships’ or ‘Our Bloody System’? Jutland and the Loss of the Battlecruisers, 1916,” *Journal of Military History*, Vol. 62, No. 1, 29-55.

³³ Campbell, *Jutland*, 169-82.

³⁴ Campbell, *Jutland*, 349.

None of these strikes caused anything close to the damage suffered to the BCF, which lost three ships, and nearly a fourth. Overall, it does not seem as if British armor thicker than 9” was penetrated by German shells.³⁵ Beatty’s claim that British “methods of ships construction are seriously at fault,” went too far, but, if nothing else, the immediate attention paid to armor can be seen as a belated admission that battlecruiser design and practice had drifted dangerously far apart, with lightly-armored ships thrown into the thick of fleet actions.³⁶ More importantly, the armor issue dominated both the “lessons” that the Royal Navy took from the battle, and the information given to their American allies after April 1917.

Unsurprisingly, one of the strongest responses came from the officers of the BCF. Immediately after the battle, Beatty appointed a series of committees to examine the battle and its lessons. The “Committee on Construction of Battle Cruisers,” chaired by Pakenham, concluded by mid-June that “British battle cruisers, whether in service or about to be commissioned, are unequal to the duties assigned to them,” on account of their thin armor.³⁷ Even taking into account that this body was invested in placing blame on battlecruiser design (rather than their ammunition-handling practices), the committee’s judgment here is hard to rebut. If Beatty’s use of the ships under his command can be taken as the BCF’s “duties,” a fair reading of his opinions stretching back to mid-1913, their armor was a liability. The prewar designs in the BCF were simply not designed to stand the punishment of mid-range fire from other capital ships for extended periods of time, and the five forthcoming

³⁵ Campbell, *Jutland*, 60-78 and 124-34.

³⁶ Beatty to Jellicoe, July 14, 1916, ADM 137/2134, TNA, 503.

³⁷ Battle Cruiser Fleet Committee on Construction of Battle Cruisers to Beatty, June 18, 1916, ADM 137/2134, 530.

battlecruisers were even more lacking in that regard. Still, it is shocking to see a panel of BCF officers tacitly admit that their formation was unable to perform its mission, even if they did blame technical factors beyond their control.

Their proposed solution shows how much the battle affected British naval opinion. The committee recommended that the Royal Navy cease battlecruiser construction altogether and in its place build fast battleships, on the model of *Queen Elizabeth*, but with “higher speed, greater protection and greater offensive power.”³⁸ Although it was too late for the five battlecruisers begun under Fisher’s watch, the committee, after consulting with D’Eyncourt, also called for a dramatic thickening of the armor on the Admiral-class battlecruisers, to about the standard of the *Queen Elizabeths*.³⁹

The battle also brought up larger issues of Grand Fleet cooperation and coordination. Many observers noted the disconnect between Beatty’s battlecruisers and the main fleet. As Richmond put it on June 4:

A Battle Fleet 60 miles astern of the Cruiser Squadron—that is to say, our main Fleet divided into two parts out of supporting distance of each other . . . by nearly 2 hours’ steaming. The mathematician with his rule & compass of course says there is no danger. They are more numerous than the enemy battle cruisers & have the legs of the battles & can avoid them. But this action shews [sic] how wrong the mathematician . . . may be.⁴⁰

As we have seen, Jellicoe began the war wanting to keep his battlecruisers close enough to deploy with the main fleet—recall that in the August 1914 Grand Fleet sweep of the North Sea, Beatty’s squadron was stationed only fifteen miles ahead of the battleships. By 1916, this distance had quadrupled. Part of the blame can be laid at the feet of the redeployment of

³⁸ Construction Committee to Beatty, June 18, 1916, 530.

³⁹ Construction Committee to Beatty, June 23, 1916, 533.

⁴⁰ Richmond, June 4, 1916, *Portrait of an Admiral*, 213-4.

the Grand Fleet's battlecruisers to Rosyth, but an equal share must undoubtedly be given to Beatty's seeming independence, exacerbated by his fixation on sinking German battlecruisers rather than finding the German fleet.

There was much to discuss when the Admiralty Board met with Jellicoe and Beatty in late June. The conference reached a firm agreement to strengthen the armor in the *Repulse* and *Glorious* classes before they would be allowed to join the fleet. Indeed, the Admiralty would later determine that the latter three ships were to be classified as light cruisers and placed in the light cruiser squadrons attached to the BCF, rather than placed with their heavier cousins.⁴¹ Jellicoe also suggested that Fisher's battlecruisers would be admirably suited "to obtain a position of torpedo advantage," over German ships, a tacit admission that they were incapable of engaging the same ships in a gunnery duel.⁴²

However, Jellicoe and Beatty were at odds concerning the fate of the 5th BS and the shape of future battlecruiser deployment. According to Jellicoe, the conference with the Board determined that "the battle-cruisers should not be advanced so far from the support of the Battle Fleet as had been customary in the past." If a raid did come, necessitating an independent BCF sortie, the Admiralty Board would give Beatty and Jellicoe very specific orders about how far from support they were allowed to range. At all times, the BCF was to avoid confrontation with a superior German fleet.⁴³

When reminded of the conference a month later, Beatty petulantly asked if "superiority of construction" were a factor in determining a superior foe as "[t]here is the

⁴¹ Admiralty to Beatty, August 3, 1916, ADM 137/2134, 543.

⁴² Jellicoe to Admiralty, June 29, 1916, *Jellicoe Papers*, Vol. II, 20-24.

⁴³ Jellicoe to Admiralty, June 29, 1916, 20-4.

unfortunate fact that our ships blow up after only a short period of punishment, whereas the enemy's ships never do." He also questioned Jellicoe and the Admiralty's understanding that the conference had arrived at new battlecruiser procedure, which was missing in his personal notes from the conference.⁴⁴ Beatty believed that these instructions fettered his decision-making capacity, bringing up the specter of Troubridge during the *Goeben* chase. More substantively, he took issue with the underpinnings of the new instructions, seeing them as a too-cautious blueprint for withdrawal rather than helping to "maintain touch with a superior force, and draw the enemy towards our Grand Fleet."⁴⁵

Jellicoe's response, sent to the Admiralty, again expressed his frustration over his subordinate's failure to appreciate his position in the chain of command and the "real" role of the battlecruisers:

Any misconception existing in the mind of the Vice-Admiral may to some extent be due to the use of the term 'Battle-Cruiser Fleet' to describe the force under his command. This nomenclature may be taken to imply that it is a force distinct from, and not an adjunct to, the Battle Fleet and that, owing to its advanced position, it is expected to fulfill the role of a fast battle squadron and not that of a powerful scouting force possessing a speed which enables it to accept or refuse action with an enemy possessing no force of equal power which can compel it to accept action.⁴⁶

Leaving aside this extract's insights into Jellicoe's conception of naval warfare (Beatty, of course, would have argued that no admiral in his position could be *compelled* to fight, seeing as it was the *raison d'être* of a navy), it highlights his change of opinion about the Grand Fleet's battlecruisers. Earlier, of course, he had expressed similar exasperation with Beatty's tendency to freelance, but portrayed it as a risk to the Grand Fleet's merger before battle and

⁴⁴ Beatty, Conference Notes, June 27, 1916, *Beatty Papers*, Vol. I, 367.

⁴⁵ Beatty to Jellicoe, July 27, 1916, *Jellicoe Papers*, Vol. II, 31-3.

⁴⁶ Jellicoe to Admiralty, July 31, 1916, *Jellicoe Papers*, Vol. II, 35.

the BCF's critical fast wing role. Here, Jellicoe had switched to calling the battlecruisers a "scouting force," a clear response to the chastening experience of Jutland, and an early sign that he was moving away from his previous battlecruiser advocacy.

Beatty was evidently under the impression that the 5th BS had been permanently attached to him after the battle, presumably to make up numbers.⁴⁷ When it became clear at the conference that this was not the case, he continued his struggle to get the fast battleships under his command throughout the summer. Interestingly, Beatty initially justified his request using Jellicoe's earlier attachment to the BCF as a fast wing, claiming that the 5th BS would allow the BCF "to keep touch with the head of the enemy's line and administer severe punishment while doing so," although he did not explain why the 5th BS could not perform that same role if attached to the Grand Fleet's battleships.⁴⁸ This request, and another one made in August, were rejected by Jellicoe and the Admiralty.

The Board, Jellicoe, and Beatty were all, however, united in their opinion that the Admiral-class battlecruisers required a significant redesign. By the end of August 1916, D'Eyncourt returned to the Board with a design that sacrificed two knots of speed in exchange for more armor. The main belts were thickened from 8" to 12", the barbettes from 9" to 12", and the deck armor over the magazines greatly strengthened. On the whole, the new design displaced about 3,000 more tons than the pre-Jutland design, consisting almost entirely of expanded armor protection.⁴⁹ Initially the redesign was intended for the last three

⁴⁷ Beatty Conference Notes, June 26, 1916, 367.

⁴⁸ Beatty to Jellicoe, July 27, 1916, 32.

⁴⁹ Interestingly, Jellicoe felt that the new design was still too light, suggesting in November that the side and deck armor required still more strengthening. ADM 1/9210, Kew.

vessels of the class, but the redesign was quickly applied to the under-construction *Hood* as well.⁵⁰

Although there was some brief discussion of whether or not the new design constituted a “fast battleship,” the redesign proved to be the final wartime word on battlecruiser design in Britain.⁵¹ Despite discouraging gunnery issues and the disasters at Jutland, the Royal Navy maintained its desire for battlecruisers, with perhaps less ardor than before. Tellingly, as the Navy moved into 1917, the only new capital ship construction on the docket remained the Admiral-class battlecruisers.

This was the situation at the end of 1916, and the one facing the Royal Navy when the United States entered the war in April 1917. The Admiralty quickly made the decision to be generous with advice and information with their new cobelligerent (far more generous, in fact, than they were with their longstanding Japanese allies). The information given reflected this new state of affairs. Although the RN was not officially willing to call the Admiral-class “fast battleships” yet, it is clear that they were viewed as something more than the standard sort of battlecruiser, a paradigm that the British had soured on.

In the United States, news of Jutland came just as Congress was determining the final size and shape of the bill. The Navy’s united front in favor of battlecruisers in House

⁵⁰ “Design of Battle-Cruisers,” August-September 1916, ADM 1/9209, Kew.

⁵¹ D’Eyncourt’s initial table of specifications for the redesign had called them battleships, although 3rd Sea Lord Tudor quickly shot that idea down, arguing that subsequent battleship designs would have far more armor than *Hood* or, for that matter, *Queen Elizabeth*. ADM 1/9209.

testimony evidently worked too well, and the version of the bill that passed the House called for the construction of five battlecruisers and no battleships. Although the House was controlled by Wilson's fellow Democrats, they presumably believed the claims of the Navy Department that battlecruisers were the key gap in the Navy's force structure, and the missing element in the fleet's "balance." The Senate, on the other hand, also controlled by the Democrats, wrote an Administration-friendly version of the bill on June 30, authorizing ten battleships and six battlecruisers.⁵²

Combined with the sobering news from the North Sea, one might imagine that the Navy was rethinking their commitment to battlecruisers. After all, the Navy's adoption of battlecruisers was primarily because of the role they could play in scouting and the early stages of major fleet actions, and here was one such scenario in which battlecruisers had evinced a shocking vulnerability to gunfire. Even the most ardent American critics of battlecruisers had never imagined a scenario quite like one exploding from a single salvo, let alone three such incidents in the same battle.⁵³ Considering the adamant opposition to battlecruisers from the Navy's senior leadership as recently as 1910 and the fact that no work had started by June 1916, the scene seem set for a comprehensive rethink.

Nothing of the sort happened, because the Navy's senior leadership already viewed battlecruisers as very much subordinate to battleships, and not suitable for the uses to which Jellicoe and Beatty put them. The ailing Admiral Dewey (or an aide) laid out the "official"

⁵² Senator Claude Swanson, Naval Appropriation Bill, 1917, June 30, 1916, Senate Report No. 575, 64th Congress, 1st Session.

⁵³ Indeed, in the war games developed at the Naval War College for training and strategic planning, there were no provisions for the sort of catastrophic destruction that befell the British battlecruisers at Jutland. The prevailing rules granted battlecruisers the same resiliency as pre-dreadnought battleships; twice that of standard armored cruisers. In no situation could a ship of that strength be sunk with a single salvo. Naval War College, *Rules for the Conduct of the War Games* (Washington, DC: Government Printing Office, 1905) and "The Tactical Exercises," *1911 Summer Conference, Volume IV*, RG 12, NHC.

view of the battle in a July article for *Sea Power*, the Navy League's new journal. To Dewey, the battle confirmed the U.S. Navy's longstanding opinion that "in the final issue it is the dreadnought [battleship] which means victory or defeat." At the same time, he asserted that "[t]he usefulness of the battle cruiser or the scout cruiser has not been disproved, but the inadvisability of depending upon fast lightly-armored vessels in a clash in which dreadnaughts [sic] are engaged is shown." The lighter ships had an important role to play, he argued, but popular agitation for battlecruisers to *replace* battleships was seriously misguided.⁵⁴

As it happened, the battle made very little immediate impact on American policy. Congress passed a final version of the bill in August based on the more expansive Senate version, and a comprehensive rethink of the battlecruiser idea never seems to have taken place. There is one document in the Office of the Secretary of the Navy's files warning against the light armor of the American design, and suggesting a redesign reminiscent of *Hood's*, but on the whole, the Navy's leadership seemed happy with both their battlecruiser doctrine and their particular battlecruiser design.⁵⁵

This contentment remained even after more detail emerged concerning Jutland. Writing in the *New York Herald* in late 1916, Sims placed the blame for the battlecruiser disasters squarely on "the attack of a superior force (German battleships) by a greatly inferior force (British battle cruisers)." Nothing from the battle, he claimed, should detract from the U.S. Navy's need for battlecruisers, and he restated the Navy's favorite doomsday scenario

⁵⁴ Admiral George Dewey, "Lessons of Skagerrack," *Sea Power: The Nation's Defense*, Vol. 1, No. 2 (July 1916), 7-10, 35. Dewey's piece also inadvertently exposed the lack of reliable information on the battle in the early summer, his account placing the lost *Invincible* with the BCF in the early stages of the battle.

⁵⁵ Lt.Cmdr. H.C. Dinger to Secretary of the Navy, "Comment and suggestions as to characteristics of Battle Cruisers for U.S. Navy," September 1, 1916, RG 80, E 19, Piece 28645-9, NARA Washington.

of a hostile fleet arrayed against the Eastern Seaboard. Indeed, one of Sims's key takeaways from the battle was "the extraordinary resistance battle cruisers can sustain and the extraordinary amount of damage they can inflict, even against battleships." Still, he conceded that battlecruisers "must suffer" when sent against battleships by themselves. On the whole, Sims's article set the tone for discussion of the ships in the months leading up to American entry into the war: battlecruisers remained a critical part of any well-balanced fleet, and a gaping hole in American capabilities.⁵⁶

Both Sims and the Board—in the person of Rear Admiral Charles Badger, deputizing for Dewey during the latter's final illness—had the opportunity to recapitulate these arguments in front of Congress in December, 1916. In front of the House Naval Committee, Sims reaffirmed his belief that battlecruisers could perform the fast wing mission, arguing that at long ranges both types of capital ship were equally vulnerable to plunging fire and, at any rate, battlecruisers would be deployed across the head of an enemy column, masking most of their fire. He also took time to highlight the utility of battlecruisers in the scouting mission, which he had comparatively neglected in his earlier newspaper article.⁵⁷

Badger, on the other hand, presented the more modest case for battlecruisers that the General Board had made in 1915 and early 1916. Avoiding the topic of Jutland, Badger contended that battlecruisers were "information-gathering" vessels, "a backer up of the scouting line," not a ship intended for the thick of battle. Their great size and firepower were designed more for use against foreign battlecruisers than battleships. These "special ship[s]"

⁵⁶ Sims, reprint of *New York Herald* article, *Proceedings*, November-December 1916, 2053-4.

⁵⁷ House Committee on Naval Affairs, "Statement of Capt. William S. Sims, United States Navy," December 19, 1916.

for special duties,” were a necessity in modern warfare, but only to fill a narrow, though important, strategic niche.⁵⁸

The evidence suggests, however, that Badger’s statement misled Congress as to the full extent of the Board’s battlecruiser plans. Some sense of the General Board’s feelings on the vessels can be seen in a note sent to Daniels on the possibility of war with Japan in early 1917. Although Badger had claimed that the U.S. Navy desired battlecruisers only because other powers had them, the General Board’s plans for Japan suggested a utility independent of Japanese ships. The Board wanted another six battlecruisers under construction by mid-1918, rather a lot of overkill against a Japanese Navy with only 4 battlecruisers. With twelve battlecruisers, the U.S. Navy would be able to keep six as scouts with the main fleet and use the other six, along with 18 large destroyers, as a “raiding force,” to “seize [Japanese] outlying possessions . . . and operate against his . . . forces that may attempt to base in those islands.”⁵⁹ An analysis from Captain H.P. Huse at the Naval War College agreed. Battlecruisers, “an essential part of the fleet,” were unsuccessful at Jutland but of immense “value to use in the broad stretches of the Atlantic and Pacific Oceans. It cannot supersede the battleship, but it is indispensable in protecting our own scouting line or in breaking up the scouting line of the enemy.”⁶⁰

Those documents give a sense of what American officers meant when they discussed battlecruisers and “distantial” operations. A raiding force of six battlecruisers and eighteen destroyers is rather more robust than, say, the Royal Navy’s prewar “fleet units” or even the

⁵⁸ House Committee on Naval Affairs, “Statements of Rear Admiral Charles J. Badger, Retired, and Rear Admiral F.F. Fletcher, Members of the General Board of the Navy,” December 8, 1916.

⁵⁹ General Board to Daniels, January 15, 1917.

⁶⁰ Captain H.P. Huse, memorandum, January 8, 1917, Piece C-34-47, Box 83, RG 80, NARA Washington.

1914 Falklands deployment. While their British counterparts had spent the time since Jutland discussing ways to keep the BCF within supporting distance of the Grand Fleet, the U.S. Navy's leadership was still devoted to a vision of warfare that, given distances in the Pacific, could place some battlecruisers thousands of miles away from battleship support. Clearly, the Americans were more confident in the ability of their battlecruisers to run away from the Japanese battle fleet if encountered, a not-unreasonable confidence borne from their seven-knot speed advantage over the *Kongos*. In the unlikely event of a fight with the Japanese battlecruisers, a squadron of six *Lexingtons* against the four *Kongos* would mount sixty 14" guns against thirty-two.⁶¹ While the *Kongos* were better armored, the war had shown that their armor protection, on a par with the *Lion*-class battlecruisers and *Tiger* was insufficient to keep out 14" ordnance at long ranges.

Although there was some dissent over the armor protection of the new battlecruisers inside the U.S. Navy before April 1917, the most pressing critique of the design concerned its armament, some believing that they would be better served with 16" guns, even at the cost of losing a two-gun turret to maintain speed and weight. Within the Navy, this criticism came from the Bureaus of Ordnance and Construction & Repair, both of which wrote to Benson, asking for a switch to a 16" main battery in early 1917, although the issue had been percolating since the Board had "finalized" the battlecruiser design in October. Badger and Sims, for example, had been asked about the issue in their December 1916 testimony.

While this came from the technical bureaus, the argument touched on the rationale and mission of the battlecruisers. Rear Admiral Ralph Earle, the head of the Bureau of

⁶¹ The U.S.N.'s leadership, both on the General Board and in OpNav were very concerned about the possibility of Japanese battlecruisers used for raiding. However, prevailing Japanese doctrine and simple mathematics would have conspired to keep the *Kongos* with the main fleet in the event of war; Japan had no capital ships to spare on secondary operations if faced with one of the other major naval powers.

Ordnance, argued for the switch because “[a] battle cruiser must be able to inflict fatal damage on the enemy’s most powerful vessels . . . Battle Cruisers should be able to open an engagement at ranges of maximum visibility where one hit or even the possibility of one hit will seriously embarrass the enemy.”⁶² Rear Admiral David Taylor, the chief of Construction & Repair made a similar argument, urging for battlecruisers to have the same armament as contemporary battleship construction.⁶³

Both of these arguments rested on the assumption that battlecruisers were intended, on some level, to fight with battleships. Furthermore, the letters assumed that the *only* thing preventing the Navy’s battlecruisers from fighting foreign battleships at maximum efficiency was their armament. Earle, a gunnery specialist, had highlighted that this fighting was ideally to take place at long ranges, where the battlecruiser’s lighter side armor would be less of an issue. At any rate, neither letter met with success. In response to their contentions, Badger wrote Daniels that the American battlecruisers were not intended for the line or fast wing, but “specifically designed to offensively screen the fleet, to protect and strengthen our own Scouts, to threaten and destroy those of the enemy, and to engage vessels of their own or inferior class.” This was a list of missions that required heavy weapons, but certainly not the heaviest, and certainly not at the cost of a substantive redesign.⁶⁴ Although Badger left out the “distantial” operations portfolio, his response to Earle and Taylor encapsulated the General Board’s opinion on battlecruisers when the United States entered World War I in early April 1917.

⁶² Rear Admiral Ralph Earle to Benson, January 31, 1917, RG 19, E 105: 22-CC1-6-1, NARA Washington.

⁶³ Rear Admiral David W. Taylor to Benson, February 16, 1917, RG 19, E105: 22-CC1-6-1, NARA Washington.

⁶⁴ Badger to Daniels, February 19, 1917, RG 19, E105: 22-CC1-6-1, NARA Washington.

The first major decision facing the Navy was the status of the new building program. By this point, it was clear that the major issue facing the Allies at sea was the German submarine campaign, which required destroyers and other flotilla vessels, and certainly not the battleships and battlecruisers at the heart of the building program. On April 20, a General Board memo, "Types of vessels required for present and future conditions," bemoaned the lack of fast scouts in the Navy, pointing out that the American scouting force would not have been able to penetrate the German or British screens deployed at Jutland. Furthermore, the situation was the same in the Pacific, although the U.S. Navy as a whole was larger than the IJN. With screening and scouting the main gaps in the American force structure, they urged that battlecruiser construction be expedited rather than canceled.⁶⁵ As David Trask has noted, though without the perhaps obligatory sense of irony, the Board's argument was Mahanian in conception. No matter the state of the war, the true importance in naval affairs rested on the battle fleet and its attendants and, whatever the circumstances, those issues had to be tackled first.⁶⁶

The Office of Naval Operations (OpNav), and Williams Sims, now the chief American liaison in London, however, had other ideas, arguing that the main need was for destroyers and submarine chasers. By June William Pratt, the Assistant Chief of Naval Operations, had written up a list of fourteen construction priorities for the U.S. Navy, headed by submarine chasers and destroyers. Battleships were marked as the fifth priority and battlecruisers dead last at fourteenth.⁶⁷ Pratt, of course, was a longtime opponent of

⁶⁵ General Board, "Types of vessels required for present and future conditions," April 20, 1917, *Anglo-American Naval Relations*, 495.

⁶⁶ David F. Trask, *Captains & Cabinets: Anglo-American Naval Relations, 1917-1918* (Columbia, University of Missouri Press, 1972), 102-3.

⁶⁷ Captain William Veazie Pratt to Benson, June 7, 1917, Box 15, Folder 4, William Veazie Pratt Papers, NHC.

battlecruisers, but his stance prevailed. Facing a supply crisis brought on by German submarines, and secure in the belief that the war would be over by the time the American battlecruisers could be completed, construction on the six battlecruisers was suspended for the duration in July.⁶⁸

The most important development of the early American war for the Navy, though, was the establishment of a headquarters for U.S. Navy forces in Europe. As mentioned earlier it was placed under the command of Sims, who had been sent to liaise with the Royal Navy in the weeks before the United States went to war. With the war joined, he was promoted to the command of all American naval forces in the area. Of course, Sims had been seen as an up-and-coming officer ever since his association with Theodore Roosevelt in the early years of the century, but this was still quite the promotion for a man who had recently been in command only of the Atlantic Fleet's torpedo flotilla.

There is no doubt that Sims was the right man for the job, not necessarily for his qualities as a leader or administrator, which proved adequate for this task, but for his longstanding association with the Royal Navy and its officers, which dated back to his contact with gunnery pioneer Percy Scott when both were stationed in China. Over the ensuing fourteen years, Sims had made a number of trips to Britain to study new developments in gunnery and naval technology, and had cultivated a number of influential friends in the Royal Navy, who had given him access to information and material—including a tour of the under-construction *Dreadnought*—that, strictly speaking, he should never have seen. Within the U.S. Navy, Sims was well known as an intense anglophile, even drawing an official reprimand for a 1910 speech at London's Guildhall, which suggested the U.S. would

⁶⁸ Trask, *Captains*, 116-25.

come to Britain's aid in a European war.⁶⁹ His reputation along these lines was such that Benson reportedly told him "Don't let the British pull the wool over your eyes," upon his embarkation for London in 1917.⁷⁰

This history made Sims the perfect choice for his new post. Not only was Sims on friendly terms with a number of senior British officers, including First Sea Lord Jellicoe, but he was also a well-known friend of Britain, something that could not be said for all of Sims's peers. The Admiralty would, of course, have collaborated with anyone in Sims's position, but it is hard to believe that his selection played no part in the Admiralty Board's instructions that Sims was to have almost complete access to the Admiralty and its offices. Furthermore, staffers were urged to communicate anything that could be of use to Sims's office, including the records of the war to date. Indeed, by November, Sims sat in on the Admiralty's daily meetings, and only the reluctance of superiors in Washington kept him from being named an honorary member of the Admiralty Board.⁷¹ By the middle of 1917, Sims's office in London and American liaisons with the fleets were sending a steady stream of reports back to Washington. Indeed, Sims's earliest dispatches from London, based on consultations with Jellicoe and senior political leaders, had been a crucial data point in favor of suspending the capital ship program in favor of destroyers.⁷²

⁶⁹ Material relating to the Guildhall speech and its fallout can be found in Box 21 of the William Sowden Sims Papers in the Manuscript Room of the Library of Congress.

⁷⁰ Sims, Testimony to the Senate Naval Affairs Committee, March 22, 1920, Box 18, Folder 3, Pratt Papers, NHC, 285-9.

⁷¹ *Anglo-American Naval Relations, 1917-1919*, ed. Michael Simpson (Aldershot, UK: Navy Records Society, 1991), 43, 133.

⁷² Elting Morrison, *Admiral Sims and the Modern American Navy* (Cambridge, MA: The Riverside Press, 1942), 342.

Battlecruisers featured heavily in much of this discussion. American liaisons with the Grand Fleet noticed the Royal Navy's new mistrust of battlecruisers, especially Fisher's youngest "children." One of those liaisons, when asked by the General Board about the *Courageous*-class vessels, responded "[j]ust what they expected to do with them I could not find out," the remainder of his testimony making it clear that this was due to British confusion more than intentional obfuscation.⁷³ Another, a naval constructor, gathered from his British contacts that the *Courageous*-class were viewed as "a complete failure," by the Royal Navy.⁷⁴ In December, another liaison laid out the Grand Fleet's cruising and battle formations for the General Board, discussing changes to keep the battlecruisers nearby—no more than 10 miles from the 5th BS and 15 miles from the rest of the battle line. In battle formation, the 5th BS served as the fast wing, "considerably ahead and inside [of the battle line] for torpedo work, while the battlecruisers steamed with the light cruisers several miles ahead."⁷⁵

It is no wonder, then, that Rear Admiral Albert Winterhalter, a former Aide for Material, had reminded his colleagues in August that the United States was free to "prescribe the military characteristics . . . [and] to be sound upon the principles," with their forthcoming battlecruisers.⁷⁶ Just beneath the surface of that statement was a thinly veiled criticism of British design and practice as unsound, an obvious conclusion for an American officer to reach even before liaison reports began to pour in. Although the British had a decade's more experience with battlecruisers, there was a sense on the Board that they did not necessarily

⁷³ General Board hearing, October 16, 1917, *Proceedings of the General Board*, Roll 11, 7.

⁷⁴ General Board hearing, October 17, 1917, *Proceedings of the General Board*, Roll 11, 6.

⁷⁵ General Board hearing, December 10, 1917, *Proceedings of the General Board*, Roll 11, 10-11.

⁷⁶ General Board hearing, August 20, 1917, *Proceedings of the General Board*, Roll 11.

have anything to teach the United States on some of the more general issues relating to battlecruisers.

This is not to say that there was nothing concerning battlecruisers in the RN's experience of use to the United States. A number of reports sent back to Washington in 1917 suggested that the Royal Navy was far ahead of the U.S.N. in fire control. Indeed, the first set of liaison officers sent to the Grand Fleet sent back such disturbing news of British gunnery prowess that they were asked to return to Washington at once.⁷⁷ As one of those officers, a Lieutenant Commander Castle, put it, the British "talked gunnery and battle tactics at the same time," a wartime development in British practice that was still lacking in the United States. More importantly, the British fire control system was far superior to that used in the United States, both in their provisions for director salvo firing, and in foul weather gunlaying.⁷⁸

The most important piece of information from Britain, though, came in the shape of detailed plans for HMS *Hood* (construction of the other three Admiral-class ships being suspended in March), conveyed to Washington by Stanley Goodall, an Admiralty naval constructor who remained in Washington throughout the war to consult with his American colleagues.⁷⁹ Not only was *Hood* the world's first post-Jutland capital ship design, but as a battlecruiser/fast battleship, it was a direct challenge to the U.S. Navy's battlecruiser designs. Although *Hood* and *Lexington* were designed for very different environments, the plans for *Hood* showed that the British and American navies were moving in very different directions

⁷⁷ Sims, letter to Captain J. Pringle, July 31, 1917, *Anglo-American Naval Relations*, 330.

⁷⁸ General Board hearing, September 29, 1917, *Proceedings of the General Board*.

⁷⁹ Friedman, *U.S. Battleships: An Illustrated Design History* (Annapolis, MD: Naval Institute Press, 1985), 163.

as far as battlecruiser designs. Give that *Hood*'s modifications were based on direct war experience, the disconnect was enough to trouble even the most confident battlecruiser partisan in the United States.

By early September, *Hood* loomed large in the Navy's deliberations over modifications to their battlecruiser design, made possible by the wartime construction freeze. Interestingly, the discussion did not turn on the issue of armor. D.W. Taylor, head of the Bureau of Construction and Repair, pointed out in September that *Hood*, though more heavily armored and about as powerful as *Lexington*, lacked the speed to catch her, and the General Board seemed convinced by that line of thought.⁸⁰ The revised battlecruiser specifications, issued by the General Board in mid-September, kept the armor scheme of the original design. When the Bureau of Ordnance made a final attempt to get the armor thickened, the Board responded that "in battle cruisers protection must be sacrificed to the imperative necessity for high speed and great gun power."⁸¹ More intriguingly, there were suggestions in October that the 7.5" guns on the new British *Hawkins*-class light cruisers could enable a squadron of scouts to overwhelm one of the American battlecruisers, their armor not being proof against 7.5" shells.⁸²

Changes did, however, come in the ships' armament, the Board finally being convinced that a battery of eight 16" guns was superior to ten 14".⁸³ Interestingly, this switch was not finalized until December, with the Bureau of Construction & Repair (C&R) leading the charge against the change. Although the Bureau had been in favor of the switch earlier in

⁸⁰ General Board hearing, September 6, 1917, *Proceedings of the General Board*.

⁸¹ General Board to Daniels, December 27, 1917, Microfilm M1140, Subject 137-1, NARA Washington.

⁸² General Board hearing, October 17, 1917, *Proceedings of the General Board*.

⁸³ General Board, "Characteristics for Battle Cruisers Building Program, 1919," M1140, 137-1.

the year, by November, Taylor felt as if the switch would necessitate a redesign of the entire ship as the constructors dealt with heavier turrets. The probable result was a decrease in speed, and an increase in draft beyond the Board's guidelines.⁸⁴ However, a letter from Badger to Daniels in late November seems to have settled the issue, and by December, C&R had acquiesced to the change.⁸⁵

At least in the short term, the Navy's only change to their battlecruiser designs in light of *Hood* was a shift in the main battery from 14" to 16" guns, and even that can be seen as a function of the construction delay; keeping the design current, rather than a specific response. At any rate, the General Board had doubled down on their high speed/low armor battlecruiser design, in face of a great deal of information from Britain that suggested the importance of thicker armor. Between the battle of Jutland and American entry into the war, the Board maintained Jutland had very little to do with proposed American battlecruiser practice, and that an American battlecruiser squadron would never find itself in the BCF's position at the battle's start. Their behavior over the next several months confirms that this was a deeply held opinion, not just an attempt to put a brave face on the situation and preserve battlecruiser funding.

However, battlecruisers were not the only, or even the main, difference between the two allies. During 1917, it became clear that the two navies had radically different conceptions of naval theory and doctrine. One modern writer has noted that in the war, British planning tended to be simplistic, and focused on means rather than ends, while the

⁸⁴ Taylor to Daniels, November 8, 1917, RG 19, E105, 83-CC1 to 6, NARA Washington.

⁸⁵ Badger to Daniels, November 22, 1917, RG 80, Office of the Secretary of the Navy; Formerly Confidential Correspondence, 1917-1919, Box 87, piece C-34:16; Taylor to Superintending Constructor at Quincy, December 18, 1917, RG 19, E105, 83-CC1 to 6.

U.S. Navy remained concerned with comprehensive planning, which he chalked up to the “rigid and Mahanite” Naval War College. Calling the War College “rigid” is almost certainly unfair, but the fact remains that the two navies had mutually incomprehensible approaches to planning.⁸⁶ This difference can, in fact, be traced to the importance of the War College in the U.S. and the comparatively minor importance of the analogous British institution. As discussed in a previous chapter, a war college tour was something that high-achieving British officers avoided (although many spent mid-career time at the technical shore establishments) and, as the first American selection board showed, a valued resume line in the U.S. Even Benson, specifically chosen for his distance from Fiske’s Newport-associated clique of modernizers, had attended a Summer Conference.

This difference proved to be more than an interesting sociological note. Combined, one suspects, with the longstanding American practice of giving its officers a university education at Annapolis, this difference made American officers much more comfortable with thinking and writing about naval theory and strategy. The idea of a service-wide strategic and tactical “doctrine,” rapidly gaining purchase in the U.S., was foreign to the Royal Navy. This highly theorized way of thinking about war permeated the American discourse on naval policy especially, as we have seen, in warship design, though it also affected the American approach to the development of naval strategy and tactics.

⁸⁶ Simpson, *Anglo-American Naval Relations*, 60. It was, however, certainly “Mahanite.” Benson’s feelings on sending an American battleship squadron to operate with the Grand Fleet in late 1917 is illuminating. Although the German fleet was bottled up in the North Sea and Britain, France, Japan, and Italy were allies, Benson still fretted that the deployment would dangerously divide the U.S. battle fleet “which is always faulty.” Benson only acquiesced in November, citing conversations with his deputy Pratt, as well as Schofield (on Sims’s staff in London), and Commander W.S. Pye (OpNav). According to Benson, his mind was also swayed by the belief that if the U.S. Navy’s battleships sat out the war, Congress and the public would wonder why the United States maintained such a powerful fleet (*Anglo-American Naval Relations*, 331-3).

It is likely, then, that when Pratt wrote Sims in July for the “Admiralty’s strategical and tactical conceptions,” he thought he was making a simple request that would be easy for Sims to fulfill. Indeed, Pratt’s language made clear that, in his opinion, the Royal Navy was holding back this information, “things we have a right to know. . . . We could work so much more intelligently toward the same unite ends, if we knew a little more.”⁸⁷ In retrospect, Pratt was asking for something that simply did not exist. Had it existed, it might have rationalized the battlecruiser design process and saved the Royal Navy a great deal of discomfort in the first half of the war.

Sims was obviously unable to procure such a document from his hosts, and the matter languished until the arrival of a large American delegation in London for multilateral naval talks. At those meetings, the Admiralty’s Plans Division produced a memorandum for Benson on the “Naval Policy of the Allies,” an anodyne document that laid out the basics of Allied (British) naval policy, like continuing the distant blockade of Germany, and hunting German submarines. Benson was not impressed.⁸⁸ Soon after receiving the memorandum, he informed Daniels that the “British are not prepared now to offer definite plans of their own for our consideration. . . . [S]uch plans . . . cannot be developed until we virtually establish the strictly planning section for joint operations here [in London].”⁸⁹

The U.S. Navy’s London Planning Section was set up soon after Benson’s visit, consisting of a handful of officers with no other administrative duties. Sims had already

⁸⁷ Pratt to Sims, July 2, 1917, *Anglo-American Naval Relations*, 76-7.

⁸⁸ Admiralty Plans Division, “Memorandum on the Naval Policy of the Allies for Admiral Benson,” November 17, 1917, *Anglo-American Naval Relations*, 135-41.

⁸⁹ Benson to Daniels, November 19, 1917, *Anglo-American Naval Relations*, 141. Trask convincingly suggests, however, that Benson was an unwilling convert to this view, his mind being changed by lobbying from the Admiralty and Sims, rather than the rather poor British memorandum. (Trask, *Captains*, 165-6).

made the War College-trained Captain Nathan Twining his chief of staff and, naturally, selected officers with a War College pedigree for the new Planning Section. These officers mostly came from the post-1911 Long Courses rather than the Summer Conferences, of which Sims had been a longtime critic. His picks also demonstrated a keen eye for talent. The first officers he installed in the planning section were Captains F.H. Schofield, H.E. Yarnell, Dudley Knox, and Colonel R.H. Dunlap of the Marines.⁹⁰ Schofield, of course, had designed the torpedo battleship tested at the War College. Dudley Knox was on the cusp of a career as a renowned naval commentator and historian. Yarnell, mentioned earlier as a strong proponent of battlecruisers, became an aviator after the First World War, and played a major role in developing carrier attack tactics in the interwar years.⁹¹

As Knox wrote after the war, the Planning Section's remit ran from "a broad survey of the course of the war as a whole," down to "a more detailed consideration of the important lesser aspects" of the naval campaign.⁹² The very first memorandum, about the less-than-successful Navy Department plan to mine the northern exit of the North Sea as an antisubmarine measure, bore the hallmarks of the Section's shared War College training in its structure and language.⁹³ By mid-January they were, in an echo of Newport assignments, referring to their prompts as "Problems."⁹⁴

⁹⁰ William S. Sims, *The Victory at Sea* (Annapolis: Naval Institute Press, 1984, reprint of 1920 original), 253.

⁹¹ Albert A. Nofi, *To Train the Fleet for War: The U.S. Navy Fleet Problems, 1923-1940* (Newport: Naval War College Press, 2010), 151-64.

⁹² Dudley Knox, "Preface," *The American Naval Planning Section, London* (Washington: Government Printing Office, 1923), v.

⁹³ Captains Dudley Knox, F.H. Schofield, and H.E. Yarnell, "Memorandum No. 1, The North Sea Mine Barrage," in *The American Naval Planning Section, London*, 1-9.

⁹⁴ Knox, Schofield, and Yarnell, "Memorandum No. 6, Closing the Skagerrack," in *Planning Section*, 27-34.

Likewise, in late 1917 Benson, with Pratt's help, released a Navy Department memorandum on "Doctrine," a favorite topic of War College-trained officers. The document suggests something of what Pratt was looking for when he asked Sims for the "strategical and tactical conceptions" of the Admiralty. In the words of the memorandum, doctrine was "a conception of warfare which is common alike to the Commander-in-Chief [of a fleet] and his subordinate commanders; . . . [a] basis for decisions before and during battle."⁹⁵ The doctrine laid out in the memorandum is itself nothing that a reasonably careful reader would have not picked up on by now—a focus on offensive battle, a preference for action over maneuver, an emphasis on concentration—but the importance of such a document lay in its existence more than its content. The paper was an attempt to create an animating doctrine for the service. In this case, the U.S. Navy was intellectually homogenous enough that it merely formalized one that effectively existed. Still, a written doctrine gave commanders formal guidelines on how to operate in lieu of orders, or with incomplete orders. As the example of the Dogger Bank showed, such understanding was quite valuable in times of war.

Some months after Jutland, Jellicoe left the Grand Fleet to assume the responsibilities of the First Sea Lord in London, replacing the competent, but stolid Henry Jackson. There, Jellicoe hoped that "he could bring to the Admiralty fresh ideas about how to deal with the new U-boat offensive," a greater threat than the German battle fleet. On the way out, Jellicoe

⁹⁵ Benson, "Doctrine," December 1, 1917, M1140, Roll 26, 112-12, 2-3. The memorandum, signed by Benson and distributed across the Navy, was almost certainly written by the OpNav staff, probably under the direction of Pratt, who would supervise the OpNav planning section when it was formally set up in 1919.

tried to manage his succession. Although Beatty was the obvious choice, Jellicoe did not trust him and lobbied against both Beatty and Sturdee, the next strongest candidate, in favor of Charles Madden, his brother-in-law and chief of staff. First Lord Arthur Balfour, however, overruled him, and Beatty became the Grand Fleet commander upon Jellicoe's departure.⁹⁶

Arriving in London with a host of Grand Fleet officers and, soon, a new First Lord, Edward Carson, Jellicoe set to work reforming the Naval Staff. Under Jackson, Churchill's War Staff Group had retained a great measure of power, but Jellicoe quickly moved to expand the statutory War Staff's size and influence. Alongside that, changes came to the Admiralty staff's structure. In May the War Staff's name was changed to the Naval Staff. Most importantly, its structure was modified. The Chief of Staff post was merged with that of the First Sea Lord. Under the First Sea Lord/Chief of Staff were the Deputy Chief of the Naval Staff (DCNS) and the Assistant Chief of the Naval Staff (ACNS), and both were given places on the Admiralty Board.⁹⁷ In theory, the two new officials were responsible for, respectively, surface operations and coordination of the antisubmarine campaign.⁹⁸ These new administrative arrangements finally made the Naval Staff an integral part of Admiralty decision-making.

In practice, the impact of these reforms was blunted by Jellicoe's misunderstanding of staff duties, a common defect in the Royal Navy's senior leadership. Though the DCNS and ACNS positions had been set up to free Jellicoe for major elements of policy and strategy, he buried himself in the details of the staff, far too much work for one man to handle. This focus

⁹⁶ Andrew Gordon, *The Rules of the Game* (London: John Murray, 1996), 519-21.

⁹⁷ Hamilton, *Making of the Modern Admiralty*, 252-3.

⁹⁸ Nicholas Black, *The British Naval Staff in the First World War* (Woodbridge, UK: Boydell, 2009), 191-2.

kept Jellicoe from attending to the properly executive functions of his new, dual-hatted, role, and his clogged docket led to delayed action on the issues that were more properly his responsibility. Although convoys were established, very little else got done in the Naval Staff, and Jellicoe was removed in late 1917, by a new First Lord, Eric Geddes, who bemoaned the inefficiency of the Admiralty. In his stead, Geddes appointed Rosslyn Wemyss, an unimpressive thinker, but a better delegator.⁹⁹

While in Whitehall, Jellicoe continued to worry about the battlecruiser situation in the North Sea. In late July 1917, he send a panicked memorandum to First Lord Geddes, bemoaning the battlecruiser situation in the North Sea. The Germans, were, he warned, nearly catching up to British battlecruiser strength, with six battlecruisers to Britain's seven. Although the German Navy only had five battlecruisers in reality—Jellicoe believed that the Germans had a fourth *Derfflinger*-class ship, the imaginary SMS *Manteuffel*—his argument hinged more on the characteristics of British and German battlecruiser design. None of the British battlecruisers, especially the *Renowns*, with “the protection of armoured cruisers and not of battle-cruisers,” could be trusted to hold their own in a fight with the 1st Scouting Group. With that qualitative edge, Jellicoe reckoned, German battlecruisers could raid the English east coast with impunity, and drive in the Grand Fleet's scouts before battle.¹⁰⁰

Jellicoe's solution to the problem was unorthodox. With no new battlecruisers forthcoming until *Hood* in late 1918 at the earliest, he suggested that the Royal Navy buy two of Japan's *Kongo*-class battlecruisers for service with the BCF. Somewhat surprisingly, Geddes and the Cabinet agreed to look into it. Although the Japanese government quickly

⁹⁹ Hamilton, *Making of the Modern Admiralty*, 255-61.

¹⁰⁰ Jellicoe, “British Battle-Cruiser Strength,” July 21, 1917, in *Jellicoe Papers*, vol. II, 185-7.

shot the idea down, it emphasizes the extent of Jellicoe's concerns over British battlecruiser strength.¹⁰¹ Lest the reader think that this plan was a passing fancy of Jellicoe's, it is worth noting that the idea was resurrected in Sims's London Planning Section towards the end of the war in contingency plans for German battlecruisers breaking out of the North Sea.¹⁰²

Like Jellicoe, officers with the Grand Fleet shared his concern over the British battlecruiser fleet. On his way to the Admiralty, Jellicoe had managed to get the Battle Cruiser Fleet downgraded to a mere *Force*, which mirrored its drop in prestige after Jutland.¹⁰³ Although Jellicoe, as First Sea Lord, exercised very little control over Beatty, the new commander of the Grand Fleet felt his way towards a more restrained battle doctrine. Belying his reputation as an aggressive, even foolhardy commander, Beatty's tenure with the Grand Fleet confirmed the cautious, reactive, strategy endorsed by his predecessor.

This was, to put it mildly, surprising. Although Jutland had drained Beatty's faith in the material of the Battle Cruiser Fleet, he had shown no regrets for the aggression of British battlecruisers there. A week after the battle, he told Admiral Hamilton that "You should have seen [Horace Hood] bring [the 3rd BCS] into action, it would have done your heart good, no one could have died a more glorious death."¹⁰⁴ As discussed above, Beatty also rankled at the restrictions the Admiralty placed onto the BCF's freedom of action in the weeks after the battle.

Beatty's first action as Grand Fleet commander was in keeping with his aggressive reputation. It was understandable that Beatty would feel uncomfortable on Jellicoe's flagship,

¹⁰¹ *Jellicoe Papers*, vol. II, 188-9.

¹⁰² London Planning Section Memoranda Nos. 46 and 50, *American Naval Planning Section*.

¹⁰³ Gordon, *Rules of the Game*, 520.

¹⁰⁴ Hamilton diary entry, June 7, 1916.

Iron Duke, and he soon moved to shift his flag. Rather than choosing one of the 21-knot dreadnoughts, or even one of the 23-knot R-class ships, Beatty insisted on the 25-knot *Queen Elizabeth*, which robbed the 5th BS of one-fifth of its strength. While doing so, Beatty intimated that a 25-knot flagship would allow him to steam around looking for “the most favourable position for exercising supreme command in battle.” With this role, Beatty threatened to subordinate effective management in the fleet to his own impetuosity.¹⁰⁵

Likewise, Beatty changed the Grand Fleet’s Battle Orders, bringing them in line with the instructions he had issued to the 1st BCS in 1913, and extended to the BCF in 1915. As Andrew Gordon noted, there was much to appreciate in Beatty’s focus on decentralization and initiative from squadron commanders.¹⁰⁶ Richmond, for example—now captain of the pre-dreadnought HMS *Commonwealth*—lauded Beatty’s new battle orders, “marked by a high degree of courage and preparedness to accept risk. If such orders had been in existence on May 31 last year . . . I make small doubt that the High Sea[s] Fleet would have been destroyed.”¹⁰⁷ As Richmond’s analysis noted, the decentralization of command increased the likelihood that squadron commanders would engage enemy formations, even in the absence of firm orders from the top.

Still, there were concessions to the newfound vulnerability of battlecruisers. No longer the “tip of the spear,” he informed his captains in July that the battlecruisers would, in concert with the battle fleet, “keep close company up to the moment of contact.”¹⁰⁸ By January 1918, he had relaxed somewhat and allowed the BCF to “afford support to the

¹⁰⁵ Gordon, *Rules of the Game*, 524-5.

¹⁰⁶ Gordon, *Rules of the Game*, 527-8.

¹⁰⁷ Richmond diary, March 19, 1917, *Portrait*, 238.

¹⁰⁸ Richmond diary, July 30, 1917, *Portrait*, 265.

British advanced forces,” and keep the enemy fleet “under observation, taking care not to be brought to action by superior force.” If battle was joined, and the German battlecruisers not present, the first mission of the BCF was to launch a torpedo attack on the enemy line, which would allow them to present a more elusive target to German gunners.¹⁰⁹

This caution came in spite of a dramatic numerical superiority in favor of the BCF. Even after Jutland, the British maintained a 7-5 lead in battlecruisers. In the following months, *Repulse* and *Renown* entered the fleet, as well as two of the “freaks” (by 1918, *Furious* had been effectively converted into a carrier), more than making up for losses from the battle. However, Beatty evidently did not feel that these eleven warships had a *qualitative* edge over the six the Germans were believed to possess in early 1918 (in reality the number was five).¹¹⁰

Likewise, the men in command of the Grand Fleet’s battlecruisers took their own initiatives to compensate for what they saw as unforgivably thin armor. Vice Admiral Pakenham, now in command of the BCF, issued a set of “Battle Cruiser Force Orders.” Pointedly, Pakenham’s Orders set the BCF’s ideal fighting range at 16,000 yards, further than the ranges at which *Queen Mary* and *Indefatigable* had been hit and sunk at Jutland, and a range calculated to “minimize the disadvantage of our lighter protection.” Based on war experience it was also, however, beyond the effective range of British gunnery, negating much of the utility of their heavy guns.¹¹¹

¹⁰⁹ Beatty Grand Fleet Battle Instructions, January 1918, *Beatty Papers*, Vol. I, 459-71.

¹¹⁰ Stephen Roskill, *Admiral of the Fleet Earl Beatty: The Last Naval Hero: An Intimate Biography* (London: Collins, 1980), 250-1.

¹¹¹ Pakenham, “Battle Cruiser Force Orders,” August 4, 1917, ADM 137/2135: Battle Cruiser Force War Records, Vol. VII, 500.

Further special discussion was required for the light battlecruisers that came into the fleet after Jutland. The *Courageous* and *Glorious* went into light cruiser squadrons attached to the BCF, but they were not part on the main BCF formation. *Renown* and *Repulse*, on the other hand, were added to the 1st BCS. Pakenham's solution to the lighter armor of the two newer battlecruisers was to place them on the disengaged side of the BCF formation in action, about two miles away from the other ships. Although the new arrangements would keep the thin-skinned newcomers safe, adding another two miles to the 16,000-yard firing range would make their accuracy—especially with only six guns each—highly suspect.¹¹²

By the late summer of 1918, Pakenham and the new 1st BCS commander, Rear Admiral Henry Oliver, put the squadron's dispositions in contortions to keep the firepower of the new battlecruisers, while sheltering them from hostile fire.¹¹³ Oliver suggested dividing the 1st BCS into two "sub-divisions," the first consisting of *Lion*, *Princess Royal*, and *Tiger*, and the second *Repulse* and *Renown*. By dividing the squadron in two, Oliver hoped to utilize the new ships' firepower while keeping them out of the range of German guns where "REPULSE and RENOWN" would probably last a very short time. In normal cruising formation, Oliver wanted to keep the 2nd subdivision ahead of the first, where they would be well positioned to chase German battlecruisers and engage the rear ship at long range. If they turned to fight, the 2nd subdivision could fall back on the first at a combined speed of 54 or 55 knots, though the *Lion* and her near-sisters were hardly an impregnable citadel.¹¹⁴

¹¹² Pakenham to Rear Admiral Richard Phillimore, May 26, 1917, ADM 137/2135, 149.

¹¹³ Pakenham to Rear Admiral Henry Oliver, August 3, 1918, ADM 137.2135, 151

¹¹⁴ Oliver to Pakenham, September 16, 1918, ADM 137/2135, 153-4.

As the preceding pages show, the Grand Fleet was able to come to something of an tactical doctrine amenable to battlecruisers. This understanding was reached at the cost of the offensive spirit that Beatty's appointment seemed to herald. Although Beatty's instructions and mindset pointed towards a more aggressive approach and, in the tactical realm, delivered, concern over the BCF hamstrung British operational initiative as surely as Jellicoe's overly centralized command structure before 1917. The BCF and the 5th BS were the only ships in the Grand Fleet that could hope to force an engagement on an unwilling German fleet, but the example of Jutland provided a terrible reminder of what could happen to such ships without heavier support. By the end of the war, the battlecruisers may well have been, to borrow a phrase from prewar discussions, the cavalry of the fleet, but only in the sense that they were limited to reconnaissance, pursuit, and harrying a defeated enemy.

The Royal Navy's lack of a coherent service-wide doctrine in any sense of the word can be traced through the First World War up to, and past, Jutland. It stands out most starkly, however, in the service's wartime battlecruiser policy. From Fisher's five "children," to Beatty's repeated requests for the *Queen Elizabeths*, to Jutland, the design and employment of battlecruisers were marred by serious disagreements amongst the Royal Navy's senior leadership, disagreements that could, and should, have been handled and worked out in peacetime. One could, in fact, make a strong case that the Beatty/Callaghan stance on using British battlecruisers to hunt German ones represented a sort of nascent doctrine, but this agreement was shattered by the appointment of Jellicoe at the beginning of the war, and

exacerbated with the return of Fisher, a First Sea Lord who interpreted his responsibilities rather broadly. The effects of this confusion have been noted throughout this chapter. Surely, it is telling that the Admiralty did not feel the need to create a binding battlecruiser doctrine, in conference with Jellicoe and (to some extent) Beatty, until after the battle of Jutland proved its necessity.

The tactical-technical synthesis revolving around short engagements at medium ranges highlighted by Sumida was perhaps the closest the Royal Navy came to reaching such a doctrine. By 1913 it does indeed seem as if the Admiralty, and the next Home Fleet commander, Jellicoe, were on the same page when it came to a doctrine of short-range battle, to the point where the design of the R-class battleships was shaped by these considerations. However, Jellicoe only became the Grand Fleet commander at the beginning of the war, and thus was unable to spread the doctrine throughout the fleet, forcing Jellicoe to modify his ideal tactical precepts.¹¹⁵ Furthermore, the replacement of Battenberg with Fisher, who was clearly out of the loop regarding this new doctrine, placed further restrictions on Jellicoe's behavior. Sumida's argument is mostly convincing, and also goes some way to explain the lack of long-range fire exercises in the prewar Royal Navy.¹¹⁶

No such problems arose in the United States Navy, which, admittedly, was not operating under the same pressures as the Royal Navy. The groundwork for the Navy's eventual battlecruisers had begun as early as 1911, and when the time came to design the first class of American battlecruisers, the process went off well, as did the eventual switch to a 16" main battery. Even within the General Board, the process appears to have gone

¹¹⁵ Sumida, "A Matter of Timing," 113.

¹¹⁶ Sumida, "A Matter of Timing," 85.

smoothly, the only dissenter being Benson who, to be brutally honest, was probably not on a Board-bound career trajectory when elevated to the CNO post by Daniels. The U.S. Navy was so united and confident in its ideas that both the battle of Jutland and the first eight months of contact with the Royal Navy failed to make an impression on the Board's battlecruiser stance. Compare that, for example, to the Russo-Japanese war which hastened American acceptance of dreadnought battleships and was the dominant factor in the death of the armored cruiser in the United States. By contrast, the confidence—one is tempted to call it complacency—emanating from the General Board in 1916-17 is striking. If anything, Jutland seemed to confirm the correctness of the Board's scouting battlecruiser.

Ironically, Fisher's abortive second term at the Admiralty, where the difference in design process was the greatest, probably saw the closest agreement between American and British conceptions of battlecruiser design. Neither the British nor American navies knew it at the time, of course, but the original *Lexington* design reminds one of nothing so much as an up-gunned *Repulse*. One could even make a reasonable argument that both the *Repulses* and *Lexingtons* were designed for similar "distantial" operations, although the American ships were also designed for scouting and screening in conjunction with a battle fleet.

Hood, however, showed that British and American conceptions were again drifting apart, despite wartime ties. By the end of 1917, calling *Hood* a "battlecruiser" may be somewhat incorrect. The only capital ship under construction at the time, *Hood* combined great firepower and at least adequate armor. Already, some in the Royal Navy were thinking about the heavy battlecruiser as a "fast battleship," and the future of capital ship design, a stance the Royal Navy moved towards semi-officially in 1918. As a battlecruiser, *Hood* presented a challenge to the American battlecruiser design, but as a battleship, she presented

a potential challenge to the entire American naval worldview. This challenge would overshadow any parochial battlecruiser concerns in the United States through the middle of 1919, and in some sense, loomed large over the remainder of the American battlecruiser experiment.

While *Hood* served as the lodestar for future fast capital ship design in Britain, the Grand Fleet under Beatty also came to a battlecruiser doctrine based on an appreciation of the type's strengths and weaknesses. The term "doctrine" is used advisedly; Beatty's truncated fighting instructions included very specific guidance on how battlecruisers were to be used. Furthermore, this doctrine was shared by the BCF commander, in contrast to the situation in 1914-16. Although he had no impact on the Grand Fleet's dispositions, it is worth noting that Jellicoe's actions as First Sea Lord suggest that he implicitly agreed with Beatty's new, more cautious approach.

The new—the first—British battlecruiser doctrine was clearly a temporary stopgap. It was an entirely negative approach based on the perceived flaws of the battlecruiser type in general, and British designs in particular. The chastening effect of Jutland produced a doctrine that emphasized safety and survivability over offensive action, a perfectly reasonable approach, but one that flew in the face of the aggressive spirit of the 1st BCS before the war and the BCF until Jutland. A solution, however, was on the horizon. A postwar navy built to the *Hood* pattern promised a return to an aggressive posture with the fleet's fast capital ships.

Likewise, *Hood* would come to challenge the U.S. Navy's understanding of battlecruiser warfare. The value of speed in large warships had been firmly established amongst the Navy's leadership by the end of 1917. In 1917, the British example fired the

imagination of the Navy's technical bureaus, suggesting the possibility of combining speed, armor, and firepower on a true "compromiseless ship" on nearly the same displacement on the *Lexingtons*. Moving into 1918, the British design would also raise questions amongst the Navy's strategic thinkers, especially in OpNav and at Sims's London headquarters. Why not, they asked, follow the British lead, and built one sort of capital ship in the future? Such a warship would have nearly the same scouting value as the *Lexingtons*, while giving a commander more options in a pitched battle.

CHAPTER 8: FAST BATTLESHIPS

Apart from some occasionally conflicting analysis of the Russo-Japanese War, the ideas with which the participants entered the First World War were based on peacetime theory rather than wartime experience.¹ The Great War allowed these ideas to be stress-tested and, in many cases, they proved problematic. Furthermore, the years of conflict spawned new ways of solving old problems, new issues like unrestricted submarine warfare, and ad-hoc tactical and organizational fixes to deal with them. The end of the war in 1918 brought the opportunity for both the American and British navies to consider the “lessons” of the war at length.

In Britain, these lessons were especially negative. Although the Allies won the war, aided by a large contribution from the Royal Navy, the sense within the service was that its operational and tactical performance left much to be desired. The key disappointment of course, was Jutland, where a numerically superior British fleet failed to destroy the High Seas Fleet. Furthermore, the RN managed to lose three battlecruisers and their crews under circumstances that suggested faulty design or faulty construction.

At the same time, the end of the war brought a new set of challenges in the strategy and policy arenas. The immense expenses of the First World War left Parliament unable to find funding to resume capital ship construction, while the results of the war gave the British

¹ Andrew Gordon, *The Rules of the Game: Jutland and British Naval Command* (London: John Murray, 1996), 579. The consequences of this constitute the main part of his conclusion (pp. 576-601). Although he does not always acknowledge his subjects’ lack of other examples to draw from, the entire section is a thought-provoking examination of these issues.

two new potential enemies to consider: the United States and Japan. Although the United States and Britain had no outstanding disputes or points of friction, the potential of the British Navy ceding supremacy to another country was perhaps the ultimate fear of British policymakers, and had been for at least a century prior.

The Japanese situation was almost as serious. Although Britain and Japan were still formally allied, that alliance had been signed because of shared Anglo-Japanese mistrust of Russian and German designs in the Asia-Pacific region. With the collapse of the German and Russian empires in the recent war, there was very little keeping the alliance together besides a shared mistrust of the United States, and even that was tenuous; the British preferring a hedge against American adventurism more than an anti-American combination. Without a firm relationship with Japan, Britain's strategic problems grew even larger. Policymakers in Whitehall realized that Japan was a revisionist power, especially after the Paris Peace Conference, and if it was not allied with Britain, then the many British possessions in the region would look rather tempting. Confronting that threat, however, would require a wholesale rethinking of British defense policy and the construction of expensive new basing facilities in the Far East.²

These challenges forced a great deal of rethinking from the Royal Navy's leadership. Practically speaking, there was no money for anything else immediately after the war. More substantively, the perceived failures of the Royal Navy in the war—poorly-designed battlecruisers, an inadequate response to the unrestricted submarine campaign, and a baffling

² The issues discussed in the previous two paragraphs are covered at length in the literature. For perhaps the best summary, see John Ferris's *Men, Money, and Diplomacy: The Evolution of British Strategic Policy, 1919-26* (Cornell, 1989) pp. 1-14 and 92-110. The first volume of Stephen Roskill's *Naval Policy Between the Wars* (New York: Walker and Company, 1968) looks at these from a specifically naval perspective, especially pp. 1-300. The tenth chapter of Paul Kennedy's *The Rise and Fall of British Naval Mastery* (New York: Scribner, 1976) places these in the wider context of British naval history, though large parts of his analysis have been superseded by Roskill and, especially, Ferris.

inability to defeat the High Seas Fleet in battle—were issues that could not be met with a material response. Issues that, in theory, could have been met that way, like the new U.S. Navy, were impossible to in the postwar fiscal environment. Any changes in the postwar era would have to be intellectual ones.

As the British situation suggests, the issues facing the United States were rather less severe. The U.S. Navy, especially the all-important battleship fleet, had not been subjected to as much strain and doubt as its British equivalents during the war years. Uninvolved in Jutland, or any other ship-to-ship surface action, the U.S. Navy remained convinced that its tactical and operational apparatus was fit for purpose, though the British experience was studied in depth. As in Britain, the threat of Japan was increasingly worrisome, though in the American case this necessitated a much smaller shift in resources and attention.

In late 1916 and early 1917, the U.S. Navy's leadership had declared themselves utterly unconcerned about the supposed lessons of Jutland for battlecruiser design, placing their trust in the United States' novel battlecruiser doctrine. Upon further reflection, though, some American officers reassessed their commitment to the lightly armored battlecruisers under construction in the United States. In something of a throwback to the end of the previous decade, the U.S. Navy found itself torn by the issue of battlecruisers; whether to stay with the native design approved in 1916, or build something mimicking HMS *Hood*.

One could be forgiven for looking at the U.S. Navy in late 1917 and thinking that battlecruisers were a settled issue. After all, at the end of that year the Navy had a

battlecruiser doctrine, a battlecruiser design, and authorization for the construction of six. As the United States Navy entered what would be the final year of the First World War, however, it found itself conducting a host of missions—escorting convoys, chasing submarines, laying mines in the North Sea, supporting the British Grand Fleet—that were entirely at odds with its alleged purpose and the proclivities of the officer corps. Despite these new and unexpected roles, the three major foci of American wartime naval thought—William Sims and his Planning Section in London, the Office of Naval Operations, and the General Board—were able to spend much of their time discussing plans for the future. Near the top of their respective lists was the fate of the six battlecruisers authorized in 1916, whose construction had been suspended for the duration of the conflict.

Despite approval of the shift from 14” to 16”guns in the sketch design, problems remained in producing plans detailed enough for construction. In their first hearing of 1918, the General Board discussed two outstanding issues that remained in the new design. The first was armor, with some Board members dubious about the utility of two thinly armored decks instead of one armored deck of moderate thickness. More important, though, was the torpedo issue. The narrow, crowded hulls of the *Lexingtons* made it difficult to find a place for the eight torpedo tubes called for in the design. Even worse, if space could be found, it was beyond the capability of American torpedoes to be fired from either broadside at the ships’ projected 35-knot top speed, a critical flaw, especially for those who felt the ships had a major role to play in fleet actions.³

It is unsurprising, then, that the Navy used the construction respite to refine the design. In February the Bureau of Ordnance asked the British naval attaché in Washington,

³ General Board Hearing, January 2, 1918, *Proceedings and Hearings of the General Board of the U.S. Navy 1900-1950* (Washington: National Archives Microfilm Publications, 1987), Roll 12.

Guy Gaunt, for the Royal Navy's "general opinion as to thickness and dispositions of armour for battlecruisers," indicating that the designs were being held in anticipation of such information.⁴ No information was forthcoming from the Admiralty, which reminded Gaunt and, presumably, the Americans that they were already in possession of the full plans for *Hood*, which represented current best practices in the Royal Navy.⁵ In April, Captain William Pratt, the Assistant Chief of Naval Operations, tried a more personal touch, writing to Sims in London, asking for his opinion on when the U.S. could resume its capital ship program. Additionally, he asked for a description "of the characteristics (in sufficient detail to be readily understood by the technical experts) of all our leading types . . . particularly that outline for the battlecruiser."⁶

Sims's Planning Section had done some work that touched on the battlecruiser issue. In January, they had advocated for convincing Japan to add its four battlecruisers to the Grand fleet. Like Jellicoe in 1917, the Planning Section feared the effects of German battlecruisers breaking out into the North Atlantic to attack shipping, and felt that the Japanese ships were necessary to provide full coverage.⁷ A follow-up memorandum in mid-May gave detailed suggestions, including placing American battleships with convoys, using

⁴ Captain Guy Gaunt to Admiralty, February 12, 1918, *Anglo-American Naval Relations 1917-1919* ed. Michael Simpson (Aldershot, UK: Scholar Press for the Navy Records Society, 1991), 501.

⁵ Rear Admiral Lionel Halsey to Gaunt, February 13, 1918, *Anglo-American*, 501.

⁶ Pratt to Sims, April 2, 1918, Box 15, Folder 14, William Veazie Pratt Papers, Naval Historical Collection, U.S. Naval War College, Newport, R.I.

⁷ Captains Dudley Knox, F.H. Schofield, and H.E. Yarnell, "Memoranda No. 8: Estimate of the General Naval Situation," January 21, 1918 in *The American Naval Planning Section London* (Washington: Government Printing Office, 1923), 37-49.

destroyers to hunt for the vessel, and a team of two or three battlecruisers to run the raider down once found.⁸

This scenario does not seem to have exercised Sims's imagination as much as the Royal Navy's *Hood*. In late 1916, Sims had reaffirmed his belief in the U.S. Navy's battlecruiser design, claiming that one of the key lessons of Jutland was "the extraordinary resistance battle cruisers can sustain," in battle.⁹ Now Sims—and his staff—believed that the ideal American battlecruiser should have twelve-inch armor, eight 16" guns, and a speed of 32.5 knots on a displacement of 42,000 tons. Those specifications almost exactly match those of HMS *Hood*, a repudiation of his earlier confidence in the original Board design of 35 knots, 14" guns, and 5" belt armor. Besides changes to the battlecruiser design, Sims's response to Pratt called for the building program to resume as soon as conditions allowed, for use against a possible naval alliance of Germany, Austria, and Japan.¹⁰

Ironically, however, given Sims's concern with thicker armor, early 1918 also saw American officers increasingly question the utility of battleship armor, especially side armor, which seemed to lose value at the long ranges and high angles of attack produced by modern conditions. Yates Stirling, an officer most associated with submarines, but a strong battlecruiser partisan nonetheless, suggested in *Scientific American* that this made battleships

⁸ Knox, Schofield, Yarnell, and Colonel R.H. Dunlap, USMC, "Memorandum No. 26: Battle-Cruiser Raid," May 17, 1918, in *Planning Section*, 213-223. In response, the Admiralty indicated their support for convoy escorts, but argued that scouting for a battlecruiser raider and bringing to heel was impossible in the Atlantic. Instead, elements of the Grand Fleet would endeavor to prevent its return to Germany. The Planning Section's own postwar history (Memorandum No. 71, December 30, 1918) suggested that this hesitance on the Admiralty's part was "due partly to their lack of familiarity with and practice in scientific methods of scouting." A more prosaic explanation is that the Admiralty was loath to reduce the margin of British battlecruiser strength in the North Sea, given their fears that German battlecruisers were superior on a ship-for-ship basis.

⁹ William S. Sims, reprint of *New York Herald* article, *Proceedings*, November-December 1916, 2053-4.

¹⁰ Sims to OpNav, [May] 1918, Microfilm M1140, Subject 137-2, NARA Washington. Writing in the midst of the *Kaiserschlacht* offensives, neither Sims nor his staff seem to have anticipated the eventual outcome of the war. At the very least, the proposed standard suggests a reasonably equitable negotiated peace.

vulnerable to battlecruisers, as neither type could carry adequate deck armor to keep out high caliber plunging shells. Stirling went one step further, though, taking the Fisherite position that the greater speed of battlecruisers gave them the advantage in these sorts of long-range gunnery duels, eventually forcing a merging of the two types into an unarmored ship of about 40,000 tons with twelve 14" guns, any armor being "weight wasted," at combat ranges.¹¹

Stirling's argument against battleship armor and Sims's recommendation for battlecruiser armor (and they were hardly the only people making such arguments in early 1918) suggested the possibility of a hybrid along the lines of *Hood*: a fast, moderately armored, battleship that could replace *both* types. In early April, Chief Constructor Taylor, impressed by the plans for *Hood* ferried to Washington by the British constructor Stanley Goodall, instructed his Bureau to begin consideration of such designs, with an eye towards getting them approved for the following year's program.¹² This was a somewhat unusual step for C&R to take. As we have seen with Constructor Robinson and his series of battlecruiser studies in 1911-12, the Bureau was certainly willing to sanction the development of speculative designs, but Taylor attempted to confront the General Board with a *fait accompli* rather than a proof of concept. By May 10, the designs were finished and Taylor, presumably, set out to convince the heads of Steam Engineering and Ordnance of the wisdom of the hybrid, soon dubbed a "fast battleship."¹³

In early June, the chiefs of the three technical Bureaus submitted a memo to the Secretary and General Board with four designs. Design A was the *South Dakota*-class

¹¹ Yates Stirling, "The Unarmored Battleship," reprinted in *Proceedings*, March 1918, 666-8.

¹² Norman Friedman, *U.S. Cruisers: An Illustrated Design History* (Annapolis, MD: Naval Institute Press, 1984), 97.

¹³ Friedman, *Cruisers*, 98.

battleship design, built to the Board’s specification and B was a modification of the existing battlecruiser design, which increased the main armor belt from 5” to 9” and incorporated improved torpedo resistance at the cost of two knots’ speed. At the heart of the memo, though, were C and D, two fast battleship designs with the same 12x16” armament as the *South Dakotas* and, respectively, 30 and 29 knots’ speed (Design D was shorter than C and carried an extra belt of armor above the main belt). As the table below shows, both designs were obviously intended to outclass *Hood* and, indeed, the British fast battleship was the only foreign comparison brought up in the memo:¹⁴

	<i>Lexington</i> (as of 1/1/18)	Design B	Design C	Design D	HMS <i>Hood</i>
Speed	35 kts	33 kts	30 kts	29 kts	31 kts
Main Battery	8x16”	8x16”	12x16”	12x16”	8x15”
Armor: Belt	5”	9”	12”	12”	12”
Deck	2”	2”	3”	3”	3”
Turrets	6”	12”	16”	16”	15”

According to the memo, the bureau chiefs were driven to take this drastic step because of wartime lessons, which, they hinted, the General Board had ignored. In their words, the war had “emphasized the importance of adequate armor protection,” leading the Bureaus to question the wisdom of battlecruiser armor designed to keep out nothing larger than a 6” shell. With battleships, although the *South Dakotas* were two knots faster than their 21-knot predecessors, the trend seemed to be for even more speed. More fundamentally, the

¹⁴ Bureaus of Construction and Repair, Ordnance, and Steam Engineering, “Capital Ships – Preliminary Design,” June 3, 1918, Record Group 80, Office of the Secretary of the Navy; Formerly Confidential Correspondence, 1917-1919, Box 83, Subject C-34:4, NARA Washington, 2-4.

memo strongly suggested that the time had come to amalgamate the battleship and battlecruiser classes into “a high-speed battleship, or a heavily armed and armored battle cruiser as preferred.”¹⁵

The technical bureaus’ suggestions went directly against the stated wishes of the General Board, as the submitters must have known. In late 1917, the Board had refused to consider any changes to the battlecruiser design beyond the switch in main battery. Additionally, in early June 1918, the Board had submitted their own construction program for the coming fiscal year; five battlecruisers and two battleships for the 1918-19 fiscal year, and 10-12 more battleships and 15-16 battlecruisers under construction by 1920 on top of the remaining construction authorized in the 1916 bill.¹⁶ For the Board, then, the suggestions from Taylor and his associates would seem to have been as unwelcome as they were unsolicited.

The Board did take the new designs seriously, however, holding three hearings on the issue over the course of the month. The highlight of the first, on June 17, with Constructor Robert Stocker, focused on the comparison between the B design and *Hood*, with Stocker admitting that the changes suggested would not bring its protection to *Hood’s* level, while also lessening its speed advantage.¹⁷ In the third meeting, with Ralph Earle, the Chief of the Bureau of Ordnance, the topic turned towards the fast battleships after Earle admitted towards the beginning of the hearing that he did not care for the B design, in keeping with his

¹⁵ “Capital Ships,” 2.

¹⁶ General Board to Daniels, June 1, 1918, M1140, Subject 137-1. This request is somewhat out of sequence. At this point, the Board would usually be in the midst of composing a plan for the bill to be passed in mid-1919, but presumably, the course of the war, which had changed a great deal since mid-1917, induced the request for a more robust FY1919 program.

¹⁷ General Board Hearing, June 17, 1918, *Proceedings and Hearings of the General Board of the U.S. Navy, 1900-1950*, Roll 12 (Washington, DC: National Archives Microfilm Publications, 1987), 11-2.

earlier assumption that battlecruisers should be designed to fight battleships. Instead of a 33-knot battlecruiser, he suggested, why not build a 30-knot battleship with more firepower and armor? Even with the fast battleships, though, the Board's questioning betrayed concern over both the armor in the C and D variants and their expense, compared to the A design.¹⁸

Both of these concerns came out in the Board's July 6 formal response to the "ABCD" memo, where the Board indicated their support for A, the prevailing battleship design, as well as the already-approved battlecruiser design with a 5" belt. In their own words, the Board could see "no advantage in increasing the thickness of armor above 5", having in view the sacrifice this would entail in speed and other characteristics." Even before C&R's modifications the Board's battlecruiser would be, they claimed, more powerful than any existing or projected battlecruiser.¹⁹ Here, the Board reaffirmed their belief that the main role for battlecruisers lay outside of the line, and indeed, outside of large battles in general. The 5" armor, of course, was less than that given to American armored cruisers at the turn of the century, derided at the time for their thin armor.

The main purpose of the Board's response, though, was to savage the case for fast battleships, the General Board providing an eight-point list of problems with the concept:

Merging two types, each of which is needed, into one failing to answer fully the requirements of either, on account of 2. Loss of speed as battle cruiser, and 3. Loss of protection as battleship; 4. Will introduce new elements into fleet maneuvering and tactics being 5. More disturbing to homogeneity, without compensating advantages to the fleet as a whole. 6. Represents a radical departure from the gradual increases hitherto prevalent in battleship construction and, therefore, 7. Would demand a rebuilding of the fleet, similarly to the introduction of the dreadnaught [sic]; this necessity the General Board is not prepared to admit; 8. Is unnecessarily large and

¹⁸ General Board Hearing, June 24, 1918, *Proceedings and Hearings*, Roll 12, 1-4.

¹⁹ General Board to Daniels, July 6, 1918, RG 80, Box 83, C-34:4, 6-7.

therefore inordinately expensive, considered either as a battleship or battle cruiser, for meeting the like type of possible enemy.²⁰

The financial case made by the Board was rather curious. Since its inception, the Board had been willing to present building programs that were unacceptable to the Secretary or Congress, as they had done just five weeks earlier. It is hard to avoid the feeling that the Board tailored its argument to its audience here, figuring that Daniels would be swayed by financial considerations rather than tactical issues.

The Board's response suggests that there was something more fundamental to its opposition than just financial considerations or other tangible reasons. After all, they had argued within the space of a paragraph that fast battleships were less effective than battlecruisers and battleships at their missions *and* that these less-effective ships would force the scrapping and rebuilding of the entire battle fleet. Just beneath the surface of this argument, and indeed much of the Board's discussion of battlecruisers, was their intense belief in rigid class distinctions based on armor, firepower, and speed. The Board had made it clear that battleships were powerful, heavily armored ships, with little need for speed, but battlecruisers had become a key part of this worldview. A decade earlier, this uncompromising view of naval design led the Board to reject battlecruisers as an unnecessary frill. Now it was being marshalled in favor of keeping the design of those same warships as pure as possible. Battlecruisers, then, were ships marked by their speed and firepower, and any deviation from this ideal battlecruiser was inherently flawed.

Although Earle made another pitch for fast battleships in August, the Board remained steadfast, and retained the battleship/battlecruiser split in their annual construction memo.²¹

²⁰ General Board to Daniels, July 6, 1918, 7.

²¹ BuOrd (Earle) to Benson, August 2, 1918, M1140, Subject 137-2.

Specifically, the Board asked for 12 battleships, 16 battlecruisers, and 6 aircraft carriers to enter the fleet by 1925, on top of the still-uncompleted ships from the 1916 program.²²

Rather than backtracking on battlecruisers, the Board's suggested building program evinced a stronger support for the type than they had previously expressed. The 1916 program was laid out in accordance with the 1:4 battlecruiser/battleship ratio the Board had arrived at in 1912 (four battlecruisers for the 17 extant battleships and two battlecruisers for the 10 new battleships), while the Board's new suggestions would have pushed the overall ratio much closer to 1:2. *Hood* and the prospect of a war in the vast Pacific with Japan may have made the Board desirous of more fast ships with big guns.

From the late summer of 1918, the Board was opposed by OpNav's own planning section, started by veterans of Sims's organization in London. That August, Benson and Pratt repatriated H.E Yarnell from Sims's Planning Section to form a similar group in OpNav. Soon, he was joined F.H. Schofield and Dudley Knox from Sims's staff, along with other talented officers.²³ Before Yarnell left London, he, Knox, Schofield, and the Planning Section's Marine representative drafted a memorandum on how a similar organization in Washington should be organized.

The resultant report bore the unmistakable imprint of the War College practices instilled in the Planning Section's members. The members of the Washington office would, of course, be War College trained "as far as practicable." That office, of fifteen officers, should be organized into committees to policy, strategy, tactics, logistics, and education. As at a Summer Conference or Long Course, individual committees would be given a

²² General Board Memo 420-2 for FY 1920, September 10, 1918, M1140, Subject 138-3.

²³ Edward S. Miller, *War Plan Orange* (Annapolis: Naval Institute Press, 1991), 82.

“problem,” and then provide a solution to the other committees. If that solution withstood scrutiny, it would then be given over to the Chief of Naval Operations.²⁴

The eventual organization resembled the London Planning Section’s report, and marked a watershed in OpNav’s development. Although Pratt had tried to create something similar in the months before April 1917, American entry into the war forced his planning staff into administration. To fill the gap, the War College offered to create a planning group before it was shuttered for the duration. Of course, the General Board jealously guarded its prerogatives, and assured OpNav that policy and planning were under the Board’s remit.²⁵ By creating his own planning department, Benson ensured that OpNav could develop policy as well as carry it out.

This group of, as Yarnell put it, “a considerable number of capable youngsters . . . full of vim and vigor,” had two major advantages over the General Board.²⁶ The first was in training. OpNav had at its disposal a number of officers with recent training in the War College’s Long Course, while the General Board had none. These officers included, after the war, the core members of the London Planning Section. The new planning section also had the advantage of considering policy in concert with tactics, education, and logistics, which were all controlled by OpNav rather than the General Board. In short, OpNav’s planning efforts had the benefit of a well-trained staff and an intimate knowledge of the whole of naval administration.

²⁴ Knox, Schofield, Yarnell, and Dunlap, “Memorandum No. 45: Organization of a Plans Division for Navy Department,” August 10, 1918, *Planning Section*, 311-18.

²⁵ Miller, *War Plan Orange*,

²⁶ Robert Greenhalgh Albion, *Makers of Naval Policy 1798-1947*, ed. Rowena Reed (Annapolis: Naval Institute Press, 1980), 90.

These advantages shone through in one of their early tasks, the development of an OpNav building program. Based on “a careful study of the General Board’s argument in favor of the two types,” the ABCD memo, and foreign construction, the committee determined that the General Board’s plan was insufficient. Instead of building 28 capital ships split between battlecruisers and dreadnoughts, the committee felt the U.S. Navy’s needs would be better met with 27 of the type C fast battleships proposed in the ABCD memo, with construction to finish by 1923, rather than the Board’s already-optimistic date of 1925. The Planning Committee argued that this homogenous force would be faster than almost all foreign battlecruisers, while sporting more guns and armor than the vast majority of extant or planned foreign battleships. It is true that the OpNav plan would have cost about \$200 million more than the Board’s (using the General Board’s unit cost estimates from their response to the ABCD memo, the cost would run to approximately \$995,328,675, as opposed to \$777,396,300), a considerable gap equivalent to the cost of two years of the 1916 program, but financial realities had historically exercised little impact on the Board’s own programs. At any rate, *both* programs were so out of line with Congress’s willingness to pay as to make financial factors irrelevant.²⁷

Sims also entered this debate, sending a November 14 letter to the Navy Department that repudiated his earlier pro-battlecruiser views, and again suggested that the United States follow the *Hood* model. His previous suggestion to that end, made in the middle of the year, assumed that *Hood* was a battlecruiser, and that if an American *Hood* were built it would be built alongside a heavier, slower, battleship. Now, however, Sims followed the type C partisans in arguing that the *Hood* model could replace both types, based on British

²⁷ Rear Admiral [Josiah McKean], Captains Waldo Evans, William Veazie Pratt, and H.E. Yarnell, “Building Policy,” October 7, 1918, M1140, Subject 100-23.

experience: “The HOOD Class are referred to officially as Battle Cruisers, but since the date of their design it is a notable fact that no design of a Battleship has been prepared by the Admiralty.” The British officials Sims talked to, including Grand Fleet commander David Beatty and Director of Naval Construction Eustace D’Eyncourt, viewed the American battlecruisers as “a grave mistake . . . they feel we have not fully grasped . . . the outstanding lesson of the Battle of Jutland,” which they saw as the necessity for heavier battlecruiser armor. Those same sources all agreed that *Hood* could perform as a battleship, and would be the pattern for subsequent construction.²⁸

Sims’s arguments were backed up by a paper on the ideal construction program from the London Planning Section, commissioned on the express orders of Benson, who wanted “definite recommendations” that he could forward to Daniels from his perch in Europe. As per their normal practice, the Planning Section, now composed of Captains Schofield, Knox, and Luke McNamee, who switched places with Yarnell a few weeks prior, began with first principles, copied from their May memorandum on the same subject:

The Navy of the United States shall be a self contained organisation [sic] designed to exercise, in the Pacific, a commanding superiority of naval power, and, in the Atlantic, a defensive superiority of naval power, against all potential enemies who may seek to extend their sphere of influence over, or to impose their sovereignty on, any portion of the American continent or islands contiguous thereto.²⁹

Although that goal remained, the main enemy was no longer a German-Austrian-Japanese alliance, but Britain. As the memorandum presciently predicted: “[a]ny additions made to the British Fleet must be made with reference to the United States as a possible enemy. Any

²⁸ Sims to Secretary and CNO, November 14, 1918, M1140, Subject 137-5.

²⁹ Captains Knox, Schofield, and Luke McNamee, “Memorandum No. 67: Building Programme,” Box 42, William Shepherd Benson Papers, Library of Congress, Washington, DC, 1-2.

additions United States Fleet must be made with reference to Great Britain as a possible enemy.”³⁰

With that in mind, the memorandum suggested that “we cannot afford to give too much weight to current British opinion.” Instead, the U.S Navy would have to “decide now from our own judgment of experience and tendencies what type of capital ships we should build.” With battleships, the Planning Section argued that the key goal was to outshoot the Grand Fleet, instead of outrunning. To that end, they suggested maintaining the American tendency towards heavily armed and armored battleships, even at the cost of some speed. Eventually, the speed of American battleships would need to reach 25 knots, but that was not an immediate concern.³¹

For speed, they turned to their battlecruiser design from May, a 32.5-knot ship with eight 16” guns and 12” armor. Although this ship had fewer guns than OpNav’s preferred type C fast battleship, the memorandum implied that the speed gained would be of great assistance in their primary mission of chasing down enemy cruisers and battlecruisers, while the armor would allow them to participate in fleet actions. At any rate, the London Planning Section suggested an immediate building program of six battleships, six battlecruisers, and forty-eight scouts with the speed to keep up with the battlecruisers. Other construction would follow based on British intentions.³²

Despite these dissensions, the General Board won this particular dispute, with Daniels putting forth a second three-year ten battleship/six battlecruiser program in late 1918;

³⁰ Knox, Schofield, and McNamee, “Building Programme,” 6.

³¹ Knox, Schofield, and McNamee, “Building Programme,” 12-14.

³² Knox, Schofield, and McNamee, “Building Programme,” 15-20.

a victory for capital ship bifurcation if not the Board's specific plan.³³ Interestingly, though, Daniels was himself opposed to the Board's stance on fast battleships. In late October, Benson informed Pratt that Daniels had hoped to put at least a squadron of the type C fast battleships into the departmental budget.³⁴ This was based on Benson's own advice, suggesting that he was convinced by the OpNav Planning Committee's arguments in favor of fast battleships.³⁵

Benson wrote Pratt from Paris, where he had accompanied President Wilson's advisor Edward House to negotiations amongst the Allies about structuring the Armistice. Benson remained in Paris until June of 1919. Although he maintained a hand in naval administration, especially on large questions of policy, day to day, the service was effectively run by his deputy, Pratt to January 1919 and, after Pratt left for the fleet, Rear Admiral Josiah S. McKean.³⁶ Although both men were competent—especially the brilliant Pratt—neither had Benson's rank or authority in the Navy's internal deliberations. As the Navy turned to consider the lessons of the First World War, the most powerful advocate for the new OpNav staff was missing.

Perhaps Benson's absence also goes some way to explaining Daniels's failure to act on his desire to put type C fast battleships in the Navy Department Budget. His decision is still somewhat baffling. By late 1918, the CNO and his staff, Sims and the London staff, the technical bureaus, and the Secretary of the Navy supported the type C battleship—the

³³ Daniels, "Annual Report of the Secretary of the Navy," December 1, 1918, 32.

³⁴ Benson to Pratt, October 21, 1918, Folder 2, Box 16, Pratt Papers, NHC.

³⁵ Mary Klachko, with David Trask, *Admiral William Shepherd Benson: First Chief of Naval Operations* (Annapolis: Naval Institute Press, 1987), 156.

³⁶ Klachko, *Benson*, 120-154.

service's entire political, strategic, and technical apparatus except the shuttered War College and the recalcitrant Board. It is true that the General Board had historically been the final uniformed authority on yearly construction plans, but that role was not statutory, and had never been construed to imply an obligation on the part of the Secretary to follow it. The final decision on the Navy's construction program remained in the hands of the Secretary, subject to Congressional approval and modification. In the years since the Board's first construction memorandum in 1903, successive Secretaries had seen fit to modify or ignore the Board's suggestions, though not, admittedly, to the point of modifying the types themselves.

This support came not just from the subordinate technical bureaus and a CNO widely regarded as the Secretary's creature, but from officers like Sims, who detested Daniels (the next year he tried to keep his wife from visiting him in Europe if it meant coming with Daniels's peace conference delegation). If he had so desired, Daniels could have used this backing to strike at the General Board's influence—perhaps a fair payment for five years of undermining and backbiting on their part.³⁷ From a modern perspective, it would be fair to argue that the shape of the building program more properly belonged to the OpNav staff instead of the General Board, which was essentially the same setup as prevailed in Britain. Perhaps Daniels, always wary of a "Prussianized" naval staff, wanted to avoid granting OpNav any more power, or felt that a fight against the General Board before Congress was unwise. Whatever the reason, the opening rounds of the fast battleship fight certainly belonged to the General Board on points.

³⁷ Sims to Pratt, February 7, 1919, Folder 5, Box 16, Pratt Papers.

As soon as Benson heard news reports of the new building program, he dashed off a cablegram to Daniels, bemoaning the Secretary's "grave error." Benson pointed to the proposals from the technical Bureaus, Sims, and OpNav for support. He almost noted that the performance of lightly armored battlecruisers forced "the complete change of British policy after the battle of Jutland." To avoid a similar shock, and to increase the utility of the American fleet, Benson stopped just short of demanding that Daniels rescind his budget and submit a construction plan of 16 type C battleships to Congress while also asking for funds to convert as many of the 1916 ships as possible to that standard.³⁸ Later that month, he again urged Daniels to reconsider. Battle cruisers, he said, "may fill a certain need," but their construction costs were "a great deal of money to be putting into a vessel we are not certain about and a type that all foreign countries have abandoned."³⁹

Benson's cable also expressed certainty that "those who have been in most intimate contact with the lesson which should be drawn from this war," would agree with the fast battleship position.⁴⁰ Here, Benson proved correct. While OpNav continued to carry the fast battleship banner, their case was bolstered by officers who spent the war in operational posts, now free to turn their attention to the future. The first of these was Sims's letter from November. He was later joined by Henry T. Mayo, wartime commander of the Atlantic Fleet, and Hugh Rodman, commander of the battleship squadron that joined the Grand Fleet in Scotland. Their prodding caused the issue to snowball as more authors, weighed in with

³⁸ Benson to Daniels, January 5, 1919, Box 11, Benson Papers.

³⁹ Benson to Daniels, January 23, 1919, Box 11, Benson Papers.

⁴⁰ Benson to Daniels, January 5, 1919.

articles in the naval and popular press. All of this took place against the background of the peace talks in Paris and the specter of a postwar Anglo-American-Japanese naval arms race.

In front of the House Naval Affairs Committee, three General Board members—Rear Admirals Badger, Fletcher, and Winterhalter—presented a united front in favor of battlecruisers. Badger called the ship a “glorified scout . . . well able to perform other combatant services,” like torpedo attacks on enemy battleships, while pointing to the Falklands and Jutland as proof of their utility. Badger also went on to note that the General Board had considered fast battleships over the summer and Badger dismissed them in substantially the same language the Board used in their response to the ABCD memo.⁴¹

Within the Navy and in front of Congress, Mayo and Rodman argued against the Board’s viewpoint. Instead, the two men argued for the cancellation of battlecruiser and battleship construction, and a switch to the fast battleship model. Though not in contact with the Royal Navy in the normal course of his duties, Mayo had traveled to Britain during the war, and he came back from his last trip convinced that the U.S. Navy needed to build aircraft carriers for scouting purposes.⁴² By January 1919, Mayo was claiming that carriers and new light cruisers along the lines of the British *Hawkins* obviated the need for battlecruisers to scout. Their light armor made them “inefficient in a major engagement,” suggesting that there was no rationale for building them.⁴³ Indeed, in front of Congress Mayo wrongly claimed that the stated rationale for American battlecruiser construction in 1916 was based exclusively on fear of German ships of that type. At any rate, he urged that the four

⁴¹ House Naval Committee, “Statement by Rear Admiral Charles J. Badger, Accompanied by Rear Admiral Frank F. Fletcher and Rear Admiral Albert G. Winterhalter, of the General Board of the Navy,” December 12, 1918, 495-6.

⁴² Mayo to OpNav, November 1, 1918, *Anglo-American Naval Relations*, 355.

⁴³ Admiral Henry T. Mayo to Secretary Daniels, January 20, 1919, M1140, Subject 137-5.

battleships and six battlecruisers yet to be laid down from the 1916 act be converted into ten *Hood*-type fast battleships.⁴⁴

Rodman's conclusions were substantially the same, albeit with a different rationale. Rather than viewing battlecruisers as newly unnecessary, Rodman argued that battlecruisers were necessary but had "a tendency to merge and come in toward one type" with battleships.⁴⁵ Their critical missions, then, could be fulfilled by a ship type that also bolstered the U.S. battle line. Speaking before the General Board several days later, he further claimed that a fast battleship could "do the work just as well as a battlecruiser and can resist an attack."⁴⁶

OpNav also weighed in on the side of fast battleships. Though content with the retention of the dreadnought philosophy for battleships, OpNav's Planning Section argued that the battlecruiser design was fatally flawed. It lacked the armor to contend with either its Japanese opposite number, the *Kongo*-class, or Japanese battleships. Unlike the Board, the staff believed that battlecruisers were impossible to justify without an ability to fight enemy battleships on reasonable terms. As one of their memoranda put it, the American ships were "simply huge destroyers, entirely unable to be placed in the line of battle. Nor can it be understood how they can engage . . . the Japanese battle cruisers with double the thickness of armor." Still believing in the need for battlecruisers in the U.S. Navy, persisting with the same design, they argued, would "be a blunder of the first order . . . this design of battle cruiser is not the answer." If possible, they urged, the battlecruisers ought to be replaced with

⁴⁴ House Naval Committee, "Statement of Admiral Henry T. Mayo," January 30, 1919, 1131-6.

⁴⁵ House Naval Committee, "Statement of Rear Admiral Hugh Rodman," January 3, 1919, 1025-7.

⁴⁶ General Board Hearing, January 18, 1919, *Proceedings and Hearings of the General Board*, Roll 12.

either the “C” or “D” fast battleships. Failing that, the extant battlecruiser design needed far more armor.⁴⁷

In May, the Planning Section again proposed their own building program, suggesting a program of 21 battleships and 10 “fast battleships,” presumably the technical bureaus’ C type design from the previous year. The plan represented something of a change from their 1918 request for 27 type C fast battleships and the end of “traditional” battleship or battlecruiser construction.⁴⁸ It is true that the Planning Section’s interventions into the post-Armistice debate evinced less hostility to bifurcation, their ire tending to focus on the supposed failings of the Board’s battlecruisers. However, it seems reasonable to assume that the main cause of the revision was cost, with the fast battleship designs about 125% as expensive as the type A battleship.⁴⁹

This debate was covered at length by the specialized naval press. Along with an inconclusive editorial, *Sea Power* published an unsigned article (suggesting that the author was a serving officer) which argued that the current craze for fast battleships ran counter to the precepts of Mahan, who warned against an undue focus on speed over firepower.⁵⁰ In the general press, *Scientific American*, a frequent entrant into debates of naval design, pushed for fast battleships in their May 5 issue, noting that the most prominent uniformed supporters of fast battleships spent the war in active service abroad, while their detractors had remained in

⁴⁷ Captain H.E. Yarnell, Memoranda to the Chief of Naval Operations, February 13, March 29, and April 2, 1919. Microfilm M1140, File 110-17, NARA Washington.

⁴⁸ OpNav Planning Section memo, December 1919, M1140, Subject 138-3.

⁴⁹ General Board to Daniels, July 6, 1918, RG 80, Box 83, C-34:4, 7-8.

⁵⁰ “Editorial: What Sort of Capital Ship,” and “The Coming Ship of the Line,” *Sea Power*, April 1919, 250, 253.

the U.S.⁵¹ Likewise, *The New York Times* published two articles on the issue in March, one falsely claiming that that Daniels “has not taken sides in the dispute, nor have his three chief technical advisers.”⁵²

The most interesting piece on the debate, though, came from Constructor C.F. Eggert in the May issue of *Proceedings*. In a piece rather at odds with his Bureau’s stated positions, Eggert argued that, at modern combat ranges in excess of 16-20,000 yards, battlecruisers could indeed fight battleships at reasonably equal terms, since neither battlecruisers nor dreadnought battleships had adequate protection against plunging fire. Given that impossibility, Eggert suggested doing away with battlecruiser armor altogether and instead mounting a greatly increased battery—twelve 14” or nineteen 12” guns—allowing them to fight dreadnoughts at long range with an equality or superiority of firepower. With this shift, Eggert foresaw an American fleet with battleships handling close and medium range fire, with battlecruisers fighting in line, but a separate line several thousand yards further out.⁵³

This issue would not be decided in the press, however, either popular or technical. In early March, Daniels suspended work on the battlecruisers to allow for a full reconsideration of the type. The Board, unsurprisingly, remained resolute, but Daniels also brought the technical bureau chiefs with him on a trip to Europe. While there, the party met with their European counterparts, and toured new construction, including *Hood*. Earle, the head of BuOrd, suggested that British officers deliberately underplayed their support for

⁵¹ Unsigned Editorial, “Battleships of the Future,” *Scientific American*, May 5, 1919, Folder 4, Box 113, RG 8, NHC.

⁵² March 8 and 16 *New York Times* articles reprinted in April 1919 *Proceedings*, 657-63.

⁵³ Commander E.F. Eggert, Corps of Constructors, “The Battle Cruiser,” *Proceedings*, May 1919, 719-28. Eggert’s analysis also suggests the extent to which the “official” British response to the Jutland battlecruiser fiasco had been accepted within the US Navy.

battlecruisers in order to turn the Americans away from the *Lexingtons*, which frightened British planners. However, the Admiralty in early 1919, though admittedly anti-battlecruiser, had come to their conclusions honestly; as we have seen, they really were not in favor of the pre-*Hood* battlecruiser model.⁵⁴

When the bureau chiefs returned from Europe, Daniels called a special session of the General Board to settle the fast battleship/battlecruiser debate. Along with the Board, the session included the senior officers afloat and the bureau chiefs, although Benson was still in Paris. The course of the meeting itself is unclear, but by its end, a compromise had been forged. Rather than continuing with the initial design, or switching to a fast battleship paradigm and delaying construction even further, the conference declared that “the six battle cruisers now authorized be completed as expeditiously as possible, but with additional protection, particularly to turrets, conning towers, magazines and communications at the expense of a small reduction in speed.”⁵⁵

The conference’s statement was rather hazy on details, but as C&R began to modify the design, it was clear that the compromise was along the lines of their type B design from last summer’s memo. In exchange for a reduction in speed from 34.8 to 33 knots, the *Lexingtons* gained two more inches of belt armor and nearly double the armor protecting the conning tower and turrets.⁵⁶ The deck armor was also strengthened, giving the ships a minimum of approximately five inches of horizontal protection over the magazines and

⁵⁴ Friedman, *U.S. Cruisers*, 99.

⁵⁵ Badger to Daniels, May 27, 1919, RG 19, E105: 22-CC1-6-2, NARA Washington.

⁵⁶ C&R to Daniels, June 19, 1919, RG 80, E19, piece 28645-64, NARA Washington.

propelling machinery. Lastly, the beam was increased, giving constructors space for more elaborate anti-torpedo and mine protections.⁵⁷

As we have seen, Stanley Goodall, the British naval constructor seconded to the U.S. Navy Department during the war, had a good working relation with his hosts. Privately, though, he despaired about increasing American naval power and the hardening of attitudes towards Britain. Soon after the war, he wrote his supervisor, Eustace D'Eyncourt, the DNC, with his impressions of the United States, darkly warning that “there are movements here which gravely endanger the future of the British Empire.” Not only did Goodall believe that the large German-American population and the financial sector contributed to an anti-British mood, but the U.S. “means to have a big navy,” potentially a mortal threat to the British Empire.⁵⁸

Specifically, Goodall was worried about the second ten battleship/six battlecruiser construction program before Congress, and asked D'Eyncourt if he could return to Britain, to brief members of the British delegation to the Paris Peace Conference. As it happened, British negotiators at the conference were able to blunt some of the threat from the United States, trading British support for the Monroe Doctrine and the League of Nations in exchange for an American promise to cancel the second large Navy bill. Still, that agreement

⁵⁷ Trent Hone, “High Speed Thoroughbreds: The US Navy’s *Lexington* Class Battle Cruiser Designs,” *Warship 2011* (London: Conway, 2011), 24.

⁵⁸ Stanley V. Goodall to Eustace D'Eyncourt, November 21, 1918, DEY/20, Caird Library, National Maritime Museum.

left the prospect of sixteen new American capital ships entering the U.S. fleet in the next few years, each newer and more advanced than anything in Britain save for the under-construction *Hood*.

In truth, the financial pressures of dealing with a hostile United States were an even greater concern than the strategic consequences of the American navy. In that sense, the question of responding to American strength was purely academic. Even before the April agreement at Versailles, the Admiralty was forced to cancel construction of the remaining three *Hoods*, leaving the Royal Navy with only one post-Jutland ship under construction, and that a hastily-redesigned battlecruiser.⁵⁹ Simply put, Britain could not afford to maintain naval supremacy with new construction. After the Treaty of Versailles was signed in June, the Cabinet adopted a series of strategic policies intended to keep the military budget in check. In addition to an assumption that war would not come in the next ten years, the Cabinet also set a cap of £135 million on military spending, forcing a round of military belt-tightening.⁶⁰ The Admiralty was restricted to a budget of £60 million; comparable to the last sets of prewar budgets.⁶¹

Like Goodall, British policy towards the United States was conflicted. This attitude is best summed up in in a July 1919 memorandum from M.P.A. Hankey, the CID's influential Secretary. Hankey found the prospect of a war with the United States "almost unthinkable," and he was further convinced that Britain could not possibly win such a war. Hankey

⁵⁹ Admiralty Board minutes, February 27, 1919, ADM 1/9226, TNA.

⁶⁰ Ferris, *Men, Money and Diplomacy*; 22, 216-17. The actual Estimates did not approach these figures until 1922-23, because the immediate postwar Estimates "were swollen by very large charges for war aftermath, operational and Middle Eastern expenditures."

⁶¹ Extract from Admiralty Board minutes, August 18, 1919, DEY/21, NMM.

advocated maintaining at least naval parity with the United States, however suggesting that British security could not be maintained with anything less.⁶²

Walter Long, the new First Lord of the Admiralty, did not share Hankey's view. In August 1919, he assured the Prime Minister that he had spent his time "engaged in pressing reductions and economies upon all Branches. . . . I am very hopeful that the result of this will be very large reductions."⁶³ Shipbuilding, as a major contributor to the budget, bore the brunt of this austerity drive. Eustace D'Eyncourt, the Director of Naval Construction, was forced to suggest in September that, rather than focus on building ships, his department should produce a yearly set of designs "embodying all the latest improvements" in naval science. These designs would not necessarily be built, but by providing the Board with constantly updated sets of modern designs, it was hoped that the Navy could prepare for modern construction when budgets loosened.⁶⁴

The problems facing Britain did not end on the other side of the Atlantic. Towards the end of the First World War, the War Cabinet again took up the issue of imperial defense in the Far East. An initial Admiralty proposal to create a single Imperial Navy in May 1918 was quickly shot down by Dominion ministers, but the Admiralty continued to consider the best way to defend Hong Kong, Malaya, Australia, New Zealand, and the valuable sea lanes connecting them to the metropole through the immediate postwar period.⁶⁵ Like Fisher nearly

⁶² M.P.A. Hankey, "National Policy," July 1919, in *The Collective Naval Defence of the Empire, 1900-1940* (London: Navy Records Society, 1997), 249-50.

⁶³ Walter Long to David Lloyd George, August 23, 1919, Add. 62424, Walter Long Papers, British Library.

⁶⁴ D'Eyncourt to Admiralty Board, "Future Provision for Keeping Fully Prepared," September 8, 1919, DEY/21, NMM.

⁶⁵ Minutes of the Imperial War Cabinet, June 27, 1918, *Collective Defence*, 230-2.

a decade earlier, many of the proposed solutions centered on battlecruisers as a type of large ship uniquely suited for distant operations in conjunction with light forces.

Battlecruisers also had the added benefit of cost-effectiveness. Battleships, designed for use in squadrons and fleets, would have required an immense financial outlay for effective duty in the colonies. At the very least, berthing facilities east of Suez would have needed a major expansion to handle any appreciable number of battleships at once. At any rate, slower battleships were hardly the ideal sort of warship for the sea lane protection envisioned as the Royal Navy's main mission outside of Europe. On the other hand, the battle of the Falklands had proven that one or two battlecruisers could effectively hunt cruisers and, with their great speed, could remain based in or around Britain. Indeed, a document from the naval staff on the expansion of Empire oiling stations, written in late October 1918, suggested that a unit of two battlecruisers and six light cruisers could be used as a sort of standard contingency force for emergencies in in the South Atlantic, Indian Ocean, East Indies, and Pacific.⁶⁶

At least some in the Admiralty considered stationing a British battlecruiser in the Asia-Pacific region alongside HMAS *Australia*. A memorandum for First Lord Walter Long from February 1919 suggests that a preliminary decision had been made to station a British squadron of one battlecruiser, five light cruisers, eighteen destroyers, and twelve submarines in the Far East. This was, the memorandum assured Long, "sufficient to safeguard the interests of the Empire in those waters," at least as long as the Japanese alliance remained intact.⁶⁷

⁶⁶ G.H. Ashdown, Captains [Charles Goode or Alfred Pound], and Alan Hothman, "Proposals for Oiling Stations for British Men-of-war and Merchant Ships Abroad," October 31, 1918, *Collective Defence*, 236.

⁶⁷ [M.N.?], memorandum for Long, February 25, 1919, *Collective Defence*, 245-7.

Although the Dominion governments had rejected the Imperial Navy proposal in mid-1918, they expressed a desire for a Royal Navy representative to visit, and make recommendations as to the future of their naval establishments.⁶⁸ Admiral Jellicoe, out of a job after the war, was picked to be that representative, one suspects, out of a desire to remove him from Britain for an extended period.⁶⁹ Whatever the cause, Jellicoe left on his fact-finding mission in mid-1919 with a remit to “confer with and advise the Dominion Authorities on Naval Matters.”⁷⁰

Jellicoe returned from the trip with a report written with his characteristic intelligence and commitment to detail. Despite victory in the recent war, Jellicoe’s report urged the bolstering of British naval strength in the Western Pacific. Instead of “fleet units,” he called for a combined British-Australian-New Zealander “Far Eastern Fleet,” representing a significant portion of postwar Imperial naval strength. With eight battleships and eight battlecruisers of “modern” (that is, post-Jutland, apart from HMAS *Australia*) type, ten light cruisers, forty destroyers, thirty-six submarines, and four aircraft carriers, this was to be a fleet capable of protecting the Far East without reinforcement from home waters.⁷¹

One might imagine that this robust fleet was intended to protect British possessions from the Americans, but Jellicoe’s report made it clear that the anticipated enemy was Japan, and the eight battleship/eight battlecruiser Far Eastern Fleet derived from Japan’s similar “8-8 fleet” building program. While acknowledging Britain’s alliance with Japan, Jellicoe saw

⁶⁸ Admiralty, “Naval Defence of the British Empire [draft],” September 1918, *Collective Defence*, 233.

⁶⁹ See Chapter 16 of John Winton, *Jellicoe* (London: Michael Joseph, 1981) for a full narrative of the trip.

⁷⁰ First Lord Geddes to War Cabinet, “Proposed visit of Lord Jellicoe to the Dominions and India to Advise on Naval Matters,” December 17, 1918, *Collective Defence*, 241.

⁷¹ Jellicoe, “Report of Admiral of the Fleet Viscount Jellicoe of Scapa on Naval Mission to the Commonwealth of Australia (May-August, 1919),” Volume I, Jellicoe Mss. 49048, British Library.

them as a revisionist power, and foresaw inevitable conflict between the two countries due to economics and restrictive immigration policies in Australia and New Zealand. Preparing for a Japanese war would also require a major investment in naval infrastructure east of Suez, where there were no berthing facilities for the most modern capital ships.⁷²

Jellicoe's suggestions had dramatically overstepped the bounds of his appointment, which made no mention of strategic or diplomatic suggestions. His pessimism concerning Japan, though shared by some in the Admiralty, could hardly become the basis of British policy towards a country that—barely—remained a treaty ally. First Sea Lord Rosslyn Wemyss, especially, “was appalled by Jellicoe's presumption.”⁷³ The focus of policymakers in 1919-20 was the United States, a potentially apocalyptic threat to British naval supremacy, the bedrock of British power.⁷⁴

As a result, the postwar fleet organization closely tracked the Europe-heavy prewar disposition, albeit with fewer ships—sixteen battleships and four battlecruisers. By 1920, there were three battle squadrons: two in the Atlantic Fleet in home waters (the *Queen Elizabeth* and “R” class battleships), and one in the Mediterranean (the *Iron Dukes*). The four battlecruisers (*Hood*, *Tiger*, *Repulse*, and *Renown*) were attached to the Atlantic Fleet. Each fleet maintained one carrier. Despite grandiose plans for stationing fleets in the Far East, the only large ships east of Suez were the carrier *Ark Royal*, and the eponymous dominion's HMAS *Australia*.⁷⁵ The Navy was certainly interested in placing more in the region, but the

⁷² Jellicoe, “Report on Naval Mission,” Volume IV, Jellicoe Mss. 49051.

⁷³ James Goldrick, “Admiral Sir Rosslyn Wemyss,” in *The First Sea Lords*, ed. Malcom H. Murffet (Westport, CT: Praeger, 1995), 121.

⁷⁴ Ferris, *Men, Money, and Diplomacy*, 54-63.

⁷⁵ Charles N. Robinson, “The British Navy,” in *Brassey's Naval and Shipping Annual. 1920-1.*, eds. Alexander Richardson and Archibald Hurd (London: William Clowes and Sons, 1920), 5-7.

money for ships, crews, and expanded shore establishments was lacking, and none could be spared with an increasingly hostile United States just across the Atlantic.

Against this background, the Royal Navy began to assess the war and discuss the future of their fleet and naval construction. Although shrinking budgets may have made new ships impractical, this did not stop serious debate over what Britain should build if construction ever restarted. Understandably, much of this discussion and speculation centered on the eventual fate of the battlecruiser. Not only had British battlecruisers delivered a very mixed performance in the recent war, but *Hood* suggested that battlecruiser speed could be maintained in a more heavily armored ship. At the very end of the war, William Sims had spoken to a number of British officials, including Beatty, on the subject of HMS *Hood*, and all seemed to indicate that they saw the new ship as the future of capital ship construction. If battlecruisers were to survive in British planning, it was clear that a new paradigm was needed.⁷⁶

One of the few things all could agree on by early 1919 was the unsuitability of the battlecruisers possessed by the British at the beginning of the war and the battlecruisers produced during it. Beatty, of course, had identified problems with his “bloody ships” at Jutland, presided over a BCF battlecruiser inquiry, and minimized their exposure upon taking command of the Grand Fleet. Jellicoe, who released a book on the Grand Fleet in early 1919, claimed that at the time of Jutland British battlecruisers “were very inadequately protected by armour.”⁷⁷ Coming from a man who had been on Fisher’s original “Dreadnought” committee

⁷⁶ Sims to Secretary Daniels and Admiral Benson, November 14, 1918, subject 137-5, M1140, 5-6.

⁷⁷ Jellicoe, *The Grand Fleet, 1914-1916: Its Creation, Development and Work* (New York: George H. Doran Company, 1919), 305. Jellicoe appears to have suffered from selective amnesia while writing this book. On p. 304, he asserted that battlecruisers “were designed and built in order that they might . . . find the enemy for the Battle Fleet and to ascertain the enemy’s strength in order to report to the Battle Fleet.” This is certainly in

in 1904-5 and heavily involved in the design of *Lion*, this bit of revisionism rang rather hollow, as Director of Naval Construction Eustace D'Eyncourt pointed out in an acerbic commentary on the text.⁷⁸

Beyond sniping at Jellicoe, D'Eyncourt played a major role in the Navy's postwar design debate. Most immediately, the D.N.C.'s Department defended its prewar work, maintaining that the battlecruiser was an inevitable evolution of the armored cruiser pattern (D'Eyncourt came to the Admiralty too late to affect the design of the prewar battlecruisers). Not only could the D.N.C.'s office not be blamed for the original idea, but their designs were also impacted by "the insistent demands of the strategist for the highest speed obtainable."⁷⁹ D'Eyncourt did, however, distance himself from the five wartime battlecruisers, taking pains to note that they were built "on the initiative of Lord Fisher" in a speech before the Institution of Naval Architects in April 1919.⁸⁰

Looking forward, though, D'Eyncourt seemed to agree with Jellicoe and Beatty that it was perhaps time to move away from Fisher's battlecruiser ideal. In a July memorandum on the war's impact on warship design, D'Eyncourt suggested that a merger of the battlecruiser and battleship types had the potential to be "a more efficient unit" than either of the older types separately. At the same time that the U.S. Navy was deciding to stick with bifurcation, D'Eyncourt pointed out that a homogenous fleet of fast battleships would avoid a repeat of Jutland, with a formation of lighter ships going into combat without backup from the battle

keeping with Jellicoe's stated preferences, but it in no way reflected the purpose for which the ships "were designed and built," which Jellicoe must have known.

⁷⁸ D'Eyncourt, "Remarks on Lord Jellicoe's Book, 'The Grand Fleet,'" March 6, 1919, DEY/39, NMM.

⁷⁹ D.N.C. Department, "Capital Ships (1905-1914)," April 1919, DEY/40/2, NMM.

⁸⁰ D'Eyncourt, "Naval Construction During the War," speech for the Spring Meetings of the Institution of Naval Architects, April 9, 1919, DEY/40/1, NMM.

line. Despite the cancellation of its three sister ships, *Hood*, D'Eyncourt argued, remained the model for hybrid fast battleships, especially since its design was the largest that could be serviced at existing port facilities.⁸¹

In early 1919, a memo circulated around the Admiralty that made the case that Britain should avoid future capital ship construction. This argument rested both on the increasing sophistication of torpedoes and naval artillery and the grim prediction that outbuilding the United States in capital ships was impossible, leaving Britain with “the second best Navy,” which history had shown to be “not much use.” Instead, the memo suggested, the Royal Navy should focus on aircraft and submarines. By shifting the basis of British power onto these new types, the Royal Navy could avoid the worst consequences of inevitable capital ship inferiority and build a navy better suited for modern conditions.⁸²

Taken as a whole, the postwar debate over the future shape of the Royal Navy was rather more cacophonous than similar debates on the other side of the Atlantic, which revolved around comparatively minor differences over battleships, battlecruisers, and fast battleships. In an attempt to make some sense of this, the Admiralty created the Post-War Questions Committee in mid-1919 under the charge of Vice-Admiral Richard Phillimore, who had commanded a battlecruiser squadron and the Grand Fleet’s aircraft-carrying ships during the war. Phillimore and the other nine members of the committee were to “consider in the light of the experience of the war, the military uses and values of the different types of war vessels [and] [t]o report which types of vessels should compose the Principal Fleet on

⁸¹ D'Eyncourt, “Warship Design As Affected by Recent Experience During the War,” July 3, 1919, ADM 1/9225, TNA.

⁸² Admiralty memorandum, January 5, [1919], ADM 1/9226, TNA.

mobilization for war, and in what proportions they should be provided.⁸³ Before coming to their conclusions, the committee interviewed an array of officers off a standard set of questions that covered the length and breadth of warship design and its inputs, including a question that asked if battlecruisers were necessary in the future.⁸⁴ Although the similarity was surely unintentional, the process does remind one of the standard procedure for War College summer conferences at Newport.

The evidence taken by the committee suggested that support for capital ships remained robust in the Royal Navy, but battlecruisers were only grudgingly accepted. Broadly speaking, many of the officers interviewed suggested that the ships were a lamentable development, but necessary to counter foreign ships of the same type. Without the Japanese, and especially American, battlecruiser programs, the type would be unnecessary. One interviewee, Vice-Admiral Sydney Fremantle hoped that a construction freeze on the part of Britain would lead the type to “die out” as the Americans and Japanese lost the stomach for such expensive ships.⁸⁵ Somewhat surprisingly, there seemed to be little desire for building a single type of fast battleship.⁸⁶

The Committee’s final report echoed these concerns. Although their interim report, in late 1919, claimed, “the Battle Cruiser has quite justified her existence,” by the final version of the report, they had somewhat soured on the type, seeing them as a necessary evil.⁸⁷ In that

⁸³ Admiralty to Phillimore, June 12, 1919, RFP/13, Richard Phillimore Papers, Imperial War Museum, London.

⁸⁴ Post War Questions Committee: Evidence, *Precis & Index*, [1919-290], ADM 116/2060, TNA.

⁸⁵ “Post War Questions Committee: Evidence, *Précis & Index*,” 238-98.

⁸⁶ “Post War Questions Committee: Evidence, *Précis & Index*.” The bulk of the paragraph is a summarization of several hundred pages of evidence from this document.

⁸⁷ Post War Questions Committee, “Interim Report on Clause 1 of Terms of Reference,” December 19, 1919, ADM 1/8586/70, TNA, 1-2.

document, released in late March 1920, the Committee agreed with its interviewees that Britain “should not require” battlecruisers in the absence of foreign analogues. The Committee also agreed with wartime concerns that British battlecruisers were too light, suggesting design parameters more akin to *Hood* than *Repulse*. However, *Hood* was taken as a starting point for battlecruiser design, not capital ship design; the Committee took a firm stand in favor of bifurcation, laying out the case for a 23-knot battleship.⁸⁸

Despite their stark division between battleships and battlecruisers, the Committee’s suggestions for battlecruiser design would have placed the ship in the “fast battleship” category in the United States. The Committee declined to give specifics of armor, choosing instead to suggest armor between ten and twenty percent weaker than on their battleship, rather more armor than earlier generations of battlecruiser. Ideally, the ships would have eight guns of at least fifteen inches, and at least 33 ¼ knots speed—the speed of USS *Lexington*. Indeed, it is hard to escape the conclusion that the Committee’s parameters were specifically formulated to counter the six American battlecruisers.⁸⁹

The Post War Questions Committee, though, was simply an advisory body and, while it presented a fair survey of the officer corps’ viewpoint, especially those in the grades from captain to vice admiral, it was not the Admiralty, which approached the issue with a much greater commitment to staff work and doctrine than its prewar iteration. As we have seen, the war brought about great changes in the structure and work of the Admiralty staff. By war’s end, a great deal of operational authority had been concentrated in the hands of the First Sea Lord. Under Jellicoe the post of Chief of the Naval War Staff had been subsumed into that of

⁸⁸“Final Report of the Post War Questions Committee,” March 27, 1920, ADM 1/8586/70, 12-16.

⁸⁹ “Final Report of the Post War Questions Committee,” 12-16.

First Sea Lord, both removing an officer who could offer separate advice to the First Lord, and placing the First Sea Lord in more direct contact with staff work. Combined with reforms that removed most purely administrative functions from the First Sea Lord's remit, the office achieved a level of formal control that Fisher could only have dreamed of.⁹⁰

The Naval Staff had been a qualified success during the war, but peacetime presented very different challenges.⁹¹ At the very least, the war years had convinced the Royal Navy of the necessity of staff officers, although their numbers were cut after the War as part of Long's economy drive. More importantly, the wartime Naval Staff had focused most of its attention on operational matters. The postwar period also demanded skilled staff work, but more in the vein of training, preparing war plans and, of course, warship design. It was an open question whether or not the Admiralty's wartime structure could be adapted to meet postwar demands.

A serious attempt was made to push naval staff training in that direction, part of an effort amongst British reformers to refashion British naval education. American officers who worked with the Royal Navy came away impressed with the caliber of officer on their flag staffs, but reformers within the Royal Navy tended to disagree.⁹² For example, an August 1919 article in the *Naval Review* argued that the British staff system was hopelessly broken at the fleet and Admiralty levels. The staff officers themselves—"very nice chaps as a rule"—seemed to be picked more on their personal connection to a flag officer than "their

⁹⁰ See the previous chapter for more information as well as Nicholas Black's *The British Naval Staff in the First World War* (Woodbridge, UK and Rochester, NY: Boydell, 2009) and C.I. Hamilton's *The Making of the Modern Admiralty* (Cambridge, UK: Cambridge University Press, 2011), chapters seven and eight.

⁹¹ Black, *The British Naval Staff in the First World War*, 238.

⁹² "Report of Committee Composed of Executive Officers in Regard to Division Commander's Memorandum as to Offices, Compartments, Sleeping Spaces, etc.," [November?] 1918, subject 212-1, M1140.

original knowledge of, or aptitude for their work.”⁹³ Although the article’s author was rather unkind towards wartime staff officers—many of whom were quite distinguished—it was undoubtedly true that very few had adequate preparation for their tasks.⁹⁴ The solution the *Review* article identified was to treat staff work as a specialization akin to gunnery or torpedoes, so that select officers could receive training in and make a career out of staff work.⁹⁵

While the Admiralty was unwilling to go that far, changes were put in place after the war to improve the quality of staff work. First Sea Lord Rosslyn Wemyss, who had attended the War College twice, in 1908-9 and 1911, took the issue of staff education very seriously.⁹⁶ In April 1918, he had appointed Herbert Richmond to the new post of Director of Training and Staff Duties, and Plans. This was a marker of seriousness—appointing someone with Richmond’s views on training and staff duties could hardly be anything else—but Richmond was not able to do very much before his characteristically prickly demeanor forced his removal at the end of the year. Wemyss also presided over the elevation of the Admiralty’s Plans Division to a central role in developing naval policy. By the 1920s, First Sea Lords used the Plans Division as their “policy-making advisory staff.”⁹⁷

⁹³ Lieutenant Commander C.M. Rolleston, “The Higher Naval Education of Executive Officers in Relation to Staff Work,” *Naval Review*, August 1919, 276-81. The same issue also approvingly reprinted Bradley Fiske’s February *Proceedings* piece, “The United States Naval Institute.”

⁹⁴ A. Lambert, “History as Process and Record: The Royal Navy and Officer Education,” in *Military Education Past, Present, and Future*, eds. Gregory C. Kennedy and Keith Neilson (Westport, CT: Praeger, 2002), 98.

⁹⁵ “Higher Naval Education,” 281.

⁹⁶ A. Lambert, “The Naval War Course, *Some Principles of Maritime Strategy* and the Origins of ‘The British Way in Warfare,’” in *The British Way in Warfare: Power and the International System, 1856-1956: Essays in Honour of David French*, eds. Keith Neilson and Greg Kennedy (Farnham, UK: Ashgate, 2010), 246-50.

⁹⁷ Hamilton, *Making of the Modern Admiralty*, 267-70.

After the war, Wemyss led the way in creating a Naval Staff College at Greenwich to train officers for duties of that nature, providing a more specialized training to more junior officers than were typically admitted to the War College; mostly commanders and lieutenant-commanders.⁹⁸ The school was placed under the command of Captain Reginald Plunkett-Ernle-Erle-Drax, one of the *Naval Review's* founding members, and a veteran of the Battle Cruiser Fleet who had served on HMS *Lion* as Beatty's flag commander.

In an essay written for the 1919 edition of *Brassey's*, Drax laid out a radical plan for the reorganization of British naval education. In some ways, Drax's vision was of the merger of the best qualities of the American and British naval educational systems, adding the qualities of intellect and theory to the traditional R.N. virtues of character and practical work. He showed himself to be in favor of some increase in the theoretical training of officer cadets and midshipmen, though not at the expense of their intensive practical education aboard ship. Drax also stressed the need for a shared understanding of warfare throughout the service, arguing that “[a]n Admiral who has been a Gunnery Lieutenant should look at the big problems of war in exactly the same way as an Admiral who has been a submarine or signal officer . . . specialization is a means to an end and not an end in itself.”⁹⁹ Put simply, Drax called for a standardization of theory in the service that his American counterparts could take for granted.¹⁰⁰

⁹⁸ Arthur Marder, “The Influence of History on Sea Power: The Royal Navy and the Lessons of 1914-1918,” *Pacific Historical Review*, November 1972, 415.

⁹⁹ This should be read as a critique of Jellicoe's performance during the war. Jellicoe, of course, was a gunnery specialist, and during the war had been criticized for his tactical rigidity—Richmond called him a “mathematician”—based in part on his desire to keep the fleet concentrated to improve the impact of its firepower. Elsewhere in the paper, Drax expressed hope that in the future “[t]he gunner . . . would be the servant of the tactician, and would never attempt to become his master.”

¹⁰⁰ Captain Reginald Drax, “Naval Education,” in *Naval Annual 1919*, 239-45.

Drax's proposal relied on the production of manuals and training at the War and Staff Colleges to instill this understanding in the officer corps. The manuals, hopefully produced by the War College or Admiralty staff—"the best brains the Navy can produce"—would cover the entirety of naval warfare and administration, from strategy and the "functions of different types of warships," to "principles of . . . training." On top of this was an expanded role for the two colleges at Greenwich. All officers in the combat branches, he hoped, would have to take a 2-3 month "short course" at Greenwich immediately before or after the training that qualified them in their particular service branch, to ensure that every officer with the chance to command a ship received some high-level instruction in strategy.¹⁰¹

Additionally, the most promising candidates would be selected for the "long course" of at least twelve months, which would prepare them for "filling War Staff appointments at sea, in war or peace, and billets in the Admiralty Naval Staff." While Drax made it clear that he wanted to avoid a "'War College' clique," he hoped that the long course training would be seen as a positive for officers being considered for flag rank. However, the primary goal of this educational scheme was to provide the Royal Navy with a critical mass of trained staff officers to support commanders. To Drax, the moral qualities required for command were innate and not frequently found in combination with those qualities that made a good staffer. By supplementing the former with staffs of the latter, Drax hoped to combine those qualities in Admiralty and fleet leadership.¹⁰²

The similarities between Drax's proposals and the educational system in the United States Navy are striking and almost certainly intentional. However, he did not intend to copy

¹⁰¹ Drax, "Naval Education," 240-3.

¹⁰² Drax, "Naval Education," 240-5.

the American system. As he obliquely noted, the “War College clique” in the United States was influential, and viewed War College training as a prerequisite for *command*, not just staff work, a line of thought Drax rejected. He also sought to preserve much of the practical education in the British officer training system, rather than the U.S. Navy’s entirely academic approach. Still, his piece was an admission that something was very wrong with the intellectual formation of British officers. Great admirals may have come into the Navy with an ingrained air of command, but staff officers, contrary to prewar assumptions, required a rigorous training.

It is worth noting that Drax did not outline what principles that critical “understanding” should be based upon. The man best placed to do so was Herbert Richmond, now the head of the War College at Greenwich. Richmond had a great deal of experience as a staff officer, from a stint as one of Fisher’s assistants to two postings in the Admiralty during the war: A.D.O.D. from 1913-15, and Director of Training and Staff Duties in 1918. Richmond was also one of the founders and editors of the *Naval Review*, a journal that constantly agitated for advanced tactical and strategic thought in the Royal Navy.

In his postwar lectures, Richmond showed that he shared Drax’s concern about the state of tactical and strategic thought in the Royal Navy. Like Drax, Richmond expressed concern that the prewar training regime had created an officer corps that subordinated tactics to technical factors, especially “the demands of the individual gun” over the proper employment of an entire fleet. Strategy, Richmond argued, was more than opening fire first or at the longest ranges. Both goals, of course, had been obsessions of Fisher and Jellicoe during their careers.¹⁰³

¹⁰³ Rear-Admiral Herbert Richmond, “Tactics I,” in *Lectures at R.N. War College Greenwich. Spring Session 1920; Volume V: Tactics*, RIC/10/2, Caird Library, National Maritime Museum, 7-32.

Richmond, however, did not share Drax's enthusiasm for standardized doctrine, at least not on the strategic or tactical levels. Although he did recognize some very general principles—a preference for the offensive and a focus on the destruction of the enemy being the two dearest—he was generally opposed to the sort of all-consuming doctrine posited by Drax and practiced in the United States. Although Richmond made frequent use of Corbett and Mahan in his lectures, he warned that their principles stood the danger of becoming “mere catchwords, repeated without understanding . . . [w]e are not entitled to say that the action of a Commander was wrong because he violated some principle, unless we can shew [sic] that the violations produced evil results.”¹⁰⁴ Strategy and tactics, he argued, could be taught in a classroom, but strategists and tacticians could only be produced by experience.¹⁰⁵

At least for the immediate postwar period, Drax's vision won out. In early 1920, First Lord Long laid out a scheme of naval education that had much in common with Drax's musings from the previous year. No great changes were announced in the system for training officer candidates, but Long indicated that 25% of especially promising sub-lieutenants would be given extra university training, which would include a war course at Greenwich. Long also affirmed the importance of the Staff College, saying that the officers trained there would “ensure a common doctrine on strategical and tactical questions, the right application of the lessons of the past, and the ability to foresee the requirements of the future.”¹⁰⁶ Like Drax's suggestions, the “Americanization” of mid-career training only went as far as staff

¹⁰⁴ Richmond, “Strategy III,” in *Lectures*; Spring Session 1920, *Volume I; Policy and Strategy*, RIC/10/1, NMM, 22.

¹⁰⁵ Richmond, “Introductory Address,” in *Lectures; Volume I*, 8-10.

¹⁰⁶ First Lord Walter Long, “Statement of the First Lord of the Admiralty Explanatory of the Navy Estimates, 1920-1921,” March 1920, 6-11.

officers; nothing in Long's document suggested that staff officers were necessarily destined for *command*.

Despite these changes, progress would be difficult. Writing in his journal in late 1920, Richmond despaired of the raw material available to him at the War College. His students were "unable . . . to express themselves at all. They cannot analyse a situation. They cannot define their objectives in a given situation. . . . Yet these are our future guides in all high matters."¹⁰⁷ Essentially, senior officers in the immediate postwar period were doomed to failure measured against Richmond's standards. As Drax's essay emphasized, producing a better sort of officer was a project that began with cadets, and required periodic instruction throughout their careers. Although the Royal Navy would eventually improve the strategic and tactical grounding of their officer corps, the project would not bear fruit for a long time. Still, the belated recognition of the importance of staff work suggested that the Royal Navy recognized some of the intellectual problems that plagued the wartime effort.

In the United States, the internal wrangling over fleet composition was, though important, not the main factor affecting naval policy. Secretary Daniels may have brought the bureau chiefs with him to Europe in March 1919, but the real purpose of the trip was for Daniels to join Benson in the Paris Peace Conference, where naval issues had driven a major wedge between the American and British delegations, the latter viewing the American naval program with trepidation. British officials saw naval supremacy as the key to their national

¹⁰⁷ Richmond journal, November 10, 1920, *Portrait*, 365.

defense, and by 1918, it was clear postwar Britain lacked the financial capacity to win a naval arms race with a naval-minded United States.

Even before the war ended, the Admiralty had tried to dissuade the Navy Department from resuming capital ship construction.¹⁰⁸ Well aware of this British fear, the Wilson Administration pushed naval construction as a way to force British concessions in Paris. Although Daniels's budget called for a doubling of the 1916 bill, he and other Administration officials made it clear to a reluctant Congress that the threat of continued naval construction was key to the American negotiating position. Because of Administration pressure, the bill was rushed through the House Naval Affairs Committee by mid-February, albeit with a rider that no construction would take place before February 1, 1920. In other words, the Committee assumed, correctly, that the bill was intended to bring the British to the negotiating table more than to actually increase the size of the navy.¹⁰⁹

By March, when Daniels and Benson were in Paris, the parameters of the proposed bill were of great concern to their British counterparts. Soon after their arrivals in London, Daniels and Benson went through a series of stormy meetings with First Lord Geddes and First Sea Lord Wemyss, where the two admirals nearly came to blows.¹¹⁰ In early April, though, the British and American delegations had come to a gentleman's agreement on the shape of the American naval program: in exchange for British support for the League of Nations and the Monroe Doctrine, the Administration agreed to torpedo the new naval

¹⁰⁸ First Lord Eric Geddes to Assistant Secretary of the Navy Franklin Roosevelt, August 31, 1918, *Anglo-American*, 513-5.

¹⁰⁹ Harold and Margaret Sprout, *Toward a New Order of Sea Power: American Naval Policy and the World Scene, 1918-1922* (Princeton: Princeton UP, 1940), 63-5.

¹¹⁰ Stephen Roskill, *Naval Policy Between the Wars I: The Period of Anglo-American Antagonism, 1919-1929* (New York: Walker and Co., 1968), 53-4.

program and to slow further construction on the 1916 bill ships, especially the yet-to-be-commenced battlecruisers.¹¹¹

Although American politicians in Congress and the Executive Branch saw the proposed 1919 bill as a bargaining chip rather than a real blueprint for expansion, the Navy saw it as essential to American naval strength, and continued to agitate for more construction. The Planning Section's program of 21 battleships and 10 battlecruisers, for example, came just weeks after the April 9/10 agreements. Naval leaders remained focused on the real imbalances between the American and British fleets, imbalances that may have worsened with *Hood*, especially after the agreement. A September 9 talk by Lieutenant Commander H.H. Frost, a recent War College graduate, noted that in the event of war with Britain, the U.S. Atlantic Fleet would be forced to avoid action with its opposite number, granting the initiative to the U.K. Although Frost painted an admittedly rosy picture of the course of such a war, he freely granted that British naval superiority would be "overwhelming."¹¹²

Despite the obvious dangers of a war with the U.K., it had never been the focus of American planning, and any deal with them, though dispiriting from a materiel standpoint, was of secondary importance for the Navy. Japan received the lion's share of the U.S. Navy's attention after the destruction of German naval power in 1918. Before the First World War, U.S. Navy planning had tended to assume that Germany was the most dangerous realistic foe, but Japan the most likely, a pattern that held from 1918 on, with the British in place of the Germans. Like Wilhelmine Germany in the Atlantic, Japan was a revisionist power that

¹¹¹ Sprouts, *New Order* 67-8 and Roskill, *Naval Policy I*, 91. Roskill and the Sprouts disagree on the precise date of the agreement, the Sprouts claiming April 9 and Roskill the 10th.

¹¹² Lt.Cmdr. H.H. Frost, "Strategy of the Atlantic: Lecture delivered before the General Staff College," September 9, 1919, M1140, Subject 112-2, 7-18.

had proven to be rather aggressive in pursuit of influence and colonies, as recent wars with China, Russia, and Germany had shown; all three wars serving to expand the size of Japanese territory and increase its influence in East Asia and the Pacific.¹¹³

Furthermore, Japanese immigration was a major political issue in the United States, with the authorities and population at large in the Western United States treating Japanese immigrants with undisguised contempt. Both the legal barriers thrown in the face of immigrants and periodic waves of mob violence were, understandably, intolerable to the Japanese government, which had lodged a series of protests with the federal government over this treatment. Indeed, one of these issues—the segregation of Japanese students in the San Francisco school system had nearly led to war in 1906/7. Despite the Roosevelt Administration’s subsequent “Gentleman’s Agreement” with Japan, “Asiatic Exclusion” remained the bedrock of American immigration policy.¹¹⁴

The U.S. Navy was well aware of these issues. A Planning Section document from April 1919 called Japanese policy “frankly imperialistic,” and suggested that “Race prejudice. . . . Our [“open door”] policy in China. . . . [and] The Philippines,” were all potential triggers for war, and all more or less permanent issues that were resistant to negotiation or agreement. If that war came, the Planning Section argued that the Japanese fleet would be able to seize Guam and the Philippines, cut off U.S. trade with Asia, and launch attacks on Alaska before the U.S. Navy would be able to respond. Even after the

¹¹³See, for example, William Reynolds Braisted, *The United States Navy in the Pacific, 1909-1922* (Austin: University of Texas Press, 1971), Edward S. Miller, *War Plan Orange* (Annapolis: Naval Institute Press, 1991), and Gerald Wheeler, *Prelude to Pearl Harbor* (Columbia: University of Missouri Press, 1963).

¹¹⁴ William Reynolds Braisted, *The United States Navy in the Pacific, 1897-1909* (Austin: University of Texas Press, 1958), 188-93.

Navy was fully engaged, the prospects for victory with the extant fleet and Pacific facilities were remote.¹¹⁵

Among the issues noted by the OpNav staffers was the lack of a coherent war plan, detailed anti-Japanese planning being a casualty of the recently ended war.¹¹⁶ To that end, Benson instructed Sims, the newly reinstated President of the Naval War College, to focus the forthcoming course's attention on Japan.¹¹⁷ Along those lines, in mid-1919, Daniels authorized the creation of separate Atlantic and Pacific Fleets, each having about half of the Atlantic Fleet's original strength, a move Benson had suggested in December 1918.¹¹⁸ However, it became clear that the Pacific Fleet was now the Navy's premiere formation. The dreadnought battleships assigned to the Pacific were newer, partially due to the ready availability of oil and paucity of coal on the West Coast, although both fleets had an equal number of coal-burning pre-dreadnoughts.¹¹⁹ Moreover, it was widely understood that the six battlecruisers, when finished, would be stationed with the Pacific Fleet.¹²⁰

Such a departure from the Navy's 'til-then-standard insistence on a unified battle fleet mostly passed without serious criticism. One of the few exceptions was a rather intemperate editorial from *Sea Power*, which, falsely, claimed that the shift of warships to the Pacific was

¹¹⁵ OpNav Planning Section to CNO, "Japanese Situation," April 1919, M1140, Subject 100-15, 1-3.

¹¹⁶ "Japanese Situation," 2.

¹¹⁷ Benson to Sims, May 5, 1919, M1140, Subject 110-17. Oddly enough, the records from Newport show that the problems given to the class that started in June 1919 were almost evenly split between American engagements with the British ("Red-Blue") and Japan ("Blue-Orange"). Michael Vlahos, *The Blue Sword: The Naval War College and the American Mission, 1919-1941*, (Newport: Naval War College Press, 1980), 168

¹¹⁸ Mary Klatchko with David F. Trask, *Admiral William Shepherd Benson: First Chief of Naval Operations* (Annapolis, MD: Naval Institute Press, 1987), 196-7.

¹¹⁹ Planning Committee to CNO, "Comparison of U.S. Atlantic and U.S. Pacific Fleets," June 19, 1919, M1140, 100-9.

¹²⁰ Sprout and Sprout, *New Order*, 96.

imposed on the Navy by Daniels. To them, the move was intended “to make votes for the Democratic party in the coming presidential election,” by giving the West Coast its long hoped-for fleet. Although the editorial claimed that the move was widely unpopular amongst the officers and men of the Navy, this appears to be one of the few major decisions made by the rather unpopular Daniels supported by the officer corps.¹²¹

However, this “Pacific pivot” did not solve all of the Navy’s problems. A July 10 memo sent over the signatures of most of the OpNav staff lamented that the Navy had “no type of cruiser capable of performing the duties that would be required of that type in a modern war,” the memorandum went on to suggest that the near-useless extant cruisers could be used as flagships or for diplomacy.¹²² In both oceans, the U.S. Navy’s cruisers remained overmatched and outnumbered, making the glacial progress on battlecruiser construction especially grating. Six battlecruisers would not close the cruiser gap in either case, but six large ships too fast for the British or Japanese navies to catch would improve the U.S. fleet’s scouting arrangements.

Both OpNav and the Board, however, recognized that even finishing the authorized construction on the original timetable was insufficient to meet Japan with the overwhelming superiority the American ethos of the offensive demanded. Along with urging the completion of the 1916 bill ships, the General Board also requested two new battleships, one battlecruiser, and two carriers to be laid down in the 1920-21 fiscal year, as well as ten scout cruisers, five flotilla leaders, and six submarines, though Congress late rejected the plan.¹²³

¹²¹ Unsigned Editorial, “Navy Repudiates Mahan,” *Sea Power*, January 1919, 31.

¹²² Plans Committee to CNO, “Organization and Development of Atlantic and Pacific Fleets,” July 10, 1919, M1140, Subject 100-9.

¹²³ General Board to Daniels, October 10, 1919, M1140, Subject 129-1.

Less than two weeks earlier, the Board had discussed the new Japanese 8-8 plan with a Japan expert from the Marine Corps. The meeting confirmed that Japan intended to construct and commission four dreadnoughts and eight battlecruisers by the end of 1923, an output the United States could only match with prompt resumption of the 1916 ships.¹²⁴

Further confirming the alleged threat from Japan was OpNav's own building program memo, written two weeks after the Board's. While the Board's memo made no specific mention of a country, the OpNav program asserted that Britain and Japan were the United States' two potential enemies, and that preparations for Japan demanded the highest priority given the conflict between Japanese and American policies in the Pacific. The report also contained an outline for a plan of war against Japan, allowing the Plans Division to make suggestions based on specific scenarios and issues brought up in a potential war. The plan envisaged Japanese attacks on the Philippines, Guam, and other American possessions in the Western Pacific, followed by an American advance across the Pacific to recapture Guam. Once Guam was secure, the plan called for the capture of outlying Japanese islands and a close blockade of Japan, leading to an eventual surrender. Unfortunately, the study concluded, the USN as then constituted was unable to fulfill the plan.¹²⁵

Capital ships, though, were not the issue. The OpNav plan recommended suspending battleship and battlecruiser construction after the completion of previously authorized construction, a change from their earlier advocacy of an enormous new construction program. If capital ships were needed in the future, the authors suggested the construction of "C" type fast battleships over separate battlecruiser and battleship types. Instead, the greatest

¹²⁴ General Board Hearing, October 1, 1919. *Proceedings and Hearings*, Roll 12.

¹²⁵ Plans Division to CNO, "Building Program, Fiscal Year 1920-1921" October 22, 1919, M1140, Subject 198-2, 2-3.

needs for the Navy were in light cruisers and carriers, both types being essential for the blockade phase of the war against Japan, and both types being major gaps in the American force structure. With that in mind, the Plans Division suggested the construction of four carriers and twenty light cruisers in the 1920-1 fiscal year. The latter were a particular favorite of the Plans Division; the report recommended the construction of twenty every year until the United States had at least 100 more light cruisers than Japan.¹²⁶

Although formal responsibility for the Navy's building program requests remained with the General Board, the OpNav plan highlighted some of the advantages of placing responsibility for building programs in the hands of those responsible for developing war plans, as the new British staff system did. The General Board plan was based on a policy of making the U.S. Navy "equal to the most powerful maintained by any other nation of the world," a materialist goal divorced from strategic plans or principles.¹²⁷ A navy of that size would have given the USN enough materiel to engage with Japan or, if it came to that, Britain, but the Board's understanding of "balance" still rested on a split between the expensive carrier, battleship, and battlecruiser types rather than the allocation of more resources to the flotilla. OpNav, on the other hand, produced a building program that was part of an integrated whole, prioritizing new construction base on the context of Pacific bases, manpower needs, and the newest war plans.

The structure of the report was almost as interesting as its suggestions. Unlike the General Board's brief memorandum, this report was structured like a NWC "problem," answering the question "In consideration of the international situation, our foreign policies,

¹²⁶ Plans Division, "Building Program 1920-1," 15-6.

¹²⁷ Similar critiques were leveled at Fisher and his supporters by fellow British officers, most notably Richmond.

and present relative strength of our own and foreign navies, what should be our naval building program?”¹²⁸ The report then proceeded to answer the question starting at first principles and the definition of a “naval building program,” before laying out the plan for war with Japan and the ships needed to meet that plan’s requirements. Both in form and conclusion, the plan reminds the reader of nothing so much as a War College report produced during the post-1912 “Long Course” period, when the focus of the institution shifted to deeper education of a smaller number of students rather than the yearly summer conferences.

If nothing else, the report demonstrated the importance of the Naval War College to providing the new naval staff with both officers and a shared ethos. Of the thirteen members of the OpNav Plans Division in mid-1919, six, including the chair, were Long Course graduates; one had attended the Summer Conference in 1912 and Pratt, though not a War College graduate, had been a War College instructor during the first Long Course. By comparison, at the end of 1920, only 24 of 69 flag officers, 65 of 239 captains, and 31 of 410 commanders in the Navy were Long Course graduates.¹²⁹ Checking OpNav staff rosters against the lists of Newport attendees confirms that a stint at the War College was a very

¹²⁸ Plans Division, “Building Program 1920-1,” 1.

¹²⁹ William Sims, “The Need of Trained Officers,” in *Proceedings*, January 1921 (originally given in December 1920), 9. A War College background became especially desirable for line officers after 1916, when Congress finally allowed the Navy to select officers for promotion rather than using seniority and the periodic “plucking” out of unfit officers for retirement to ensure a competent officer corps. For example, the first of the new promotion boards met in late 1916 and recommended 11 officers for promotion from captain to rear admiral. Of the 11, three were special duty officers restricted to engineering duty on shore. Of the other eight, a list that included W.L. Rodgers, Sims, and Rodman, seven had been War College students, and the eighth had been a staffer there. Of the 29 commanders promoted to captain, four were engaged in engineering duty. Of the remaining 25, more than half had a War College background: ten were Long Course officers, at least another three had attended a summer conference, and one was a staffer. War College experience may not have been a prerequisite for high rank, but it helped. Donald Chisholm’s *Waiting for Dead Men’s Shoes* (Stanford, CA: Stanford University Press, 2001), describes the selection board on p. 595. Information on the officers promoted comes from a combination of the 1916 Navy Register (Washington: Government Printing Office, 1916), Naval War College rosters, and “119 Promotions in Navy,” *New York Times*, January 6, 1917.

important qualification for a position on the naval staff and long course experience especially valuable for those tasked with charting the Navy's future.

It undoubtedly gave OpNav a different perspective than the General Board, where only Sims, the War College President, was a long course graduate and, at any rate, stationed far from Washington. The fissure that opened between the two bodies also suggests that the Board had lost something of its once-close connection to the Naval War College, which was under the direct supervision of the CNO and the chief source of OpNav staffers. While the Board had been mildly progressive during the prewar years, eventually promoting dreadnought battleships and battlecruisers against traditionalist resistance, it now found itself as the voice of conservatism in internal debates.

The increasing size and prominence of the OpNav staff, and its intimate ties to the War College, came close to bringing the dreams of Fiske and other reform-minded officers to fruition. As Sims noted in a speech to the December 1919 War College class, their coursework and war gaming at Newport would allow them to “develop new applications of the principles of warfare as applied to modern naval conditions. . . . They will also explain how the tactical game demonstrates the necessity for new or modified types of vessels, or new or modified uses for those already built.”¹³⁰ Rather than trying to influence the General Board at Summer Conferences, Sims could be reasonably certain that many of the War College graduates would later find themselves in the Office of Naval Operations, directly shaping naval policy.

Proponents of the War College were fond of saying that one of their main missions was to “indoctrinate,” the Navy, especially its future leaders, with the proper understanding

¹³⁰ Sims, “The Practical Officer,” December 2, 1919, RG 12, Box 1, Folder 20, NHC, 25-6.

of naval theory and strategy. Dudley Knox, a veteran of Sims's Planning Section and the OpNav staff, and a member of the new Command Department of the Naval War College, argued in an August 1919 *Proceedings* article that OpNav could contribute to that mission. While the War College could train some leaders, a staff could make sure those methods and ideas spread throughout the fleet. The recently concluded war, he argued, had demonstrated the necessity for a "highly specialized General Staff," in charge of "planning, indoctrination, and other higher branches of the profession." Indeed, Knox's article skirted close to suggesting that it would be best for OpNav to usurp all of the remaining functions of the General Board.¹³¹

Based on the fast battleship fight and the alternate building programs, the CNO, OpNav, and perhaps the Secretary also believed that the naval staff was best situated to take on all planning functions. Less controversially, however, OpNav enthusiastically took on the "indoctrination" brief. As we have seen, Benson released a memorandum, "Doctrine," in late 1917 that laid out American naval policy in very broad terms, but elements in his staff wished to go much further. The thirteen authors of an OpNav memorandum (a group that included five flag officers) on the splitting of the battle fleet between the Atlantic and Pacific suggested that their office could maintain commonality between the two fleets by issuing "a common fleet doctrine which shall embody the doctrines of the various force organizations, this doctrine not to be altered except by the Department." Furthermore, they suggested that the Plans Division be given the responsibility for developing the exercises and fighting

¹³¹ Knox, "Our Post-War Mission," *Proceedings*, August 1919, 1299.

instructions of the fleet, rather than allowing individual commanders the latitude to determine these on their own.¹³²

To some extent, the General Board was in the process of being superseded; perhaps due to its increasing isolation from the intellectual ferment of Newport (the last Summer Conference had taken place in 1913). Although the initial response to the creation of the CNO and OpNav had been cool amongst reformers, presumably due to Daniels's treatment of Fiske, by the end of the War, the three most notable wartime commanders, all Newport graduates, had stood with OpNav against the General Board, joined by the technical bureaus and a substantial portion of the press.

At the heart of this shift was the debate over battlecruisers. The Board's persistent and continuing support for them stood against the lessons of the war as understood by much of the U.S. Navy. As recently as 1914, support for battlecruisers was indicative of avant-garde thinking in the U.S. Even as late as early 1917, the General Board's contention that British failures with the type had little to do with American battlecruiser doctrine went essentially unchallenged inside the Navy. Exposure to the Admiralty during the War, however, and the example of *Hood* swiftly killed support for battlecruisers within the Navy's strategic elite, outside of the General Board. By early 1919, support for battlecruisers in the U.S. had become a mark of old-fashioned thinking.

This state of affairs, however, was not a simple resurrection of the old-fashioned, pre-war anti-battlecruiser faction that existed in the US around 1910. The new opposition to battlecruisers did not stem from a retrograde belief that "speed is weakness," but rather from an appreciation of the importance of speed to fleet operations and the belief that fast

¹³² Vice Admiral C.S. Williams, Rear Admiral C.P. Plunkett, Rear Admiral J.S. McKean, et al., "Organization and Development of Atlantic and Pacific Fleets," Jul 10, 1919. M1140, Subject 100-9.

battleships would allow the U.S. Navy to marry speed and protection in a single class of ship. This blend of capabilities was not a figment of some future technological dream, but stemmed from extant British plans for HMS *Hood*, which many fast battleship advocates saw as a jump in naval construction comparable to HMS *Dreadnought* a decade and a half ago. Previous rounds of naval debate could be reasonably portrayed as a forward-looking Board fighting against the hidebound bureaus and unreconstructed Mahanians. In the immediate postwar period, however, the General Board appeared ossified, pitted against sentiment in the War College and the War College-trained OpNav staff.

The 1918-19 period solidified the different design philosophies at work in the US and UK. In Britain, both the Phillimore Committee, which remained committed to capital ship bifurcation, and draft designs at the Admiralty, which did not, confirmed that *Hood* would be the postwar pattern for fast capital ships in Britain. Even officers like Jellicoe, who had eagerly participated in the design or employment of prewar battlecruisers, came to see the Fisher-style battlecruiser as an irreparably flawed design. While the Royal Navy could not afford to scrap its prewar models, they were not to be repeated whenever construction was allowed to resume.

The U.S. Navy did not reach so harmonious a position. The Board's thin-skinned battlecruiser easily survived scrutiny in the immediate aftermath of the Battle of Jutland, and even American access to British records on the battle. It could not easily survive the conviction, increasingly common as 1918 went on, that *Hood* represented a new paradigm of

capital ship construction, superseding the *Dreadnought/Invincible* revolution of 1904-6. By late 1918, the Board's design was facing united opposition from the Bureaus, active commanders, and OpNav. Although the Board managed to weather the storm with their design reasonably intact, it was an early signal that their influence over the Navy's long-term procurement policy was not secure.

Instead, planning in the U.S. Navy seemed to be moving towards a staff system of the sort maintained by the other major naval powers, including the British. Although reformers had pushed for a naval general staff in the wake of the Spanish-American War, a central staff organization was not created until 1915. Even then, the new OpNav staff did not really find its feet until the 1917 wartime expansion of the Navy and its strategic apparatus. Like the Planning Staff at Sims's headquarters in London, OpNav provided a suitable home for the talents and training of graduates of the War College's Long Courses. With more recently trained staffers than the General Board, and a more secure position in the organizational chart, by 1919 OpNav had begun to take on the General Board's war planning functions and threatened to supplant it entirely.¹³³

In Britain, the Admiralty staff had grown in size and improved in effectiveness over the course of the war, but questions remained about its ability to transition to peacetime work. As reformers like Drax and Richmond noted, and the Admiralty implicitly accepted, the state of training for potential staff officers was dire. This was especially notable in the sort of "big picture" thinking required for effective peacetime staff work, as opposed to the narrower skillset required for wartime operational work. Given the challenges facing Britain,

¹³³ Miller, *War Plan Orange*, 84.

the Naval Staff's suitability for that role was subjected to a stress test immediately after the war, which continued through the 1921-22 Washington Conference.

The early postwar results were promising. Although financial difficulties prevented the immediate construction of new capital ships, Wemyss and his assistants ensured that the basic structure forged during the war remained. Of special interest are the education initiatives pushed by Wemyss, to ensure the supply of well-trained officers for service with the naval staff. The Wemyss Board was also able to use the Phillimore Committee to collect as many lessons from the war as possible, aiding in the future development of policy.

Signs in the U.S. were less promising. Before the First World War, the U.S. Navy's inefficient planning and policy apparatus functioned because the strategically minded parts of the officer corps had collectively decided that it had to work. The General Board, for all its limitations, was the only permanent planning body in the Navy, making General Board service prized, and its decisions well regarded.¹³⁴ The General Board, for all its faults, was the only permanent planning body in the Navy. Officers aspired to be on it, and it represented the voice of the line officers to the Secretary and, in many ways, against the technical Bureaus. The General Board, for example, had led the advocacy for dreadnought-style battleships in 1904-8, while the technical bureaus and the Board of Construction resisted.

However, the creation of OpNav in 1915 and, especially, the new OpNav Planning Section at the end of the war, confused the picture. These decisions were, in a vacuum,

¹³⁴ Admiral Dewey's presence as President of the General Board certainly helped. With his death in 1917, the highest-ranking officer in the Navy was the CNO instead of the Admiral of the Navy.

excellent developments that rationalized policy formulation and war planning in the Navy. The General Board, however, was left outside of these arrangements, and suffered for it. Although the CNO, Admiral Benson, was a member of the Board, he frequently disagreed with its decisions. Even worse, OpNav took many of the talented officers who would have ordinarily been in line for a General Board post. Thinkers like Knox, Yarnell, and Schofield were ensconced in staff postings with OpNav; their predecessors ten, or even five, years earlier would have had a good chance to spend time as members of the General Board, and lend their expertise to its deliberations.

Despite these weaknesses, the General Board could not be ignored. Although the Board was, in theory, only as powerful as the Secretary allowed it to be, it maintained a strong influence on war plans, and a firm grasp on warship specifications, despite clashing with OpNav, senior commanders, and Secretary Daniels on the latter point. Put simply, the U.S. Navy faced a conflict between those charged with designing warships and those charged with utilizing them, a situation akin to the difficulties facing the Royal Navy during Admiral Fisher's first term as First Sea Lord.

If the American and British navies had had comparable administrative setups, the year after the First World War would have produced a commitment towards fast battleships on the *Hood* model in both countries. In reality, only the Royal Navy managed to secure that commitment. A plurality of senior officers and staffers in both countries supported fast battleship construction, based on a similar reading of the First World War and the Battle of Jutland. In Britain, wartime changes to the Board of Admiralty and the Naval Staff ensured that such decisions were made collectively by the Board, with extensive support from the Staff, in the persons of the ACNS and DCNS on the Board. In the United States, the General

Board, slipping out of the mainstream of U.S. naval thought, managed to force the retention of the lightly armored battlecruiser, a decision that ran counter to majority naval opinion.

CHAPTER 9: DROWNED IN INK

Had the matter been left to the admirals, Britain, the United States, and Japan, would have been well into a three-headed naval arms race by the end of 1919. Fortunately, it was not. Politicians and economic common sense blunted those impulses in the U.S. and in Britain, although Japan continued with its “8-8” program. Despite these brakes on warship construction, the Admiralty and the Navy Department continued to think about potential new designs.

As both navies tried to develop vessels for the postwar era, battlecruisers seemed to slip down the priority list. In the United States, the rapid development of aircraft carriers threatened to usurp many of the scouting and screening functions for which the *Lexington*-class battlecruisers were intended. More importantly, Congress showed little interest in any form of naval construction. After Administration arm-twisting, they had approved a doubling of the 1916 program in early 1919 for use as a bargaining chip at Versailles, but only with a tacit agreement that those ships would never actually be built. Increasingly, they seemed to treat the 1916 ships current under construction the same way. Congress refused to appropriate funds for the full-speed construction of the 1916 ships, a blow that fell disproportionately on the delayed and redesigned battlecruisers.

In Britain, the problem was simpler—there was no money for new warships. Indeed, there was hardly money for old warships, as the size of the fleet shrank dramatically after the Armistice. The Admiralty remained committed to the capital ship as the standard of naval

power, but believing it was not the same as getting one built. If they were to be built, questions remained over their design. *Hood* represented the final word in wartime naval design, but battlecruisers remained controversial in Britain, especially after Admiral Beatty took over as First Sea Lord in late 1919.

In both countries, these debates ultimately were superseded by the Washington Conference in 1921-22 and its associated treaties, but neither navy could have known that. The dramatic cuts and cancellations at the heart of the treaty were the result of an American plan finalized barely two weeks before the Conference's start. No one—certainly no one in the Admiralty or Navy Department—could have expected the unprecedented terms of the Washington limitations regime. With that in mind, the last years before the Conference should not be viewed as the coda to a fading age of dreadnoughts. In London and Washington, naval strategists and constructors busied themselves debating and designing ships that they sorely wanted built; ships they deemed necessary to an imminent war between some combination of the U.S., the U.K., and Japan.

Part of the reluctance of avant-garde American officers to endorse the prewar battlecruiser paradigm during the 1918-19 fast battleship controversy came from the only truly new class of ship to come out of the First World War: the aircraft carrier. Although the United States Navy had been an early pioneer in launching and landing airplanes from and on warships, the British were the first to use ships specifically for aircraft; seaplane tenders early in the war, followed by ships with decks that could accommodate the launching and recovery

of wheeled airplanes.¹ By mid-1918, carriers were considered a key part of British fleet operations, as Admiralty constructor Stanley Goodall related to his American hosts in two August memoranda. Specifically, the Royal Navy found aircraft essential to the scouting prior to a major battle.²

While Goodall's advice probably played a role in the General Board's September 1918 request for six carriers as part of the next construction program, the U.S. Navy already sported a number of officers with bullish opinions on the potential of carriers. Around the time that Goodall was describing British practice, Admiral Benson commissioned a panel of OpNav officers to investigate the potential of aircraft. This body suggested an even greater scope for naval aviation than Goodall, noting the potential to perform "fighting, spotting, scouting, torpedoes, and bombing" missions.³ In other words, naval aviation could perform the scouting and combat functions of a battlecruiser, perhaps at a lower price. More importantly, aircraft could, in time, fulfill those functions with greater efficiency and fight in fleet actions with less risk to the vessel. Admiral Mayo, in his early 1919 appearance before the House Naval Committee made this point explicitly, arguing that a combination of aircraft and light cruisers would make battlecruisers unnecessary.⁴

This feeling was widely shared in and around the U.S. Navy. Bradley Fiske, now the President of the U.S. Naval Institute agreed, with the rosy predictions of carrier development. Fiske, who had patented a mechanism for airdropping torpedoes in 1912, gave a lecture at the

¹ See the first two chapters of Charles Melhorn's *Two-Block Fox* (Annapolis: Naval Institute Press, 1974) for more information on American naval aviation before the end of the First World War.

² S.V. Goodall, memoranda, August 18 and 22, 1918, M1140, Subject 136-1.

³ OpNav staff, memorandum, [Summer] 1919, M1140, Subject 100-95.

⁴ Mayo Testimony, January 30, 1919, 1128

War College in September 1919 suggesting that *Argus* and *Eagle* (two British aircraft carriers) could be the battleships of the future.⁵ Bombers could be deterred by ship borne anti-aircraft guns, but with effective torpedo ranges as far out as 16,700 yards in the newest American models there was little a battleship line could do to prevent attack from swarms of torpedo airplanes.⁶

Even with predictions like those from Fiske and the OpNav committee, decision-makers and the strategic apparatus of the U.S. Navy continued to advocate for battlecruisers, at least if fast battleships were no longer an option. In early 1920, for example, Ralph Earle, head of the Bureau of Ordnance, told Robert E. Coontz, the new CNO, that it would be best to expedite the construction of the 1916 Bill's battlecruisers, even if it meant sidelining battleship construction.⁷ While he had supported the C type fast battleship through the 1918-19 debates, it was "essential" that the U.S. Navy had a ship that could outrun and outshoot Japanese battlecruisers. But even Earle was already cracking open the door for a new set of priorities based on carriers. His note also suggested that aircraft carriers or cruisers with "facilities for carrying aircraft," were "the most urgent need for a naval campaign in the Pacific."⁸ A later note from Coontz indicated his support for Earle's recommendations.⁹ A

⁵ Melhorn, *Two-Block Fox*, 10-11.

⁶ Bradley Fiske, "The Torpedo-Plane," September 12, 1919, Box 2, Folder 69, RG 4, NHC, 6-7.

⁷ Like Benson, Coontz was not a War College graduate, though he had expressed a desire to go in 1914, before he was selected to command the Puget Sound yard. Coontz had a somewhat more promising career path than Benson; he was selected to be Chief of Naval Operations after a stint as the second in command of the new Pacific Fleet. Like Benson, Coontz's selection owed much to his supposed political reliability. While commanding the Puget Sound yard in the First World War, Coontz seized Russian ships off the coast of Washington that "had been taken over by Soviet committees of sailors," acted harshly towards suspected communist union organizers in the yard, and successfully urged the Democratic governor of Washington to take similar actions in the rest of the state; all actions that impressed Daniels. Lawrence H. Douglas, "Robert Edward Coontz," in *The Chiefs of Naval Operations*, ed. Robert William Love, Jr. (Annapolis: Naval Institute Press, 1980), 23-37.

⁸ Earle (BuOrd) to Coontz, "Building and War Plans," January 21, 1920, M1140, Subject 198-2.

document from the War College staff written a few weeks later made a similar point: battlecruisers, impossible to counter without similar ships, were the only major Japanese advantage over the U.S. in the Pacific.¹⁰

The War College class that graduated in June 1920, having, on Benson's orders, spent their course focused on the Japan ("Blue-Orange") problem, tended to agree that battlecruisers *and* carriers were necessary for American power in the Pacific. Captain James Oliver, the director of OpNav's Plans Division, forwarded a selection of the class's final theses to Coontz for suggestions on the future course of Pacific policy. Oliver suggested that the opinions of "30 able and experienced officers of the Navy," after "a year's study," would be valuable in shaping future policy.¹¹ This was unsurprising from Oliver, an officer who had done four tours at the War College (student 1889, instructor 1902-3, 1907-8, and 1910-11), an almost unprecedented amount of time in Newport outside of officers like Mahan and Luce who remained connected to the War College long after retirement. While in keeping with Oliver's background, forwarding these student theses also highlights the increased rigor of the War College after the institution of the Long Course; rather than singling out an especially brilliant officer's report, the entire class's output was seen as worthy of consideration.

Like Earle and Coontz, the students were broadly in favor of both carriers and battlecruisers (notably, none of the quoted sections advocated for fast battleships). Of the 26 theses quoted in Oliver's memorandum, seventeen pinpointed battlecruisers as the main

⁹ Coontz to Earle, January 31, 1920, M1140, Subject 198-2.

¹⁰ War College Staff, "Solution to Strategic Problem III," February 21, 1920, Box 1, RG 12, NHC.

¹¹ Captain James H. Oliver to Coontz, June 14, 1920, M1140, Subject 112-33, 1.

weakness in the fleet and advocated expedited construction and/or subsequent battlecruiser production and fifteen (there was quite a lot of overlap between the two groups) pushed for increased carrier construction. Rear Admiral L.H. Chandler, the highest-ranking officer in the class, seemed to speak for his fellows when he suggested that the U.S. Navy build “all that Congress can be induced to provide.”¹²

Even the fast battleship booster Chief Constructor Taylor had come around to supporting battlecruiser construction by mid-1920, confirming in an April speech on warship design and the lessons of the Great War that battleships and battlecruisers remained “the foundation of sea power.” Furthermore, Taylor appeared to moderate some of his earlier criticism of the type. On the performance of battlecruisers at Jutland, Taylor noted that “the losses . . . bear out to some extent the pre-war contentions of those who maintained that it was not fit to take its place in the line,” but countered that the ships “acquitted themselves with credit . . . the value of their great speed [was] demonstrated,” and proved that battlecruisers were crucial for any future fleet actions.¹³

Indeed, Taylor’s speech can be read, in part, as an implicit admission that he was content with the modified design of the *Lexingtons*, an opinion shared by many internal critics of the original *Lexington* design. By mid-1920, the ill feelings over the fast battleship debate seem to have dissipated. Opinions differed over whether or not the United States should build more battlecruisers, but decision-makers inside the Navy continued to hold sacrosanct the completion of the extant battlecruisers in accordance with the 1919 redesign—although the General Board did request an additional one in their October 1920 construction

¹² Oliver to Coontz, June 14, 1920.

¹³ Taylor, Franklin Institute Speech, [April] 1920, reprinted in *Proceedings*, October 1920, 1663-5.

memorandum.¹⁴ Despite OpNav's lingering discontent with the 1919 deal, all stakeholders were agreed that some sort of fast and powerful ship was needed in the Pacific, and that its mere existence was more important than whether it was used for scouting or the line.¹⁵

By the end of 1920, that ship's existence was threatened. As Congress grew increasingly skeptical of naval spending after the war, they were unwilling to provide funding to complete the 1916 ships at full speed, which hurt the battlecruisers more than the battleships, given the pause in battlecruiser construction. On November 1, 1920, the battlecruiser farthest along was just shy of 6% complete, according to C&R. On the other hand, nine of the ten 1916 program battleships were already under construction, ranging from the 9% complete *Iowa* to the 84% complete *Maryland*.¹⁶

Against that background, completing the battlecruisers became rather more important than details of their design; any delay might convince Congress to cancel them altogether. Surely, six flawed capital ships were better than none. The results of the November presidential election cemented this siege mentality. The new President-elect was Warren G. Harding who, despite supporting a big navy earlier in his career, had appeared to support some form of arms limitation during the campaign.¹⁷ Even before Harding took office, the outgoing Daniels justified his refusal to push for new construction by pointing to “this

¹⁴ General Board to Daniels, September 24, 1920, reprinted in *Annual Reports of the Navy Department for the Fiscal Year 1920* (Washington, Government Printing Office, 1921), 211-6.

¹⁵ Additionally, it seemed as if the Admiralty might have been walking back on their support for fast battleships. Chatfield, the new Assistant Chief of the Naval Staff, was notably opposed to the *Hood* design, finding it too fast at the expense of armor and firepower. See *Proceedings*, July 1920, 1113 as well as the second half of this chapter.

¹⁶ C&R chart reprinted in *Proceedings*, December 1920, 2019. USS *California*, from the 1915 program, was nearing completion as well.

¹⁷ Thomas H. Buckley, *The United States and the Washington Conference, 1921-1922*, (Knoxville: The University of Tennessee Press, 1970), 11.

Congress [;] . . . not disposed to authorize the construction of any capital ships.”¹⁸ In other words, a penurious Congress and hostile voting public were the common enemies of all naval officers interested in expanding the fleet, as the vast majority of U.S. Navy officers did.

Congress’s unwillingness to build new ships opened the door for a new round of internal wrangling over fleet composition. With the battlecruiser/fast battleship debate settled, tension in 1921 centered on the role aircraft carriers and aviation would play in the Navy of the future. The U.S. Navy was already working on a carrier, converting the fleet collier *Jupiter* into the experimental carrier *Langley*, and even before its commissioning in 1922, there was agitation in and outside of the Navy to make the construction of purpose-built carriers the Navy’s highest priority.¹⁹

The Board opted to double-down on capital ships. Writing to Daniels in early February, the Board reiterated its longstanding opinion that battleships, the only vessels that could “deliver and receive the heaviest blows,” were the final arbiter of naval power. They were, the Board admitted, expensive, but over the years many had put their hopes in “any scheme, proposition or invention which appears to offer a less expensive, shorter road to victory,” and none of those—cruiser-based *guerre de course*, torpedo boats, or submarines—had proven equal to the task of making up for an inferiority in battleships.

Here, the Board bolstered their argument by including text from First Lord Walter Long’s

¹⁸ Daniels to General Board, January 22, 1921, RG 80, E19, Piece #8557-283, NARA Washington.

¹⁹ Along with the *Lexingtons* and *California*, *Jupiter* was fitted with a new turbo-electric drive train. While turbine engines allowed for greater speed than reciprocating engines, their high rotational speed, compared to the lower ideal speed of the propellers they drove, made them less fuel-efficient. The most common solution to this problem, after 1910, was a complicated set of reduction gears. In the turbo-electric system, the turbines had no direct connection to the propeller shaft. Instead, the turbines were used to power a set of electrical motors, each connected to a propeller shaft. This allowed for rotational speeds closer to the propellers’ ideal, reducing wear and tear and increasing fuel efficiency, a critical attribute for any ship expected to accompany the fleet across the Pacific, especially as a scout. For more information see William McBride, *Technological Change and the United States Navy, 1865-1945* (Baltimore and London: Johns Hopkins, 2000), 95-110.

Estimates speech from the previous year, which also defended capital ships against the charge of obsolescence.²⁰

Aircraft, they argued, were simply the latest of these unsound fads, a stance that seemed to run counter to the Board's own recent inclinations. In late 1919, the Board had called the potential of aircraft "so great that it is impossible to foresee."²¹ In September 1920, the Board warned that immediate construction of carriers, "an absolutely essential type," was "urgently needed."²² Just months later, however, the Board argued that "[g]reat things, not yet accomplished, are predicted by the inventors and enthusiastic supports of these new weapon . . . if past experience has any value, it may be as confidently predicted that [aircraft] . . . will continue to be only adjuncts of the fleet," though adjuncts of great value.²³ While the Board's fundamental stance on carriers had not changed in the previous six months, its rhetoric certainly had. It seems that the threat to capital ships had hardened the Board's hearts. Rather than trying to convince civilian policymakers to build carriers, the Board had shifted to convincing them to finish incomplete capital ships.²⁴

The Board, though, did not represent the views of all senior officers. Coincidentally, soon after the Board's report, a number of flag officers, including William S. Sims, Charles J. Badger, Fiske, Coontz, D.W. Taylor, and the Army's William Mitchell, were called before

²⁰ General Board to Daniels, February 2, 1921, RG 80, E19, Piece #8557-283.

²¹ General Board, "Recommendations for Building Program, [Fiscal Year] 1921," in *Annual Reports of the Navy Department for the Fiscal Year 1919* (Washington: Government Printing Office, 1919).

²² General Board to Daniels, September 24, 1920, in *Annual Reports of the Navy Department for the Fiscal Year 1920* (Washington: Government Printing Office, 1921).

²³ General Board, "Recommendations," 4.

²⁴ This shift cannot be explained through membership turnover on the Board. There were only two changes to the Board that asked for "essential" carriers in September and the Board that seemed dismissive of them in February.

Congress for a hearing on naval aviation. The testimony of the naval officers showed that the relative position of carriers in the fleet going forward had the potential to cause a split akin to the fast battleship controversy in the upper echelons of the navy. Although all five of the naval witnesses agreed that carriers were essential to future naval operations, the question of *how* essential proved difficult to resolve. The testimony did show, however, that battlecruisers remained popular with officers on both sides of the nascent carrier divide.

Sims, a member of the General Board through his position as War College President, became an enthusiastic proponent of carriers while running the London headquarters during the war.²⁵ Indeed, he believed that carriers were not just the capital ship of the future, but the present, claiming that a carrier's "offensive is more powerful than that of a battleship . . . she can send her planes out from a distance of 100 miles or more from the battleship and attack from the air." Rather than seeing them as a useful addition to the battle line, he later argued that a fleet of twenty carriers would defeat a fleet of sixteen battleships and four carriers, provided that the twenty-carrier fleet was adequately supplied with cruisers, destroyers, submarines, and auxiliaries.²⁶

Chief among these supporting vessels were battlecruisers, which Sims pinpointed as the perfect escort for aircraft carriers or, indeed, battleships. Although Sims had been one of the first officers to turn away from lightly armored battlecruisers in 1918, he bemoaned the slow progress made on the 1916 ships, "resisted," he claimed, "for some reason which I have

²⁵ An unkind commentator could make a strong case that, up to this point in his career, Sims's supposed iconoclasm merely reflected the opinions of whatever naval opinion happened to be ascendant in Britain. Here, Sims was definitely out in front of his British friends.

²⁶ House Committee on Naval Affairs, "Naval Policy of the U.S., Including Discussions on Limitation of Armaments; Naval Building Program, with Comparisons of Various Types of Seacraft and Aircraft; Development of Aviation and the Need for Airplane Carriers in the Navy; Air Bombing of the U.S.S. "Indiana;" the Proposal for a United Air Service," February 4-5, and 7, 1921, 661-2.

never understood.” Not only would the completion of the 1916 ships balance the battlecruisers possessed by other navies, but they would also screen carriers from potential attack by the limited number of enemy surface combatants fast enough to catch up with an ideal carrier of 30-35 knots’ speed. Rather than replacing the very incomplete battlecruisers with carriers, Sims suggested that the U.S. Navy cancel construction of up to six of the 1916 battleships and replace them with purpose-built carriers. Fiske’s arguments largely tracked those of Sims, albeit with greater technical detail.²⁷

On the other side of the ledger, both Badger and Coontz remained skeptical of the potential of naval aviation to *replace* battleships, seeing them instead as a vital supplement to the battle line. Badger, in particular, railed against enthusiastic carrier advocates, claiming that “[i]t would be the height of unwisdom to pin our faith . . . on mere theories.” Instead, Badger and Coontz suggested that battlecruisers and carriers could work in concert to bolster the Navy’s scouting and screening, which remained a weakness. As far as combat strength went, however, Badger only granted an aircraft carrier about 10% the fighting power of a modern battleship.²⁸

Although the General Board explored the possibility of cannibalizing one of the battlecruiser power plants or hulls for use in a carrier later in February, it was clear that both sides of the carrier divide within the Navy saw battlecruisers as a crucial part of the American force structure going forward.²⁹ Indeed, both the maximalists and minimalists

²⁷ “Naval Policy of the U.S.,” 662-71.

²⁸ “Naval Policy of the U.S.,” 680-90.

²⁹ “Characteristics of Airplane Carriers,” General Board Hearing, February 21, 1921, *Proceedings and Hearings of the General Board*, Roll 12. John Kuehn in *Agents of Innovation* (Annapolis: Naval Institute Press, 2008), p. 67, has argued that at this meeting the Board “tentatively decided on converting half of the 1916 battle cruiser hulls into aircraft carriers,” but that is reading rather deeply into a very preliminary discussion. Through the Washington Conference, the senior uniformed leadership of the Navy showed little interest in conversion,

agreed that there was a symbiotic relationship between carriers and battlecruisers, the latter escorting and protecting the former. Whether they were used for scouting or as protection for the main fleet, the position of battlecruisers within the Navy was as secure as it had been since the months between the passage of the 1916 Act and U.S. entry into the Great War. While some officers surely would have preferred to build fast battleships, the financial and political climate made it clear that the options for the Navy were six battlecruisers or no fast capital ships at all. Faced with that choice, the Navy fell in line behind the battlecruisers, ships that added speed to a slow battle fleet and steel to a weak scouting force.

Outside of the Navy, however, the barely-commenced battlecruisers were a juicy target for proponents of aviation, those who wanted to cut the naval budget, and those who advocated both. Mitchell, the Army's most prominent airpower advocate, had suggested in a recent book that the work of battlecruisers could be filled at far less cost by airships.³⁰ In Congress, the picture was equally bleak. Echoing the nation's mood, the House declined to authorize any new ship construction, or money for airplanes. Furthermore, their version of the bill only appropriated enough money to build the remaining 1916 ships at half speed. Although a majority of the Senate was in favor of a more robust program, a filibuster prevented the addition of more funds.³¹ In May, the Senate passed Senator William Borah's (D-ID) resolution urging a naval limitations conference, one that they clearly hoped would

explicitly arguing against it when pressed on the matter by Congress. See, for example, the Senate Naval Affairs Committee's hearings on the 1922 Navy bill, February 18-19 and 21, 1921, as well as the House Naval Affairs Committee's hearings on "Airplane Carriers," May 10-12 1921, especially the statements of Chief Constructor Taylor, Admiral Coontz, and Secretary Denby. The Navy's strong preference remained completion of the 1916 program along with one or two purpose-built carriers.

³⁰ Review of William Mitchell, *Our Air Forces—The Keystone of National Defense*, in *Proceedings*, March 1921, 461.

³¹ Sen. Miles Pointdexter, "Amateur Naval Strategists," *Sea Power*, April 1921.

remove the 1916 program from the books and obviate the need for any other large programs in the future.³²

1921 was also the year of Mitchell's famous *Ostfriesland* tests. That summer, the Army and Navy held tests to determine how a variety of warships would handle damage from aerial attacks. In the final part of the demonstration, Mitchell's pilots sank the ex-German dreadnought *Ostfriesland* with 1,000 and 2,000-pound bombs. Though it was obvious to most informed observers that unmolested aircraft could, given enough time, sink an unmanned battleship at anchor, his sinking of a modern dreadnought bolstered claims that *all* major surface combatants, save for carriers, were bound for the scrapheap.³³

Even before the tests, some naval observers tried to downplay their importance, one critic noting in *Sea Power* that under the unrealistic constraints of the exercises, it would be impossible for the test ships to survive.³⁴ However, the sight of airplanes sinking a battleship struck a chord with the public and Congress, leading to a number of suggestions that some or all of the 1916 battlecruisers be replaced by carriers. In the Senate, William King (D-UT) introduced a bill to cancel six of the 1916 battleships, three of the program's battlecruisers, and convert two of the remaining battlecruisers into carriers. King defended his position on both financial and strategic grounds, arguing that the lessons of the Great War and the *Ostfriesland* tests proved the importance of naval aviation, allowing the scrapping of nine

³² File 3809, RG 80, E19, NARA Washington.

³³ Melhorn, *Two-Block Fox*, 70-72.

³⁴ Sidney Ballou, "Don't Give up the Ship!," *Sea Power*, June 1921, 245-6. Ballou also lamented that "there [was] no prospect of [ex-Navy Secretary] Josephus Daniels being allowed to carry out his expressed wish of standing on the quarter-deck while General Mitchell endeavors to drop a thousand-pound bomb on him."

capital ships, saving “hundreds of millions of dollars.”³⁵ Likewise, the *New York Herald* suggested converting all six battlecruiser into carriers.³⁶ Within the Navy Department, the assistant secretary, Theodore Roosevelt Jr., also suggested converting one or more of the *Lexingtons*.³⁷

The biggest challenge to continued battlecruiser construction, however, came from a prospective arms limitation treaty, a goal shared by the Harding Administration and Congress. In the midst of Mitchell’s tests, Senator Borah’s resolution for a naval limitation conference passed the House and on July 11 (a week before the *Ostfriesland* was sunk), President Harding formally issued an invitation to a naval conference to foreign governments.³⁸ On the back of these developments, Harding’s Secretary of the Navy, Edwin Denby, asked the General Board to begin investigating arms limitation.³⁹

The Board approached the issue with ill-disguised hostility, expressing concern that any program of limitations would be inimical to American interests. Reducing the size of the Navy carried with it the risk of forcing an end to the traditional American policy of neutrality, and endangering the Monroe Doctrine, the Open Door policies in China and the American immigration policy based on “exclusion of Asiatics.” Furthermore, limitation might lead to the codification of an unacceptable balance of forces between the U.S. and

³⁵ “The Battle Cruiser Program: Senator King Would Convert Two as Airplane Carriers,” *Army and Navy Journal*, July 25, 1921, 1303.

³⁶ *New York Herald* article, July 31, 1921, reprinted in *Proceedings*, September 1921, 1446.

³⁷ Trent Hone, “High Speed Thoroughbreds: The US Navy’s *Lexington* Class Battle Cruiser Designs,” *Warship 2011* (London: Conway, 2011), 27-8.

³⁸ Melhorn, *Two-Block Fox*, 72.

³⁹ Secretary of the Navy Edwin Denby to General Board, July 27, 1921, Folder 5, Box 99, RG 8 NHC.

Japan, especially with the Anglo-Japanese alliance taken into account.⁴⁰ In two follow-up memoranda, the Board suggested an international agreement based on the completion of all ships laid down before November 1921 in the U.S., U.K., and Japan. After that, cuts could be made, based on a 10-10-5 ratio between the capital ship tonnage of the three major naval powers.⁴¹

It is impossible to tell if the General Board's plan was serious, or a disguised attempt to scotch the whole notion of arms control. Either way, the Board's plan was politically untenable. To build up to a cap, instead of cutting to a floor, may have reduced international tensions and defused the arms race, but by mid-1921, even friends of the Navy in Congress recognized the need for some sort of peace dividend. Completing the entire 1916 program was simply not in the cards; there was a fair amount of support in Congress for scrapping all sixteen even without a limitation conference.⁴² After a scolding from Denby, the Board submitted a second program that scrapped two battlecruisers and battleships each from the 1916 program, giving the U.S. a 19-dreadnought, 4-battlecruiser fleet by 1928.⁴³

Unsurprisingly, that plan also failed to meet Denby's specifications, and in mid-October, Denby turned to a troika of Assistant Secretary Theodore Roosevelt, Jr. (technically, Theodore Roosevelt III), CNO Koontz, and Captain William V. Pratt, the main technical advisor to the U.S. Conference delegation and newly assigned to the General Board, to formulate a limitation program and liaise with the State Department. Although the troika expressed support for the Board's final program, they soon suggested a second

⁴⁰ General Board to Secretary, September 12, 1921, Folder 5, Box 99, RG 8, NHC.

⁴¹ General Board to Secretary, September 17 and October 3, 1921, Folder 5, Box 99, RG 8, NHC.

⁴² Sprout and Sprout, *New Order*, 139-40.

⁴³ Board to Secretary, October [14], 1921, Folder 5, Box 99, RG 8, NHC.

program that would cut another four ships above the Board's second program. When asked which ships should bear the blow, the Board reluctantly suggested that the additional four be battlecruisers.⁴⁴ The three-man committee also suggested a third program, which cut three battlecruisers and three battleships, arguing that the two battleship, six battlecruiser suggestion was "not a good plan in that it scraps all the battle cruisers and leaves an unbalanced fleet."⁴⁵

Despite the Board's support for battlecruisers as a pressing need, in their minds, and in the minds of many other naval planners around the world, battleships remained the standard of naval power; the prospect of cutting any more battleships above the Board's second program was unthinkable. Just as importantly, the 1916 battlecruisers were intended to constitute a homogenous squadron of two divisions. Four battlecruisers could work as a single squadron or division, but anything less than that would represent a rather slim maneuver unit. Worse, three battlecruisers would fail to match the four extant Japanese battlecruisers. Viewed in that light, there was not much use for only three battlecruisers.

Even that plan was too much for Secretary of State Charles Evans Hughes. The leader of the U.S. conference delegation, Hughes was disinclined to allow the completion of any unfinished construction. An information request to that effect on October 21, prompted dark warnings from the Board five days later that the 1916 program had brought Japan to the negotiation table and that cancelling it would leave Japan "free to pursue untrammelled her aggressive program." Despite their protests, the Board provided Hughes with a list of ships

⁴⁴ Board to Assistant Secretary, October [19/20?], 1921, Folder 5, Box 99, RG 8, NHC.

⁴⁵ [Pratt, Roosevelt, and Koontz], "Explanatory of Navy Department Plans I, II, and III, October 20, 1921, "W.V. Pratt: Advisory Book No. 1, July 1921 to February 1922," Box 21, William Veazie Pratt Papers, NHC.

that would represent a commensurate sacrifice from the Japanese and British navies.⁴⁶ That same day a plan, probably written by Pratt, was submitted to Hughes “on the principle of ‘stop now;’” which was eventually adopted by the full American delegation on November 2.⁴⁷ On November 12, Hughes unveiled that program at the Conference’s opening session.⁴⁸

As an examination of the record shows, the United States did not give up battlecruisers at the Washington Conference for any strictly naval reasons. Two of the cancelled battlecruiser hulls—*Lexington* and *Saratoga*—were converted into carriers, but that has more to do with frugality and the high-speed electric drive intended for the *Lexingtons* than any sort of intentional choice on the part of the Navy. Indeed, the Navy fought tooth-and-nail to maintain its battlecruiser program against all threats after the 1919 battlecruiser settlement. Instead, the decision was a political and economic one, out of the Navy’s hands. From the moment it became clear that the U.S. would cut construction instead of building to a cap (and, despite the Board’s first plan, it was obviously in the cards from the Senate’s conference resolution at the latest), the six battlecruisers were effectively doomed. No responsible government could fail to cut the ships that were the most expensive and furthest from completion.

Given this process, to say, as one historian has, that “[t]he the decision to convert two of the cancelled battle cruisers to aircraft carriers was the correct one,” misses the point

⁴⁶ General Board to Secretary, October 26, 1921, Folder 5, Box 29, RG 8, NHC.

⁴⁷ [Pratt?], “A limitation and reduction of armaments on the principle of ‘stop now,’” October 26, 1921, Box 21, William Veazie Pratt Papers, NHC.

⁴⁸ William Reynolds Braisted, *The United States Navy in the Pacific, 1909-1922* (Austin: University of Texas Press, 1971), 589-91.

entirely.⁴⁹ During the conference, it was certainly the right decision for Assistant Secretary Roosevelt to agitate for a conversion clause, but by mid-conference there was no choice between building battlecruisers and carriers; instead there was a choice between scrapping the battlecruiser hulls and conversion.⁵⁰ From a naval perspective there was no decision made; Hughes and the civilian members of the delegation decided to sacrifice the battlecruisers for financial and political concerns. Similarly, the carriers were not a “replacement” for the battlecruisers in a naval sense, but ships with their own separate missions and roles in the fleet. As the U.S. Navy made clear on a number of occasions from 1918 through 1921, aircraft carriers were not a like-for-like replacement for battlecruisers, but a supplementary class meant to act in concert with them. Those officers who tended to take a more optimistic view of the role of carriers than Navy policy allowed for also saw battlecruisers performing key tasks in a carrier-dominant navy. For both the battleship and carrier partisans of the day, losing those six battlecruisers was a blow that was only partially offset by the carrier conversion.

The advent of aircraft carriers had less effect on the Royal Navy’s battlecruiser policies. Unlike the United States, Britain had an independent Royal Air Force, which had

⁴⁹ Hone, “High-Speed Thoroughbreds,” 28. Hone says this explicitly, but it is implicit in much of the post-World War II analysis of the Conference and the rise of carriers. See, for example, Baer’s *100 Years of Sea Power* (Stanford UP, 1994), 100; John T. Kuehn, *Agents of Innovation* (Annapolis, Naval Institute Press, 2008), 67; John Keegan’s *The Price of Admiralty* (New York: Viking, 1989), 160. Even though Thomas Buckley correctly noted (*The United States and the Washington Conference*, 121) that the “choice” to convert the battlecruisers was one made at knifepoint, he could not help but credit the American delegation for making such a “wise decision.”

⁵⁰ Buckley, *The United States and the Washington Conference*, 120-1.

full control over all military aircraft, pilots, and support staff, including those intended for carrier operations. With almost all trained naval aviators absorbed by the RAF from mid-1918, the Royal Navy lost its most obvious constituency for increased carrier resources. For a variety of geographical, strategic, and historical reasons, the new RAF could not claim, as Mitchell did in the United States, that aircraft could be Britain's first line of defense against attacks from the sea. Instead, it poured all of its financial and intellectual resources into developing a doctrine of offensive strategic bombardment.⁵¹ As a result, aircraft carriers did not threaten the traditional surface fleet in Britain to nearly the same extent they did in the U.S.⁵²

Instead, the challenges facing the Admiralty when Admiral David Beatty took over as First Sea Lord in November 1919 remained financial. *Hood* neared commissioning, but there were no other capital ships under construction or, it appeared, the prospect of new capital ship authorization from the Cabinet or Parliament. *If* money could be found, there remained the question of what to build: battleships, battlecruisers, or some sort of hybrid? Although their development was cut short by the Washington Conference, by the end of 1921 the Admiralty had lined up squarely behind the fast battleship paradigm.

Despite his faults, Beatty was the obvious choice for the office of First Sea Lord, having commanded the Grand Fleet at the end of the war. Although Beatty personally disliked First Lord Long and showed a marked preference for active service, he clearly desired the prestige of the office, and would stay at the Admiralty until mid-1927.

⁵¹ This, of course, is similar to what their American counterparts really wanted, but since American aviators claimed that their airplanes could defend the coast, they had to make some form of investment in that mission. For more on the development of American and British strategic bombing doctrine see Tami Davis Biddle's *Rhetoric and Reality in Air Warfare: The Evolution of British and American Ideas about Strategic Bombing, 1914-1945* (Princeton: Princeton UP, 2002).

⁵² For more on this issue see Roskill's *Naval Policy Between the Wars*, volume I, chapters six and ten.

Unsurprisingly, then, Beatty did not enter the Admiralty with any closely held policies beyond preserving British supremacy in capital ships, and nothing in the way of dramatic reforms. Critically, Beatty, though no intellectual himself, understood the importance of staff reform, and lent his prestige and support to the efforts of officers like Reginald Drax and Herbert Richmond to build a functioning staff run by qualified officers, and these efforts continued under his leadership.⁵³

While he took office too early for the staff training reforms to take effect, the composition of Beatty's Admiralty Board reflected, perhaps unintentionally, something of the reformers' desire for unity of purpose. Within months of Beatty assuming office, four of the other five naval billets on the Board were filled by officers who had served under Beatty during the war, especially in the Battle Cruiser Fleet. The two staff officers on the Board, the ACNS (from March 1920), Ernle Chatfield, and the DCNS, Osmond Brock, had an especially close connection to Beatty, having served as his flag captains during the war (Chatfield in *Lion* and, later, *Queen Elizabeth*; Brock in *Princess Royal* when *Lion* was under repair after Dogger Bank).

Beatty's appointment also coincided with a few changes to the Royal Navy's staff section. In addition to the changes in the training system discussed in the previous chapter, Long's 1920 message to Parliament tweaked the responsibilities of the Admiralty staff. The ACNS/DCNS split had originally been made to reflect the bifurcation of the naval war effort, but Long and Beatty put it on a peace footing. The deputy chief would be responsible for

⁵³ Roskill, *Beatty*, 291-302, 371.

“operations, policy, intelligence, and training,” while the assistant chief would focus on “the development and use of material, including types of vessels, weapons, and tactics.”⁵⁴

Long’s message made it clear that the placement of the ship development portfolio with the ACNS was a response to prewar shipbuilding policy. Previously, the 3rd Sea Lord had supervised the design and construction of ships, but primarily in a financial sense. By placing that responsibility with the staff, in the person of the ACNS, Long and Beatty showed that they understood the source of some of the problems with Royal Navy ships in the recent war:

The war has enabled us to test the weapons forged during a century of peace, and has shown that some of them were unsuitable and inadequate. It is clear that the reason they were so was not so much the fault of the design or manufacture as that *the designers are now shown to have been incorrectly or incompletely advised as to the fighting requirements of the moment. . . . The design of our ships must not and should not depend on the impulse of an individual nor merely on the mechanical possibilities of the moment.*⁵⁵ (Emphasis added)

After Jutland, Beatty and his BCF officers had railed against the “defective” design of their vessels using language that suggested the problem lay with the Director of Naval Construction and his office. This new approach, however, took aim at the real source of the problem; the lack of effective checks on the influence of an active First Sea Lord. Although the document did not say it directly, this administrative shift worked to prevent the possibility of a latter-day Fisher hijacking naval policy as Fisher had in 1914-15 and, arguably, from 1904 to 1910. The control of warship design would instead reside with the staff, ideally situated to ensure that warship design and operational doctrine were in concord.

⁵⁴ Charles N. Robinson, “The British Navy,” in *Brassey’s Naval and Shipping Annual. 1920-1*, eds. Alexander Richardson and Archibald Hurd (London: William Clowes and Sons, 1920), 2.

⁵⁵ Long, “Explanatory, 1920-1921,” 10-15.

The officer in charge of this process had firm views on warship design. Like his superior, Ernle Chatfield had nearly lost his life aboard *Lion* due, in part, to Admiral Fisher's predilection for speed over armor in battlecruisers. Chatfield, given significant input into the reworking of the ACNS role, ensured that his would be the loudest voice on the Board regarding ship design. The 3rd Sea Lord retained supervision of the Director of Naval Construction's department and shipbuilding, but the ACNS advised the First Sea Lord on matters of warship design, and then liaised with the 3rd Sea Lord and DNC to put those recommendations into action.⁵⁶ In effect, Chatfield filled a role in warship design somewhat analogous to the General Board in the United States though, of course, Beatty could overrule him.

At the end of his career, Chatfield reminisced that he was "determined not to build British ships that were unsuitable, after our lessons of Jutland," especially those with "too little protective armour, as had been the case in our battle-cruisers; ships that a lucky shot could blow up with their crews."⁵⁷ This distaste encompassed *Hood*, the jewel of the postwar Royal Navy. In March 1920, at the conference of the Institution of Naval Architects, Chatfield informed the attendees that, given a chance to design a new warship, it was unlikely that RN officers would choose to build another *Hood*, pointing to its great speed and firepower, but denigrating its barely-adequate armor scheme added very late in the design process.⁵⁸

⁵⁶ Alfred Ernle Montacute Chatfield, *The Navy and Defence: The Autobiography of Admiral of the Fleet, Lord Chatfield* (London: Heinemann, 1942), 192-3.

⁵⁷ Alfred Ernle Montacute Chatfield, *The Navy and Defence, Volume II: It Might Happen Again* (London: Heinemann, 1947), 5.

⁵⁸ "Professional Notes," *Proceedings*, July 1920, 1113 and *Brassey's 1920-1*, 18.

Chatfield's point was bolstered by a *Naval Review* article from May, which argued that *Hood* was too big and too expensive to be a sound basis for naval policy. At the same time, the author argued that the tradeoffs in her design were an uneconomical use of her size. As far as armor and armament, *Hood* was roughly comparable to the earlier *Queen Elizabeth*-class battleships, yet displaced 15,000 more tons. Clearly, much of that weight went to speed, which the author found an insufficient rationale, especially since he regarded *Hood* as a particularly fast battleship rather than a battlecruiser. Going all the way back to Mahan's 1906 Tsushima essay, the author went on to argue that the high unit cost of fast battleships would rob the Royal Navy of the advantages of numbers. Yes, the Royal Navy could build more fast battleships than its potential opponents could, but a fleet of fifteen *Hoods* was obviously harder to split than something the size of the wartime Grand Fleet.⁵⁹ In his autumn War College lectures, Richmond expressed similar concerns about the cost and likely scarcity of warships built to the *Hood* standard.⁶⁰

Regardless, Long's statement, like the Phillimore Committee's final report, assumed that capital ships, of roughly the prevailing pattern, remained at the center of naval warfare. Both Beatty and Chatfield shared this attachment to the traditional, gun-based, capital ship. The two men also believed that the U.K. would have to resume capital ship construction shortly—a stance to which Beatty was able to convert Long to by the summer.⁶¹ As a result, under the new Admiralty Board, DNC Eustace Tennyson D'Eyncourt's commitment to stay abreast of the times with sketch warship designs took on new urgency.

⁵⁹ Captain W.A. Egerton, "H.M.S. *Hood* and After: The Value of Speed in Capital Ships," *Naval Review*, May 1920, 176-80.

⁶⁰ Richmond, "Strategy IV: Influence of Strategy on Material," October 12, 1920, in *Lectures at R.N. War College Greenwich; Autumn Session, 1920: Volume I: Introduction, Policy, Strategy*, RIC/10/4, NMM, 4-23.

⁶¹ Roskill, *Beatty*, 302.

Though D'Eyncourt vociferously defended *Hood* and his wartime construction record in his early contacts with the new Board, he seems to have remained in favor of bifurcation. With the Board in favor of a four-capital-ship program for the 1921-2 budget, D'Eyncourt wrote the Third Sea Lord, Frederick Field, suggesting a building program of two battleships of "improved 'SOUTH DAKOTA' type," and two battlecruisers built to an "improved 'LEXINGTON'" standard, the latter suggesting a design with far less armor than *Hood*.⁶² D'Eyncourt even suggested that the ships could be referred to as "'Replace Dreadnought,' 'Replace Collingwood,' etc.," to avoid the impression of an arms race with the United States. D'Eyncourt also proposed bolstering the deck armor of the prewar *Queen Elizabeth* and R-class battleships to make their magazines proof against 16" shells, though he estimated that the cost would be "very considerable."⁶³

In early June, Chatfield came to D'Eyncourt with a set of preliminary guidelines; so preliminary, in fact, that Beatty had not yet seen them. Despite his evident misgivings, Chatfield's guidelines made provision for both battleships and battlecruisers (two weeks earlier, D'Eyncourt suggested an enigmatic third class, the "battleship cruiser," which suggests something *very* lightly armored and heavily armed, to no evident effect). For the battleship, Chatfield wanted a 45,000-ton design, with a minimum speed of 23 knots and nine 18" guns. For protection, he desired vertical protection proof against the American 16" gun, horizontal protection proof against an 18" gun over the magazine with an elaborate system of splinter decks, and underwater armor sufficient for a torpedo with a "750-lb. head." In

⁶² D'Eyncourt to 3rd Sea Lord, May 12, 1920, DEY/27/2, NMM.

⁶³ D'Eyncourt to 3rd Sea Lord, May 17, 1920, DEY/27/2, NMM.

essence, the battlecruisers were to have the same battery as the battleship, and the same deck armor, but vertical armor “reduced as necessary” to match *Lexington*’s 33-knot speed.⁶⁴

D’Eyncourt’s ideas were evidently trending in that direction, because three days later he presented the 3rd Sea Lord with a preliminary study on two standards of protection, one against 15-16” guns and one against 18.” D’Eyncourt’s estimation for the protection demanded by Chatfield ran to 15” of vertical armor, and a staggering 8.75” of deck armor, almost four inches more than the thickest deck armor on the R-class ships, and a tremendous addition to a ship’s weight (D’Eyncourt estimated a displacement of about 50,000 tons for a battleship proof against 18” guns and 43,500 tons for one designed against 15 to 16” guns). Battlecruisers, he suggested, could be built on approximately the same displacement and cost, though that cost, approximately £10 million, would be £4 million more than that of the *Hood*, a huge increase to justify in the strained budgets of the postwar era.⁶⁵

It is worth noting here that Chatfield’s understanding of a “battlecruiser” had little to do with how the term was understood on the other side of the Atlantic. By mid-1920, the American understanding of the word “battlecruiser” was a large, fast, ship with big guns and light armor. Anything else, from the *Hood* to the ships Chatfield and D’Eyncourt discussed here, were—the three “large light cruisers” apart—usually described as “fast battleships,” reflecting the American belief that the lighter ships were primarily scouts, and the heavier ships an integral part of the battle line/fast wing. Chatfield, and indeed most of the British naval leadership at the time, did not draw such distinctions. In their understanding, a “battlecruiser” was a capital ship with speed far in excess of the standard battleship,

⁶⁴ Chatfield, “Preliminary Statement by A.C.N.S. as to the Main Requirements of Design (Not yet seen by C.N.S.),” June 11, 1920, DEY/22, NMM.

⁶⁵ D’Eyncourt to 3rd Sea Lord, June 14, 1920, DEY/27/2, NMM.

regardless of armor. This, of course, was in keeping with the majority British view that battlecruisers were not primarily scouts, but ships intended for fleet action.

D'Eyncourt's armor schemes reflected this understanding. Although the figures presented were just for a battleship, Stanley Goodall calculated that D'Eyncourt's June 16"-proof design had 17,500 tons of armor, making its displacement about 40% armor by weight.⁶⁶ This can be compared to similar figures of 33.5% for *Hood*, 31% for the *Queen Elizabeths*, and 32% for the R-class battleships, all designed by D'Eyncourt.⁶⁷ Clearly, then, Chatfield's focus on armor above firepower and speed was making an impression, especially his fixation on magazine protection, forged in the BCF. Though the vertical armor on D'Eyncourt's designs was somewhat thicker than that on his prewar battleships, the main growth in the displacement on the newer design came from the dramatic increase in horizontal protection.

Nicholas Lambert's argument that the loss of three British battlecruisers at Jutland had more to do with poor ammunition handling procedures than insufficient deck armor is widely accepted amongst historians, but his essay also argued that the Royal Navy's post-battle focus on armor rather than ammunition amounted to an official cover-up. While that may have been the case at the wartime Admiralty, the behavior of the Board here suggests that this opinion was held honestly by some in the Royal Navy, especially BCF veterans. Beatty was a vain and petty man, who grew vainer and pettier by the day at the Admiralty, and it is true that focusing on armor avoided difficult conversations about his leadership of the BCF, but it beggars belief that he and his handpicked Board would base the future of

⁶⁶ Stanley Goodall, "Battleship Design," July 1, 1920, DEY/27/2, NMM.

⁶⁷ George Thurston, "The Capital Ship of the Future," in *Brassey's. 1920-1*, 77.

British sea power on a deliberate falsehood. Building capital ships to the prewar model would have been easier and far cheaper. Beatty's actions during and after the war paint a picture of a man who genuinely, and wrongly, believed that insufficient deck armor was the cause of the Jutland disasters.

D'Eyncourt spent the rest of the year refining designs based on Chatfield's instructions. The DNC initially began with a single fast battleship design, but by the fall, he had begun development of plans for a lighter, faster, companion, probably intended for use against the *Lexingtons*, though these were allowed to lapse. In late November, D'Eyncourt presented the Board with "I.3," a 32.5-knot ship. Slightly faster than *Hood*, I.3 displaced 9,000 more tons, mostly due to increased torpedo protection, and deck armor. The design also carried 9x16" guns in three turrets, an improvement on *Hood's* 8x15" on four, and the smaller number of turrets kept the displacement less than it could have been.⁶⁸

I.3 was, however, entirely out of touch with the austere budget environment. Of course, as a heavier ship with about 30,000 more horsepower, I.3 was bound to cost more than *Hood*; standard procedure as far as follow-on construction went. However, at 925' long and 108' wide, I.3 was too large for existing docks in the U.K., let alone the rest of the Empire and, as designed, was "outside, or very near the limits of the capacities" of the Suez and Panama canals. The Panama issue was not terribly serious, but a warship too big to transit the Suez Canal was too big to aid in the defense of British possessions in the Far East, a major postwar mission of the Royal Navy.⁶⁹

⁶⁸ D'Eyncourt, "Legend of Particulars of Proposed New Battle Cruiser Design," November 27, 1920, ADM 1/9232, TNA.

⁶⁹ D'Eyncourt, "New Designs – Battleship & Battle Cruiser. Summary Of," December 13, 1920, ADM 1/9232.

As a result, D'Eyncourt was asked to modify the I.3 design closer to the dimensions of *Hood*, and he returned early in the new year with what would become "G.3." The new design was slightly smaller (856' by 106') and lighter at 48,000 tons, but most of the particulars remained unchanged, apart from the armor, which was somewhat increased in total and by percentage. While I.3's displacement was approximately 28% armor, the G.3 design devoted approximately 30%. This percentage was somewhat lower than *Hood* or the prewar battleships, but the armor scheme placed more armor where it was needed, and rather less elsewhere.⁷⁰

While Admiralty memoranda tended to refer to G.3 as a battlecruiser, four ships built to that pattern were the only capital ships the Admiralty had planned for construction in the 1921-2 estimates and, conceptually, were indistinguishable from the "fast battleship" motivations that underlay the *Hood's* post-Jutland redesign. A useful comparison can be made between G.3 and the final *Lexington* specifications:

	<i>Lexington</i> (1919)	G.3 (1921)
Displacement	43,500 tons	48,000 tons
Horsepower	180,000	160,000
Speed	33.2 kts	31-2 kts
Main Battery	8x16"	9x16"
Armor: Belt	7"	14"
Deck	2.25"	8"
Turret	11"	17"

Looking at their speed and firepower, it is tempting to see the two as equivalent, but their respective protection shows that these were designs intended for wildly separate missions.

The former similarity, of course, was a clear British attempt to match the speed of the

⁷⁰ D'Eyncourt, "Legend of Particulars of Proposed new Capital Ships 1921-22 Programme," ADM 1/9232.

Lexingtons, while the armor issue speaks to the ridiculousness of the “battlecruiser” label. Whatever can be said about the relative merits of the designs, it seems laughable to place them in the same “battlecruiser” box.

In fact, it can be argued that both designs were admirably suited for their particular mission. As discussed earlier, the *Lexingtons* were intended to form the heart of the U.S. Navy’s future “scouting force,” a formation of battlecruisers, light cruisers, long-range destroyers, and, from about 1918, carriers, intended for “distantial” operations against Japanese islands, supply lines, and battlecruisers, as well as scouting for the battle fleet.⁷¹ Although their heavy guns and torpedoes would be used on the wings of the main battle line if they were present for a fleet action, their primary mission was very much not to attack foreign battleships.

On the British side, the evidence suggests that the Admiralty and the active fleet were on the same page, even without full War College and Admiralty staff “indoctrination.” Despite their lack of success in that role during the war, the Royal Navy persisted in seeing their battlecruisers as *tactical* scouts and a fast wing. The Atlantic Fleet’s exercises from early 1921 show the persistence of this thinking. Although the Atlantic Fleet’s battlecruiser commander, Vice Admiral Roger Keyes, took care to keep his “Blue” battlecruisers away from “Red’s” battleships in the opening stages of the encounters, matters were different when the fleets met. At that stage, Keyes used his ships as a fast wing, taking his ships within torpedo range of the other side’s battleships, or to put it another way, well within gun

⁷¹ Hone, *High Speed Thoroughbreds*, 25.

range.⁷² The G.3 design was clearly intended to fulfill this sort of role with less risk than pre-Armistice models.

Based on that evidence, Beatty's Board was a success in terms of warship design. Broadly speaking, there were two directions British battlecruiser policy could have gone immediately after the Great War. The first, the option taken by the United States, was to develop a battlecruiser policy that emphasized scouting and "distantial operations" rather than tangling with battleships. The second was to maintain the fast wing ideal and to design warships with increased survivability in that environment. G.3 represented that latter impulse and, arguably for the first time, united British battlecruiser design and practice. Historians may disagree on the wisdom of this particular doctrine, but *any* unified doctrine to guide design was better than the state of affairs at the start of the First World War.

However, these new plans were placed under a great deal of scrutiny outside of the Admiralty, led by retired naval officers. This criticism came not so much against the Admiralty's particular battlecruiser design choices (which, of course, were still closely held secrets), but over the wisdom of building any more capital ships after the lessons of the war. The retired admiral Percy Scott, along with other critics, had argued since the end of the war that the development of submarines and the prospective development of aircraft had rendered capital ships obsolete. Scott's concern was picked up on by the *Times*, which called for an inquiry into the lessons of the First World War in early December, 1920.⁷³ The Cabinet agreed, and on December 7, appointed a committee of the CID under Andrew Bonar Law,

⁷² "Atlantic Fleet Exercise Memoranda," January 8, 1921, Add. 82508, Roger Keyes Papers, British Library.

⁷³ "Our Future Naval Policy," *The Times*, December [6?], 1920, in *Future of Navies: Great Ships or----?: Leading Articles reprinted from The Times with Letters from Admiral Sir Percy Scott and others* (London: The Times Publishing Company, 1921), 6-7.

the Leader of the Conservative Party, to explore the issue of future capital ship construction, publicly announced two days later in Parliament.⁷⁴

Somewhat surprisingly, naval opinion on the issue was not monolithic. Although Beatty, a committee member, pushed hard for the resumption of capital ship construction, some naval officers, Scott foremost among them, pushed back against capital ships from the pages of the *Times*. Instead, the officers suggested, British naval strength should be based on aircraft and submarines, weapons that could strike against capital ships with some measure of impunity.⁷⁵ Likewise, the Bonar Law Committee heard similar suggestions from some of the serving officers they queried, most notably Rear Admiral de Bartolome and Herbert Richmond.⁷⁶

Against such opinions, the Admiralty put a full-court press on the committee. Although First Lord Long was a member of the committee, he was ill (Long would be replaced as First Lord by Viscount Arthur Lee in mid-February), and took little part in the committee's deliberations. However, Beatty was a member and, joined by his friend Winston Churchill, now Secretary of State responsible for the Army and the RAF, aggressively pushed the need for capital ships. Two points dominated the Admiralty position: first was the danger of the United States achieving naval superiority in the next few years absent British construction, and second was the danger that the warship industry in Britain would atrophy without new construction, especially manufacturers of armor plate and guns.⁷⁷ As Roskill

⁷⁴ Roskill, *Naval Policy I*, 221-4.

⁷⁵ "Flag Officer," "Guns and Torpedoes," December 1, 1920; Rear Admiral S.S. Hall, "Our Obsolescent Navy," December 7, 1920, in *Future of Navies*, 3-27.

⁷⁶ Roskill, *Naval Policy I*, 224.

⁷⁷ Beatty, CID Memorandum, December 14, 1920, CAB/24/119, TNA.

noted, Beatty's dire predictions of American strength ignored the obvious political problems faced by the U.S. Navy, but his concerns about the warship industry proved prescient.⁷⁸

As the committee approached its end, a serious split developed, as Beatty, Long, and Churchill announced that they could not support its recommendations. Bonar Law, ex-First Lord Eric Geddes, and Board of Trade President Robert Horne became convinced over the course of the inquiry that capital ships would soon become obsolete, replaced by cheaper airplanes and submarines, and attempted to issue a report to that effect. As a result, the committee, split down the middle, released two contradictory reports in March, solving nothing.⁷⁹

The upcoming Washington Conference allowed the Cabinet to have it both ways. Although its initial instinct was to deny the Navy money for new ships, Beatty appears to have convinced them that approaching negotiations with no construction pending would weaken Britain's position. As a result, the 1921-2 Estimates included a nominal sum, 2.5 million pounds, "for replacement of obsolete ships."⁸⁰ The Navy took that as a sign to request bids for four new fast battleships, but the sum was small enough that it could be easily written off if the conference took the ships off the table. Clearly, then, the Cabinet had given the Navy permission to build the four ships as a bargaining chip. The penurious initial outlay, however, confirmed that the Cabinet and Parliament dearly hoped the ships would never be built.⁸¹

⁷⁸ Roskill, *Naval Policy I*, 223.

⁷⁹ Roskill, *Naval Policy I*, 223-5.

⁸⁰ Roskill, *Naval Policy I*, 226.

⁸¹ Ferris, *Diplomacy*, 99.

As it happened, the British politicians got their wish at Washington, as did their American counterparts. Recapitulating the entire Washington Conference is beyond the scope of this project but at its end in 1922, the participants signed a set of treaties than ran very close to the “stop now” plan drawn up by Pratt and used in Hughes’s conference-opening speech.⁸² Apart from allowing two new capital ships, and letting Japan and the United States keep a nearly-completed ship apiece, the treaty provisions forced the three major naval powers to cut ships to a roughly 5:5:3 ratio in capital ship tonnage.

The three major powers were allowed to convert two of the just-cancelled ships each to aircraft carriers, allowed under the treaty as a way to use scrapped tonnage and allow for some naval development. In all three countries, the ships chosen for conversion were battlecruisers: *Lexington* and *Saratoga* from the United States, *Glorious* and *Courageous* from Britain, and *Akagi* and *Amagi* in Japan (*Amagi* was seriously damaged in the 1923 Great Kanto Earthquake and replaced for conversion by the battleship *Kaga*). Not only did battlecruiser hulls and power plants provide the size and speed for ideal carrier operations,

⁸² For the United States, the best naval perspective on the conference is provided by Harold and Margaret Sprout’s *Toward a New Order of Sea Power* (Princeton, 1940) and William Braisted’s *The United States Navy in the Pacific, 1909-1922* (Texas, 1971). Although the Sprouts wrote without the benefit of confidential American papers, they did have access to Col. Roosevelt’s diary. John Chalmers Vinson’s *The Parchment Peace* (Georgia, 1955) and Thomas Buckley’s *The United States and the Washington Conference* (Tennessee, 1970) both provide good coverage of the conference from a political and diplomatic standpoint. Soon after the Conference Dudley Knox wrote *The Eclipse of American Sea Power* (New York: American Army & Navy Journal, 1922), a rather intemperate book on how “America resigned to Britain the predominance in Sea Power,” but for all that it was a fair portrayal of how American officers (with the notable exception of Pratt) felt about the treaty. For Britain, the best source from a naval standpoint remains volume I of Roskill’s *Naval Policy Between the Wars*, though John Ferris’s *Men, Money, and Diplomacy* (Cornell, 1989) does a better job of explaining the financial constraints on British naval activity and planning. Yamato Ichihashi’s *The Washington Conference and After* (Stanford, 1928) provides a Japanese perspective from a member of their delegation although, as Buckley notes, Ichihashi knew far more about the Conference than he was willing to put down in his book.

but in the American and Japanese cases, using under-construction battlecruiser hulls also saved money. In Britain, it was a relief for the problematic *Courageous* and *Glorious* to follow their half-sister *Furious* into the carrier fleet.

For the U.S. Navy, it must be mentioned again that this was an undesirable state of affairs. As its leadership made clear in 1920-21, American policy and strategy called for battlecruisers and carriers acting in concert. Under the constraints of Hughes's negotiations, getting permission from Japan and Britain to build large carriers on the corpses of the 1916 battlecruisers was a coup, but the loss of those ships was felt keenly. In the wake of the Conference, the U.S. Navy concluded that the settlement left them vulnerable to the Royal Navy and the four British battlecruisers—ships the U.S. Navy had no counter for—loomed large in those calculations. Indeed, with Britain retaining 22 capital ships and the United States 18, *Hood*, *Renown*, *Repulse*, and *Tiger* represented the British margin over the American fleet.⁸³

In Britain, on the other hand, the post-conference focus was on a replacement for the four G.3 “super *Hoods*,” which were far larger than the allowable 35,000-ton restriction. Work on their replacements began early in Britain. By November 1921, Beatty had relayed enough information back to London to indicate that Britain would be allowed a limited amount of new construction, at a limit of 35,000 tons each. The super-*Hoods* obviously conflicted with the new size limit, so D'Eyncourt prepared two new battlecruiser designs, “F.2” and “F.3,” in late November after receiving information from Chatfield in Washington. The chief difference between the two was their armament: 6x15” in F.2 and 9x15” in F.3. As

⁸³ See, for example, the NWC analysis of the situation sent to Washington in October 1922 (Sims to Denby, October 12, 1922, M1140, subject 112-44, NARA Washington).

a result, F.2 had slightly more weight given over to armor and engines than F.3, the former having a speed of 30 knots, and the latter 28.5.⁸⁴

Both designs were weaker and smaller than the original battlecruiser proposals, but with less volume to protect, their armor was rather substantial by battlecruiser standards, with 12” side armor and 7” deck armor over the magazines. When D’Eyncourt declared that reduced armor scheme “can be accepted with reasonable security,” his pride was reasonable. Despite the handicap of displacement, D’Eyncourt had created a reasonable approximation of G.3’s capabilities on 13,000 fewer tons.⁸⁵ Both designs would have fit in with the British practice of placing battlecruisers in or near the line.

These decreases in armor appeared to be too much for Beatty and Chatfield. By the end of the Washington Conference, D’Eyncourt was working on a 23-knot (in practice, about 20-knot) battleship design that emphasized firepower and armor at the expense of speed. In fact, both of the latter specifications were nearly identical to those of the cancelled G.3s, save for slightly reduced deck armor. Stephen Roskill has suggested, probably correctly, that this design reflected the “lessons of Jutland,” as learned by the Admiralty staff, but that explanation is not sufficient.⁸⁶ After all, the same group of officers enthusiastically endorsed the G.3 design, set to enter production in 1922. It would be more accurate to say that this “treaty battleship” represented the lessons of Jutland as filtered through the technical constraints of the Washington settlement.

⁸⁴ D’Eyncourt, “Legend of Particulars of Proposed New Design F.2 and F.3,” November 30, 1921, ADM 1/9232, TNA.

⁸⁵ D’Eyncourt, “F.2 and F.3.”

⁸⁶ Roskill, *Beatty*, 315.

Both the British and American navies had many opportunities to move away from battlecruisers voluntarily in the aftermath of the First World War, and neither did so. In Britain, the cloud of Jutland hung over battlecruisers, and a move away from speedy, expensive, capital ships would have been understandable. In the United States, the internal and external pressures against continuing with the *Lexingtons* were intense; acquiescing to the fast battleship or carrier agitation in and outside of the Navy would have certainly been easier politically. In the end, both navies stuck with their battlecruisers as long as they did (too long, many historians would argue), because their understanding of warfare required some sort of large, fast, ship for scouting (the U.S.) or the fast wing (the U.K.). If we are to assign credit or blame for the end of the battlecruiser era, the lion's share must go to Senator Borah, Secretary Hughes, and the postwar British economy well before aircraft carriers, submarines, or the legacy of Jutland.

CONCLUSION: THE GHOST SQUADRONS OF WASHINGTON

Looking back from 2015, battlecruisers may seem like a failed experiment from World War I period arms races—"eggshells with hammers," to borrow a phrase from Churchill—of little more than antiquarian interest in the present. After all, it has been a very long time since battlecruisers were a major part of naval construction. The Washington Conference, which ended the "battlecruiser age," finished more than 90 years ago, and the world's last battlecruiser, depending on your definition, was commissioned sometime

between 1920 (*Hood*) and 1944 (*Alaska* and *Guam*), and certainly left service soon after the Second World War.¹

Still, the history relayed in the previous chapters touches on issues that are still very relevant today. The salience of *Proceedings* to debates within the U.S. Navy has declined somewhat since Mahan and Sims were at loggerheads over Tsushima, but its recent numbers suggest that arguments over the interplay between warship design, doctrine, and construction remain. For example, *Proceedings* recently published an article, “Designing Future Warships,” whose conclusions resemble this project’s own:

[In designing warships] the first step . . . is achieving a consensus on the size and shape of future ships. Leadership to create this vision is less a matter of seniors’ directions than an organizational consensus created by experienced officers with the cooperation of experienced shipbuilders. . . . The goal should be to seek a bottom-up consensus while being careful to avoid a top-down order. . . . While every officer has an opinion on the mission and design of warships, this organizing function cannot be a senior officers’ debating society but a cabal of dedicated, knowledgeable, and respected officers, engineers, and builders who represent all aspects of the mission, design, and execution of the program. . . . The outcome of this initial effort is to define in general terms the warfare requirements the ship is to fulfill.²

As if to drive the point home, this piece was placed just seven pages before one on the troubled Littoral Combat Ship program.³

The warship design process the author describes sounds much like a blend of the successes of American and British approaches to warship design in the First World War period. The “bottom-up consensus” in the United States was, by the First World War, very much in favor of building battlecruisers for the Navy. Likewise, a “cabal of dedicated,

¹ The Soviet/Russian *Kirov/Admiral Ushakov* class are commonly referred to as “battlecruisers” in the United States, highlighting how little the American naval community remembers about the U.S. Navy’s battlecruiser program.

² Rear Admiral (Ret.) William J. Holland Jr., “Designing the Future Warships,” *Proceedings*, January 2015, 25.

³ Gregory V. Cox, “Lessons Learned from the LCS,” *Proceedings*, January 2015, 36-40.

knowledgeable, and respected officers, engineers, and builders,” is a fair description of the 1911 and 1912 Summer Conferences that proved so useful in suggesting the form and function of the *Lexingtons*.

There are not many positive lessons to draw from the introduction of battlecruisers into British service, but Beatty’s Admiralty after the war was organized on ideal lines for linking warship design and policy. The staff representatives on the Board, especially Chatfield, were able to link the supposed lessons of the First World War with a modified surface warfare doctrine, and tie both together in a design, G.3, that reflected the Royal Navy’s consensus on the future direction of naval warfare.

These lessons do not suggest any specific policies or stratagems for the present. That is always a dangerous exercise for historians, and more so in this particular case; both navies have allowed their capacity to design warships wither since the Second World War.⁴ Still, there is, I think, some utility in relating two general conclusions from this project. The first is the importance of doctrine in weapons system acquisition. Along with its operational uses, a well-crafted doctrine provides planners with some feel for the long-term needs of the service and the capabilities required to fill those needs. Whatever one might say about the design of the *Lexington*-class or G.3, they were intended for a specific set of missions within a recognized and accepted operational framework.

This project also highlights the salience of structural factors. The story of battlecruisers in the two navies is not just one of personal enthusiasms and perceived strategic necessities. The creaking machinery of American naval administration and the Royal Navy’s mixture of centralized administrative responsibility and diffuse executive

⁴ See Richard Neustadt and Ernest May’s *Thinking in Time: The Uses of History for Decision Makers* (New York: Macmillan, 1986) for this basic argument.

responsibility were critical to warship design and development in the two countries. Were Fisher an American officer, for example, he would have never gotten the chance the opportunity to put his schemes into action. Perhaps, we would remember his battlecruiser ideas with the same mixture of skepticism and amusement we view F.H. Schofield's torpedo battleship.

That prewar American system of administration was far too flawed and inefficient to represent an ideal blueprint, but the dissemination of policy and operational ideas to all levels of the fleet and the careful consideration of new ideas and models were factors worth preserving. So, too, was the intimate relationship between the planning, executive, and operational functions of the Royal Navy's Admiralty in the years after the First World War.

Lastly, this project shines some light on a rather neglected episode of American naval history. Consideration of the American battlecruiser program shines light on the U.S. Navy's decision-making process and intellectual development in World War I. Both were placed under a unique strain by the novelty of battlecruisers. At the same time, proper consideration of the American battlecruiser program is critical to understanding the U.S. Navy in the interwar years, especially the development of carrier warfare and the design of the heavy cruisers used in the Second World War.

Both navies' experience with the post-treaty "tinclad" heavy cruisers shows that they had, for the time being, learned these lessons. The transition was easier for the Royal Navy; the Washington Treaty's cruiser limitations were organized around the capabilities of the

British *Hawkins*-class light cruisers. These ships were an unconscious echo of Fisher's first battlecruisers, designed for the sea lane protection and imperial defense missions. However, instead of a small number of very capable, centrally located, ships, the new model focused on a large number of smaller ships at sea. Although there were complaints that *Hawkins*—"deficient in speed, protection, and gun power"—represented a return to the armored cruiser class, the consensus was that the *Hawkins*-class design was a sound one for its intended mission.⁵ Like the *Invincibles* at their date of construction, the *Hawkins*-class ships could catch and destroy anything smaller and weaker, while being able to run away from anything more powerful.⁶

In the United States, the cancellation of the *Lexingtons* did not dim the leadership's enthusiasm for a cruiser to dominate the scouting and screening situations in the Pacific. To that end, while developing their post-Washington policy, the General Board held it as an article of faith that they would "build no small cruisers."⁷ Several months later, Captain Schofield, now a General Board member, laid out the Navy's reasoning on cruisers in a lecture to the Army War College. There were, he told his audience, only two important capabilities for a new cruiser:

[S]peed and gun power . . . it will probably be necessary in our new designs to forsake nearly all attempt at passive defense of these vessels—armor— in order to have weight available for the full development of speed, steaming radius and gun power. . . . [O]nce an American cruiser comes in contact with an enemy cruiser its gun power must be superior to the gun power of that enemy cruiser and its speed

⁵ The *Engineer*, quoted in *Proceedings*, July 1919, 1247.

⁶ "Professional Notes," *Proceedings*, November 1920, 2013.

⁷ General Board, "U.S. Naval Policy Based on the Treaty for Limitation of Naval Armaments," December 1, 1922 RG 80, E19, piece #1158-85:2 NARA Washington. Roskill (*Naval Policy I*, 333) unkindly calls this document "platitudinous," with a value that was "not readily apparent." Those basic platitude, were a key part of the first step in the applicatory system that had permeated the U.S. Navy by late 1922.

sufficient to keep its guns within range, no matter what sacrifices in protection have to be made to achieve these superiorities.⁸

This, of course, was identical to the Board's rationale for building the *Lexington* class in the first place. While the Washington Conference made it impossible to design a ship that could meet the *Kongos* on equal terms, Schofield's lecture suggested that the Board was trying to preserve as much of that capability as possible on 10,000 tons—building down from the battlecruiser class instead of up from light cruisers.

The U.S. Navy's strategic elite also recognized that the cancellation of the *Lexingtons* left a hole in the American force structure that no amount of 10,000-ton "heavy" cruisers could completely fill. Both major competitors of the U.S.—Japan, and the U.K.—possessed battlecruisers, and assessments of American weakness in those vessels were grim. In October 1922, Sims noted, in a memorandum for the Navy Department, "the greater speed of the British heavy ships which would enable them to impose . . . disadvantageous conditions . . . should battle occur."⁹ After consultation with the Bureau of Ordnance, the General Board endorsed Sims's conclusions, though they felt his calculations overrated the survivability of British battlecruisers.¹⁰ As late as 1930, American war planners rated British battlecruiser strength as a major British advantage over the U.S. Fleet in raiding as well as on the fast wing in a major battle.¹¹

⁸ Captain F.H. Schofield, "Some effects of the Washington Conference on American Naval Strategy," September 22, 1923, Folder 4, Box 100, RG 8, NHC, 4.

⁹ Sims to SecNav, "Superiority of the British over the United States in the Fighting Strengths of the Capital Ships (excluding aircraft carriers) resulting from the Treaty Limiting Naval Armaments," October 12, 1922, M1140, Roll 27, Subject 112-44.

¹⁰ General Board to SecNav, November 29, 1922, M1140, Roll 27, Subject 112-44.

¹¹ Christopher M. Bell, "Thinking the Unthinkable: British and American Naval Strategies for and Anglo-American War, 1918-1931," *The International History Review*, Vol. 19, No. 4 (November 1997), 801-2.

Still, the U.S. Navy tried their best to make up those qualities as best they could.

Compare, for example, the first American “tinclad” with the first generation of post-Treaty

British heavy cruisers:

	USS <i>Pensacola</i> (1925)	British County-class (1924)
Speed	32.7 kts	31.5 kts
Main Battery	10x8”	8x8”
Armor: Belt	4”	4.5”
Deck	1.75”	3.5”
Turret	1.5”	1”

As the table shows, the Americans were willing to make more sacrifices in armor to achieve a higher speed and more firepower than the British warship. The difference in protection, in fact, is greater than the table suggests, because *Pensacola* had minimal torpedo protection, while the British *County*-class were built with anti-torpedo bulges.¹²

The *County*-class cruisers were designed for trade protection, while *Pensacola* was undoubtedly a battlecruiser replacement, as Schofield’s words suggested. In keeping with the final plans for the *Lexingtons*, the American heavy cruisers, as they were completed, were detailed to the Scouting Fleet (the Scouting Force from 1932). As the pre-Washington plans indicated, this was a force of cruisers and long-range destroyers able to operate independently at great remove from the battle fleet. The carriers, on the other hand, steamed with the Battle Fleet/Force, where they provided long-range strike power and some scouting, though the main work of strategic aerial scouting was eventually detailed to long-range

¹² Friedman, *U.S. Cruisers* (Annapolis: Naval Institute Press, 1984), 117. The entire discussion of the tinclads on pp. 115-37 is illuminating. As Friedman makes clear, the *form* of American CAs was derived from the *Omaha*-class light cruisers. However, the General Board’s consistent urges for speed and firepower at the expense of protection betray the *Pensacola*’s conceptual lineage.

flying boats.¹³ This division of responsibilities strongly suggests that the Navy's leadership was telling the truth in 1920-21 when they claimed that aircraft carriers were not a replacement for battlecruisers: instead, they saw them as warships with very different, and necessary, missions.

Still, the treaty cruisers, especially the American ones, did not represent a resounding success. Based on their record in the Second World War, the ships placed too much emphasis on speed and firepower, and not nearly enough on protection. Still, one should not lose sight of the fact that both design strands represented successful attempts to build ships under severe constraints and tailored to a specific set of missions; commerce protection on one hand, and battle scouting on the other. They show again that both navies had, by the Washington Conference, managed to link war planning and warship design to a degree unimaginable in 1904.

In both the United States and Britain, the years between 1904 and 1922 were key to the development of robust organs of naval administration and policymaking. At the beginning of this period, neither navy's organization was ideal; the Royal Navy's was too reliant on individual biases and enthusiasms, while the American system lacked clear lines of

¹³ Albert A. Nofi, *To Train the Fleet for War: The U.S. Navy Fleet Problems, 1923-1940* (Newport: Naval War College Press, 2010), 9. Also see Nofi's discussion of 1931's Fleet Problem XII, the first to involve the new heavy cruisers on pp. 139-48.

authority. By 1922, however, both navies had created policymaking systems that combined input from well-trained staff officers with clearly delineated policymaking organs.¹⁴

Battlecruisers provide an ideal window onto to these processes. Although they were built in relatively small numbers, their newness presented challenges that other types of warship did not. Unlike submarines, another relatively new ship class, battlecruisers did not demand entirely new ways of thinking for naval organizations. At the very least, submarines required combining technologies—torpedoes, internal combustion engines, battery power, to name the most obvious—in new forms with which most sailors were unfamiliar. To some submarine partisans, including Admiral Fisher, effective submarine utilization required a wholesale rethinking of naval force structure and tactics.

Compared to that, the requirements for battlecruisers were rather mild. Battlecruisers sprang from the tweaking or combining of attributes that naval professionals had been dealing with for the entire ironclad age. It is true that the story of battlecruisers involved new technologies like advanced fire control, turbine engines, and ever-larger guns, but these were technologies that mirrored long-term developments in battleship design. Although battlecruisers, arguably, could not have existed without steam turbines and director fire control, these were not technologies unique to battlecruisers.

Instead, battlecruisers required measured consideration in the context of prevailing naval strategy and tactics.¹⁵ Battlecruisers could not be profitably fit into pure cruiser or

¹⁴ The American system, which set up the General Board and the Office of Naval Operations in a somewhat adversarial relationship was not, from the outside, as ideally organized as the post-Wemyss Admiralty but, as John Kuehn demonstrates in *Agents of Innovation*, the interwar successes of the U.S. Navy were so great as to rule out pure accident.

¹⁵ That statement, of course, assumes that adopting the entirety of “Fisher’s revolution” was a non-starter in contemporary navies. Despite some compelling evidence as to Churchill’s policies in the concluding chapters of *Sir John Fisher’s Naval Revolution*, there is little evidence that the mass of officers in Britain, or any other country, were capable of accepting such radical changes.

battleship molds. Though more capable than armored cruisers, battlecruisers were far more expensive, and never built in the numbers to offer a one-for-one replacement. Likewise, although they shared certain visual similarities to dreadnought battleships, battlecruisers could not fill the battleship role without incurring an unacceptable level of risk.

Consideration of battlecruiser doctrine was hamstrung by their novelty. During the entirety of the “Battlecruiser Age,” there was no single pattern for battlecruiser design, as arguably existed with dreadnought battleships. The British, German, Japanese, and Americans built battlecruisers to unique patterns, optimized for some possible missions, but compromised in others. German battlecruisers, for example, were built with protection that, in many other navies, would place them in the battleship category. Although the resultant ships were somewhat slower than the British counterparts, and lacked range, they were ideal for the *Kaiserliche Marine’s* strategy of using them in the thick of battle.

As the British example shows, battlecruisers built for one mission but used for another, were dangerous for their crews. Admiral Beatty’s operational doctrine during the First World War, for example, would have been perfectly sound with the heavily armored German battlecruiser force, but was reckless with the ships under his command in 1916. On the other hand, the U.S. Navy developed their battlecruiser doctrine in concert with their battlecruiser design, which emphasized speed and firepower over protection. Battlecruisers, then, highlight the importance of naval institutions, culture, and doctrine. Naval administrators and staff officers may not have had the romantic cachet of dashing battlecruiser commanders steaming through battle at thirty knots, but their work was critical in tying warship construction with warship utilization, an especially important mission for warships with no “traditional” mission or design.

Based on Fisher's invention of the type, and the loss of three at Jutland, discussions of battlecruiser development tend to focus on the Royal Navy. Many of the conclusions reached about the utility of battlecruisers draw on evidence from the Royal Navy's experience with the types, especially the battles off the Falklands and Jutland. As this dissertation has, I hope, shown, the Royal Navy, before World War I, was, perhaps, uniquely ill placed to initiate a new warship class. This role was something of a novelty for the Royal Navy, which had historically preferred to learn from other navies' mistakes and teething issues. It was a role that sat uneasily with its structure and typical management style. A navy that, in Richmond's words, was "in the hands of every faddish who has a gift of the gab and a little more intelligence than the average," lacked the capacity to make major innovations responsibly.¹⁶

Battlecruisers show the proof of this. The structure of the Royal Navy prevented the Admiralty from fully adopting Fisher's battlecruiser ideas or fully rejecting them. Whatever one thinks about the soundness of his views, either option would have been preferable to spending tens of millions of pounds on ships with no agreed-upon mission. From the release of Fisher's first "Naval Necessities" to the building of *Courageous*, *Glorious*, and *Furious*, British battlecruiser design was proof of a very broken system. Substantial—and effective—changes only came when the First World War dredged up a long list of problems with Admiralty administration.

These were exacerbated by the strategic culture of the Royal Navy's prewar leadership. Their opponents dismissed them as "materialists," and that label is apt. What, for example, was the point of HMS *Lion*? Fisher, of course, believed that it would be the ship

¹⁶ Herbert Richmond, Journal, April [6], 1907, RIC/1/7, NMM.

that completed the battlecruiser/battleship transition, but it was clear well before *Lion's* design that the Admiralty Board would not consent to such a radical plan. For their part, once the issue of battleship replacement was off the table, the rest of the Admiralty Board seemed content to have a battlecruiser design faster and more powerful than extant German construction, without stopping to consider what mission *Lion* and future battlecruisers would have.

The comparatively ignored American battlecruiser program throws these issues into sharp relief. I leave it to the reader to come to their own determination as to the utility of American battlecruiser design and doctrine, but it was a robust process. In the U.S. Navy, these ships were a topic of lively debate at all levels of the officer corps. From Ensign Riggs's *Proceedings* article, to War College Conferences, to General Board deliberations, the U.S. Navy thoroughly examined all aspects of battlecruiser function and design in the years before the First World War. Although the General Board could not bring itself to press home the case for battlecruiser construction until 1915, the battlecruisers in the 1916 Navy Bill were anything but an afterthought. Instead, they were a key facet of the Board's three-year-old vision of how an effective modern navy ought to be organized.

By the Washington Conference, however, the U.S. Navy found itself in a position akin to the Royal Navy before the war, as the General Board pressed for the construction of ships that most naval officers—certainly most World War I commanders and staff officers—saw as unequal to wars with Japan or the United Kingdom. Most importantly, the Chief of Naval Operations and his new planning staff found the *Lexington* designs as inimical to their war plans. Although formal responsibility for war plans did not rest with OpNav until 1923,

this breach between the General Board and OpNav was a troubling indication of what could happen with two bodies with overlapping responsibilities.¹⁷

Even though OpNav and the General Board disagreed on battlecruiser design, they agreed on the mission for battlecruisers built to the Board's pattern. Neither OpNav nor the active fleet would have been willing to send the *Lexingtons*—"simply huge destroyers"—against Japanese battleships or even an equal number of battlecruisers.¹⁸ This was the result of a pool of staff and high-ranking executive officers who had been thoroughly "indoctrinated" by the War College. Officers trained, as many OpNav staffers were, to utilize Newport's "applicatory" method of approaching problems could not have consented to sending under armored battlecruisers into to the thick of battle.

These conclusions regarding the American battlecruiser program are the project's major intervention into the historical literature. American naval historiography for this period tends to look back from the 1940s to find the antecedents of the fearsomely effective U.S.N. of the Pacific War. With regard to battlecruisers, this viewpoint tends to distort or ignore the Navy's view of and plans for their *Lexington*-class battlecruisers. That approach can be profitably taken back to the mid-1920s, but has considerably less value before the Washington Conference. Before 1922, the Navy's intellectual energies and productive capacities were turned to a set of issues that bore little relation to the monomaniacal focus on Japan exhibited from 1923 on.

Viewed in their proper historical context, the six American battlecruisers were an important part of the Navy's bid for global dominance, which the General Board had been

¹⁷ Edward S. Miller, *War Plan Orange* (Annapolis: Naval Institute Press, 1991), 82.

¹⁸ Captain H.E. Yarnell to Admiral Benson, April 2, 1919, M1140, Subject 100-17.

laying the groundwork for as early General Board No. 420 in 1903. Three of the planned *Lexingtons*—*Constellation*, *United States*, and *Constitution*—bore names from the Navy’s “original six” frigates from 1794, and just like their forebears, the American battlecruisers marked an inflection point in American naval development. In this case, the development of battlecruisers, and the explication of their mission showed that the U.S. Navy had begun to realize that a fleet of battleships was not enough to win a war; even a war decided by a titanic fleet action.

The probable role of these ships has been discussed at length elsewhere in the dissertation, but it is worth reiterating that the General Board and, especially, officers at the War College felt that these ships had a value beyond their use in the various iterations of War Plan Orange. From about 1911, the subset of American officers who expressed opinions on matters of naval policy were convinced that battlecruisers were crucial to the functioning of a serious and balanced fleet. The six battlecruisers were the last piece of making the U.S. Navy a force to be reckoned with, in the minds of its leadership.

The Washington Conference halted battlecruiser development in both countries, but it is possible to discern the beginnings of Anglo-American convergence. Both services appeared to be moving towards the “fast battleship” model exemplified by HMS *Hood* and the type C sketch design in the U.S.: ships with heavy guns and armor that, while fast, were not quite the fragile “high speed thoroughbreds” that both navies designed during the First World War. Although there were still likely differences in their employment—the British ships were battleship *and* battlecruiser replacements, intended to supplement the battle line, while American doctrine would have probably used many type C ships for “distantial”

operations—the designs themselves were converging, much like dreadnought battleship designs around the world did by about 1910.

Battlecruisers were the cutting-edge weapons systems of their days. Their effectiveness relied upon, if not always technological innovation, wringing every bit of capability out of legacy technologies.¹⁹ At the beginning of the battlecruiser age, the *Invincible*-class ships helped to introduce turbine engines in major warships, and their development was intimately bound up in new technologies for fire control and spotting. At its end, C&R constructors put a new turbo-electric drive into the *Lexingtons* and fretted over placing the requisite number of boilers in such a narrow hull. Even the torpedo-attack mission, proposed a various times for both countries' battlecruisers, relied on the development of new torpedoes with unprecedented range.

The engineering efforts in both the United States and Britain were successful, but the necessary mental efforts were less successful. The American General Board took several years to work out a battlecruiser mission and, in the meantime, allowed the U.S. Navy to be lapped by its three major competitors. The British Admiralty was unable to develop and promulgate a policy for battlecruiser design and employment until the postwar years. Fleet commanders, left to their own devices during the First World War, placed battlecruisers in unreasonable situations, leading to the deaths of thousands of sailors at Jutland. Though both navies entered the Washington Conference with set battlecruiser doctrines, their maturation took far too long.

¹⁹ Refer, for example, to Sumida's discussion of fire control machinery in *In Defence of Naval Supremacy* and McBride's discussion of the *Lexingtons* and the turbo-electric drive in *Technological Change and the United States Navy*.

Battlecruisers may or may not have been a developmental dead end in naval history. Their well-documented problems cannot, however, be chalked up to “faulty” design, as the officers of the BCF claimed in 1916, and many historians have in the intervening century. In the immediate postwar years, both the American and British navies found a place for battlecruisers built to a pattern that reflected their service doctrine. If the Washington Conference had been less effective, battlecruisers would have been critical to both sides in the Third Anglo-American War of 1925, and it is a fair bet that there would have been no repeat of Jutland.

APPENDIX A: THE BIRTH OF THE BATTLECRUISER

	<i>Tennessee</i> (US)	<i>Tsukuba</i> (JP)	<i>Lord Nelson</i> (UK)	<i>Minotaur</i> (UK)	<i>Dreadnought</i> (UK)	<i>Invincible</i> (UK)	<i>Blücher</i> (DE)
Type	Armored cruiser	Proto-battlecruiser	Battleship	Armored cruiser	Battleship	Battlecruiser	Proto-battlecruiser
Program Year	1903	1904	1904	1904	1905	1905	1906
Displacement (tons)	14,500	13,750	16,500	14,600	18,110	17,370	15,590
Length (feet)	504	450	44.6	490	527	567	530
Breadth (feet)	73	75	79.6	74.5	82	78.5	80
Designed Speed (kts)	22	20.5	18	23	21	25	24.25
Horsepower	28,000	20,500	16,750	27,000	23,000	41,000	34,000
Armor (in): Belt	5	7	12	6	11	6	7
Main Deck	1.5	3	1.5	2	3	2.5	3
Turret	7	7	12	7	11	10	7
Barbette	7	7	12	8	11	7	7
Main Battery	4x10"	4x12"	4x12"	4x9.2"	10x12"	8x12"	12-8.2"
Secondary Battery	22x3"	12x6", 12x4.7"	10x9.2" 24x3"	10x7.5"	8x3"	12x4"	8-5.9"
Crew	874	879	752	825	695-773	784	847-1026

APPENDIX B: BATTLECRUSIERS FROM THE 2ND GENERATION TO WASHINGTON

	<i>Von der Tann</i> (DE)	<i>Lion</i> (UK)	<i>Kongo</i> (JP)	<i>Queen Elizabeth</i> (UK)	<i>Renown</i> (UK)	<i>Courageous</i> (UK)	<i>Hood</i> (UK)	<i>Lexington</i> (US)	<i>Amagi</i> (JP)	<i>G.3.</i> (UK)
Program Year	1907	1909	1911	1912	1915	1915	1916	1916 (1919 redesign)	1920	1921
Displacement (tons)	19,064	26,270	27,500	27,500	26,000	19,171	42,670	43,500	41,217	48,000
Length (feet)	563	700	704	645	794	786	860	850	826	860
Breadth (feet)	87	89	92	90.5	90	81	104	105	101	106
Designed Speed (kts)	24.75	27	27.5	25	32	32	31	33.5	30	31-2
Horsepower	43,600	70,000	64,000	56,000	112,000	90,000	151,000	180,000	131,200	160,000
Armor (in.): Belt	10	9	8	13	6	3	12	7	10	14
Main Deck	3	1	1.75	2	1	1.5	3	2.5	3.9	8
Turret	9	10	9	11	8	13	15	11	11	17
Barbette	9	9	10	10	7	7	12	9	11	14
Main Battery	8x11.1"	8x13.5"	8x14"	8x15"	6x15"	4x15"	8x15"	8x16"	10x16"	9x16"
Secondary Battery	10x5.9"	16x4"	16x6"	14x6"	25x4"	18x4"	12x5.5"	16x6"	16x5.5"	12x6"
Crew	923-1174	997	1201	925-951	953-1223	828-842	1397-1477	1297-1326	N/A	~1500

BIBLIOGRAPHY

Archival Sources

United States

Library of Congress, Washington, DC.

National Archives I, Washington DC.

Naval Historical Collection, U.S. Naval War College, Newport, RI.

Southern Historical Collection, Louis Round Wilson Library, University of North Carolina at Chapel Hill.

United Kingdom

British Library, London.

Caird Library, National Maritime Museum, Greenwich.

Churchill College Archives Centre, Churchill College, Cambridge.

Imperial War Museum, London.

The National Archives, Kew.

Printed Primary Sources

Admiralty. *Battle of Jutland: Official Despatches*. London: HMSO, 1920.

Bacon, Reginald. *The Jutland Scandal*. London: Hutchinson & Co., 1925.

_____. *From 1900 Onward*. London: Hutchinson & Co., 1940.

“Barfleur” [Reginald Custance]. *Naval Policy: A Plea for the Study of War*. Edinburgh and London: Blackwood, 1907.

Chatfield, Alfred Ernle Montacute. *The Navy and Defence: The Autobiography of Admiral of the Fleet, Lord Chatfield*. London: Heinemann, 1942-47. Two Volumes.

- Colomb, Philip. *Naval Warfare, Its Ruling Principles and Practice Historically Treated*. Annapolis, Md.: Naval Institute Press, 1990. Reprint of 1891 edition.
- Corbett, Julian. *Some Principles of Maritime Strategy*. London: Longmans, Green and Co., 1911.
- _____. *The Spectre of Navalism*. London: Darling & Son, Ltd., 1915.
- _____. *Maritime Operations in the Russo-Japanese War, 1904-5*, V Annapolis, MD; Naval Institute Press, 1994.
- Custance, Reginald. *The Military Growth of the Capital Ship*. Edinburgh: Blackwood, 1910.
- Daniels, Josephus. *The Cabinet Diaries of Josephus Daniels*, edited by E. David Cronon. Lincoln, NE: University of Nebraska Press, 1963.
- Fisher, John Arbuthnot. *Memories and Records*. New York: Doran, 1920.
- Fiske, Bradley. *From Midshipman to Rear-Admiral*. New York: Century, 1919.
- Halpern, Paul G., ed. *The Keyes Papers: Selections from the Private and Official Correspondence of Admiral of the Fleet Baron Keyes of Zeebrugge*. London: Navy Records Society, 1972-81.
- Hankey, Maurice. *The Supreme Command, 1914-1918*. London: Allen & Unwin, 1961.
- Hayes, John D. and Hattendorf, John B. eds. *Writings of Stephen B. Luce*. Newport: Naval War College Press, 1975.
- Hase, Georg von. *Kiel and Jutland*. Trans. Chambers, Arthur and Holt, F.A. London: Skeffington & Son, Ltd., 1927.
- Ichihashi, Yamato. *The Washington Conference and After*. Stanford, CA: Stanford University Press, 1928.
- Jane, Fred T. *Heresies of Sea Power*. London: Longmans, Green & Co., 1906.
- Jellicoe, John. *The Grand Fleet 1914-1916: Its Creation, Development, and Work*. New York: Doran, 1919.
- _____. *The Crisis of the Naval War*. New York: Doran, 1920.
- Kemp, P.K. *The Papers of Admiral Sir John Fisher*. London: Navy Records Society, 1960-1964. Two Volumes.
- Krafft, Herman F. and Norris, Walter B. *Sea Power in American History: The Influence of the Navy and the Merchant Marine upon American Development*. New York: Century, 1920.

- Lumby, E.W.R. *Policy and Operations in the Mediterranean 1912-14*. London: Navy Records Society, 1970.
- Mahan, Alfred Thayer. *The Influence of Sea Power upon History, 1660-1783*. Boston: Little, Brown, 1890.
- The Interest of America in Sea Power, Past, Present and Future*. Boston: Little, Brown, 1917, first printing 1897.
- _____. *The Problem of Asia and its Effect upon International Policies*. London: Sampson Low, Marston, 1900.
- _____. *Naval Strategy*. Westport, CT: Greenwood Press, 1975. Reprint of 1911 edition.
- _____. *Letters and Papers of Alfred Thayer Mahan, Volume III: 1902-1914*. Edited by Robert Seager II and Doris D. Maguire. Annapolis, MD: Naval Institute Press, 1975.
- Marder, Arthur, ed. *Fear God and Dread Nought: The Correspondence of Admiral of the Fleet Lord Fisher of Kilverstone*. London: J. Cape, 1952-59. Three Volumes.
- Patterson, A. Temple, ed. *The Jellicoe Papers: Selections from the Private and Official Correspondence of Admiral of the Fleet Earl Jellicoe of Scapa*. London: Navy Records Society, 1966-68. Two Volumes.
- Ranft, Bryan. *The Beatty Papers*. London: Navy Records Society, 1989-1993. Two Volumes.
- Richmond, Herbert. *Portrait of an Admiral: The Life and Papers of Sir Herbert Richmond*. Marder, Arthur Ed. Cambridge, MA: Harvard University Press, 1952.
- Simpson, Michael, ed. *Anglo-American Naval Relations, 1917-1919*. Aldershot: Navy Records Society, 1991.
- Sims, William S. *The Victory at Sea*. Annapolis: Naval Institute Press, 1984. Reprint of 1920 original edition.
- Sumida, Jon Tetsuro, ed. *The Pollen Papers: The Privately Circulation Printed Works of Arthur Hungerford Pollen, 1901-1916*. London: Navy Records Society, 1984.
- Tillman Jr., Benjamin R. *Navy Yearbook: A Resume of Annual Naval Appropriation Laws from 1883 to 1917, Inclusive*. Washington: Government Printing Office, 1916.
- The Times. Future of Navies: Great Ships or ----?: Leading Articles reprinted from the Times with Letters from Admiral Sir Percy Scott and Others*. London: Times Publishing Company, 1921.
- Tracy, Nicholas, ed. *The Collective Naval Defence of the Empire, 1900-1940*. Aldershot: Navy Records Society, 1997.

U.S. Department of the Navy. *The American Naval Planning Section, London*. Washington: Government Printing Office, 1923.

U.S. Naval War College. *Rules for the Conduct of the War Games*. Washington: Government Printing Office, 1905.

Strategic Planning in the U.S. Navy: Its Evolution and Execution, 1891-1945. Wilmington, DE: Scholarly Resources, 1977. Microfilm.

Periodicals and Annual Publications

Annual Reports of the Navy Department

Army and Navy Journal

Brassey's Naval and Shipping Annual

The Engineer

Jane's Fighting Ships

Naval Review

The Navy: an Illustrated Monthly Devoted to the Interests of the United States Navy

Navy League Journal

New York Times

North American Review

Proceedings of the United States Naval Institute

Royal United Services Institution Journal

Sea Power

The Times

Transactions of the Institution of Naval Architects

Washington Post

Secondary Sources

- Adams, John. *If Mahan Ran the Great Pacific War*. Bloomington: Indiana University Press, 2008.
- Adamsky, Dima. *The Culture of Military Innovation; The Impact of Cultural Factors on the Revolution in Military Affairs in Russia, the US, and Israel*. Stanford, CA: Stanford Security Studies, 2010.
- Albion, Robert Greenhalgh. *Makers of Naval Policy 1798-1947*, edited by Rowena Reed. Annapolis: Naval Institute Press, 1980.
- Andrade, Ernest. "The Battle Cruiser in the United States Navy." *Military Affairs*, Volume 44, No. 1 (February 1980).
- Armstrong, Benjamin. *21st Century Mahan*. Annapolis: Naval Institute Press, 2013.
- Bacon, Reginald. *The Life of Lord Fisher of Kilverstone*. Garden City, NY: Doubleday, Doran, and Co., 1929.
- _____. *The Life of John Rushworth, Earl Jellicoe*. London: Cassell, 1936.
- Baer, George W. *One Hundred Years of Sea power: The U.S. Navy, 1890-1990*. Stanford, CA: Stanford University Press.
- Bagby, Wesley M. *America's International Relations Since World War I*. Oxford: Oxford University Press, 1999.
- Barnett, Correlli. *The Collapse of British Power*. New York: Morrow, 1972.
- Barnett, Roger W. *Navy Strategic Culture: Why the Navy Thinks Differently*. Annapolis: Naval Institute Press, 2009.
- Bassett, Ronald. *Battle-Cruisers: A History 1908-48*. London: Macmillan, 1981.
- Beaver, Paul. *The British Aircraft Carrier*. Wellingborough, UK: Patrick Stephens, 1984.
- Bell, Christopher M. "Thinking the Unthinkable: British and American Naval Strategies for an Anglo-American War, 1918-1931." *The International History Review* 19, No. 4 (November 1997).
- _____. *The Royal Navy, Seapower, and Strategy between the Wars*. Stanford, CA: Stanford University Press, 2000.
- _____. "Sir John Fisher's Naval Revolution Reconsidered." *War in History* 18, No. 3 (July 2011).

- _____. "On Standards and Scholarship: A Response to Nicholas Lambert. *War in History* 20, No. 3 (July, 2013).
- _____. *Churchill and Sea Power*. Oxford: Oxford University Press, 2013.
- Bennett, Geoffrey. *Coronel and the Falklands*. London: Pan Books, 1962.
- _____. *Naval Battles of the First World War*. London: Batsford, 1968.
- Besch, Michael D. *A Navy Second to None: The History of U.S. Naval Training in World War I*. Westport, CT: Greenwood Press, 2002.
- Biddle, Tami Davis. *Rhetoric and Reality in Air Warfare*. Princeton: Princeton University Press, 2002.
- Black, Nicholas. *The British Naval Staff in the First World War*. Woodbridge, UK: Boydell, 2009.
- Blyth, Robert J.; Lambert, Andrew; and Rüger, Jan eds. *The Dreadnought and the Edwardian Age*. Farnham, UK: Ashgate, 2011.
- Bönker, Dirk. "Militarizing the Western World: Navalism, Empire, and State-Building in Germany and the United States Before World War I." Ph.D. Dissertation, Johns Hopkins, 2002.
- _____. *Militarism in a Global Age: Naval Ambitions in Germany and the United States before World War One*. Ithaca, NY: Cornell University Press, 2012.
- Braisted, William Reynolds. *The United States Navy in the Pacific, 1897-1909*. Austin, TX: University of Texas Press, 1958.
- _____. *The United States Navy in the Pacific, 1909-1922*. Austin, TX: University of Texas Press, 1971.
- Bradford, James C., ed. *Admirals of the New Steel Navy: Makers of the American Naval Tradition, 1880-1930*. Annapolis, MD: Naval Institute Press, 1990.
- Breyer, Siegfried. *Battleships and Battle Cruisers, 1905-1970*, translated by Alfred Kurti. Garden City, NY: Doubleday and Company, 1973.
- Brooks, John. *Dreadnought Gunnery and the Battle of Jutland: The Question of Fire Control*. London: Routledge, 2005.
- Buckley, Thomas H. *The United States and the Washington Conference, 1921-1922*. Knoxville: University of Tennessee Press, 1970.
- Campbell, N.J.M. *Jutland: An Analysis of the Fighting*. Annapolis: Naval Institute Press, 1986.

- Chapman, Bert. *Military Doctrine: A Reference Handbook*. Santa Barbara, CA: ABC-CLIO, 2009.
- Chisholm, Donald. *Waiting for Dead Men's Shoes: Origins and Development of the U.S. Navy's Officer Personnel System, 1793-1941*. Stanford, CA: Stanford University Press, 2001.
- Churchill, Winston. *The World Crisis*. London: T. Butterworth, 1923-31. Five Volumes.
- Clinard, Outten Jones. *Japan's Influence on American Naval Power, 1897-1917*. Berkeley and Los Angeles: University of California Press, 1947.
- Coletta, Paolo E. *Admiral Bradley A. Fiske and the American Navy*. Lawrence: The Regents Press of Kansas, 1979.
- Cooling, Benjamin Franklin. *Gray Steel and Blue Water Navy: The Formative Years of America's Military Industrial Complex, 1881-1917*. Hamden CT: Archon Books, 1979.
- Corbett, Julian and Newbolt, Henry. *Naval Operations* London: Longmans, Green & Co., 1920-31. Five Volumes.
- Costello, Daniel J. "Planning for War: A History of the General Board of the Navy, 1900-1914." Ph.D. dissertation, Tufts, 1968.
- Crowl, Philip A. "Alfred Thayer Mahan: The Naval Historian." In *Makers of Modern Strategy : From Machiavelli to the Modern Age*, edited by Peter Paret. Princeton: Princeton University Press, 1986.
- Crozier, Michel. *The Bureaucratic Phenomenon*. Chicago: University of Chicago Press, 1964.
- Epstein, Katherine. *Torpedo: Inventing the Military-Industrial Complex in the United States and Great Britain*. Cambridge: Harvard University Press, 2014.
- Evans, David C. and Peattie, Mark R. *Kaigun: Strategy, Tactics, and Technology in the Imperial Japanese Navy, 1887-1941*, Annapolis: Naval Institute Press, 1997.
- Fairbanks, Charles H. "The Origins of the Dreadnought Revolution: A Historiographical Essay." *International History Review* 13, No. 2 (May 1991).
- Farr, Martin. *Reginald McKenna: Financier Among Statesmen, 1863-1916*. New York: Routledge, 2008.
- Felker, Craig C. *Testing American Sea Power: U.S. Navy Strategic Exercises, 1923-1940*, College Station, TX: Texas A&M University Press, 2007.

- Ferris, John. "Treasury Control, the Ten Year Rule and British Service Policies, 1919-1924." *Historical Journal* 30, No. 4 (December 1987).
- _____. *Men, Money, and Diplomacy: The Evolution of British Strategic Policy, 1919-26*. Ithaca, NY: Cornell University Press, 1989.
- Finkel, Meir. *On Flexibility: Recovery from Technological and Doctrinal Surprise on the Battlefield*. Stanford, CA: Stanford Security Studies, 2011.
- Friedberg, Aaron. *The Weary Titan: Britain and the Experience of Relative Decline, 1895-1905*. Princeton: Princeton University Press, 1988.
- Friedman, Norman. *U.S. Aircraft Carriers: An Illustrated Design History*. Annapolis: Naval Institute Press, 1983.
- _____. *U.S. Cruisers: An Illustrated Design History*. Annapolis: Naval Institute Press, 1984.
- _____. *U.S. Battleships: An Illustrated Design History*. London: Arms and Armour, 1986.
- _____. *Fighting the Great War at Sea: Strategy, Tactics, and Technology*. Annapolis: Naval Institute Press, 2014.
- Garcia y Robertson, Rodrigo. "Failure of the Heavy Gun at Sea, 1898-1922." *Technology and Culture* 28, No. 3 (July 1987).
- Gat, Azar. *A History of Military Thought*. Oxford: Oxford University Press, 2001.
- Gill, C.C. *Naval Power in the War*. New York: Doran, 1919.
- Goldrick, James. *The King's Ships were at Sea*. Annapolis: Naval Institute Press, 1984.
- _____. "The Founders." In *Dreadnought to Daring: 100 Years of Comment, Controversy and Debate in the Naval Review*. Hore, Peter, ed. Barnsley: Seaforth, 2012.
- _____. and Hattendorf, John B., eds. *Mahan is not Enough: The Proceedings of a Conference on the Works of Sir Julian Corbett and Admiral Sir Herbert Richmond*. Newport, RI: Naval War College Press, 1993.
- Gordon, Andrew. *The Rules of the Game: Jutland and British Naval Command*. London: John Murray, 1996.
- Gordon, Donald C. "The Admiralty and Dominion Navies, 1901-1914." *Journal of Modern History* 33, No. 4 (December 1961).
- Gowen, Robert Joseph. "British Legerdemain at the 1911 Imperial Conference: The Dominions, Defense and the Renewal of the Anglo-Japanese Alliance." *Journal of Modern History* 52, No. 3 (September 1980).

- Gray, Ramdal, ed. *Conway's All the World's Fighting Ships 1906-1921*. London: Conway, 1985.
- Grimes, Shawn. *Strategy and War Planning in the British Navy, 1887-1918*. Woodbridge, UK: Boydell & Brewer, 2012.
- Habeck, Mary. *Storm of Steel: The Development of Armor Doctrine in Germany and the Soviet Union, 1919-39*. Ithaca, NY: Cornell University Press, 2003.
- Hackemer, Kurt. *The U.S. Navy and the Origins of the Military-Industrial Complex, 1847-1883*. Annapolis, MD: Naval Institute Press, 2001.
- Hagan, Kenneth J, ed. *In Peace and War: Interpretations of American Naval History, 1775-1978*. Westport, CT: Greenwood Press, 1978.
- Spector, Ronald, "The Triumph of Professional Ideology: The U.S. Navy in the 1890s."
- Trask, David. "The American Navy in a World at War, 1914-1919."
- _____. *This People's Navy: The Making of American Sea Power*. New York: Macmillan, 1991.
- _____. and Michael T. McMaster, eds. *In Peace and War: Interpretations of American Naval History. 30th Anniversary Edition*. Westport: CT: Praegar, 2008.
- Halpern, Paul G. "The Anglo-French-Italian Naval Convention of 1915. *The Historical Journal* 13, No. 1 (March 1970).
- _____. *The Naval War in the Mediterranean 1914-1918*. London: Allen & Unwin, 1987.
- _____. *A Naval History of World War I*. Annapolis: Naval Institute Press, 1994.
- Hamilton, C.I. *The Making of the Modern Admiralty*. Cambridge, UK: Cambridge University Press, 2011.
- Harris, Brayton. *The Age of the Battleship, 1890-1922*. New York: Franklin Watts, 1965.
- Hattendorf, John B. *Sailors and Scholars: the Centennial History of the U.S. Naval War College*. Newport, RI: Naval War College Press, 1984.
- _____. and Jordan, Robert S., eds. *Maritime Strategy and the Balance of Power: Britain and America in the Twentieth Century*. New York: St. Martin's Press, 1989.
- _____. and Benigno, John C., eds. *The Influence of History on Mahan: The Proceedings of a Conference Marking the Centenary of Alfred Thayer Mahan's The Influence of Sea Power Upon History, 1660-1783*. Newport, RI: Naval Institute Press, 1991.

_____. *Ubi Sumus?: the State of Naval and Maritime History*. Newport: Naval War College Press, 1994.

_____. ed. *Doing Naval History: Essays Towards Improvement*. Newport, RI: Naval War College Press, 1995.

Goldrick, James, "The Problems of Modern Naval History."

Sumida, Jon Tetsuro and Rosenberg, David Alan, "Machines, Men, Manufacturing, Management, and Money: The Study of Navies as Complex Organizations and the Transformation of Twentieth Century Naval History."

Herrman, David G. *The Arming of Europe and the Making of the First World War*. Princeton: Princeton University Press, 1996.

Herwig, Holger. *Politics of Frustration: The United States in German Naval Planning, 1889-1914*. Boston: Little, Brown, 1976

_____. *Luxury Fleet: The Imperial German Navy, 1888-1918*. London: Allen & Unwin, 1980.

_____. "The German Reaction to the Dreadnought Revolution. *International History Review* 13, No 2. (May 1991).

Hone, Thomas C. and Trent. *Battle Line The United States Navy, 1919-1939*. Annapolis, MD: Naval Institute Press, 2006.

Hone, Trent. "High Speed Thoroughbreds: The U.S. Navy's *Lexington* Class Battle Cruiser Designs." In *Warship 2011*. London: Conway, 2011.

Hovgaard, William. *Modern History of Warships: Comprising a Discussion of Present Standpoint and Recent War Experiences*. London: Conway, 1978. Reprint of 1920 original.

Hull, Isabel. *Absolute Destruction: Military Culture and the Practices of War in Imperial Germany*. Ithaca, NY: Cornell University Press, 2005.

Hunt, Barry D. *Sailor-Scholar: Admiral Sir Herbert Richmond, 1871-1946*. Waterloo, ON: Wilfrid Laurier University Press, 1982.

Johnson, David E. *Fast Tanks and Heavy Bombers: Innovation in the U.S. Army, 1917-1945*. Ithaca, NY: Cornell University Press, 1998.

Johnston. "Thinking about Strategic Culture." *International Security* 19, No. 4 (Spring 1995).

Jones, Archer and Keogh, Andrew J. "The Dreadnought Revolution: Another Look." *Military Affairs* 49, No. 3 (July 1985).

- Jones, Jerry W. *U.S. Battleship Operations in World War I*. Annapolis, MD: Naval Institute Press, 1998.
- Karsten, Peter. *The Naval Aristocracy: The Golden Age of Annapolis and the Emergence of Modern American Navalism*. New York: Free Press, 1972.
- Keegan, John. *The Price of Admiralty*. New York: Viking, 1989.
- Kennedy, Paul. *The Rise and Fall of British Naval Mastery*. New York: Scribner, 1976.
- _____, ed. *The War Plans of the Great Powers, 1880-1914*. London: Allen & Unwin, 1979.
- _____. *The Rise of Anglo-German Antagonism, 1860-1914*. London: Unwin, 1980.
- Kier, Elizabeth. *Imagining War: French and British Military Doctrine Between the Wars*. Princeton: Princeton University Press, 1997.
- Klachko, Mary and Trask, David. *Admiral William Shepherd Benson: First Chief of Naval Operations*. Annapolis, MD: Naval Institute Press, 1987.
- Knox, Dudley W. *The Eclipse of American Sea Power*. New York: American Army & Navy Journal, 1922.
- _____. *A History of the United States Navy*. New York: Putnam, 1948.
- Kraft, Herman F. and Norris, Walter B. *Sea Power in American History*. New York: Century, 1920.
- Kretchik, Walter E. *U.S. Army Doctrine: From the American Revolution to the War on Terror*. Lawrence: University Press of Kansas, 2011.
- Kuehn, John T. *Agents of Innovation: The General Board and the Design of the Fleet that Defeated the Japanese Navy*. Annapolis: Naval Institute Press, 2008.
- Lambert, Andrew. *The Foundations of Naval History: John Knox Laughton, the Royal Navy, and the Historical Profession*. London: Chatham, 1998.
- _____. "History as Process and Record: The Royal Navy and Officer Education." In *Military Education Past, Present, and Future*, edited by Keith Neilson and Gregory Kennedy. Westport, CT; Praegar, 2002.
- _____. "The Naval War Course, *Some Principles of Naval Strategy*, and the Origins of 'The British war in Warfare.'" In *The British War in Warfare: Power and the International System, 1856-1956*, edited by Keith Neilson and Greg Kennedy. Farnham, UK: Ashgate, 2010.
- Lambert, Nicholas A. "British Naval Policy, 1913-1914: Financial Limitation and Strategic Revolution." *Journal of Modern History* 67, No 3 (September 1995).

- _____. “Admiral Sir John Fisher and the Concept of Flotilla Defence,” *Journal of Military History* 59, No. 4 (October 1995).
- _____. “‘Our Bloods Ships’ or ‘Our Bloody System’? Jutland and the Loss of the Battlecruisers, 1916. *Journal of Military History* 62, No. 1 (January 1998).
- _____. *Sir John Fisher’s Naval Revolution*. Columbia: University of South Carolina Press, 1999.
- _____. “Strategic Command and Control for Maneuver Warfare.” *Journal of Military History* 69, No. 2 (April 2005).
- _____. “On Standards: A Reply to Christopher Bell.” *War in History* 19, No. 2.
- _____. *Planning Armageddon: British Economic Warfare and the First World War*. Cambridge: Harvard University Press, 2012.
- _____. “False Prophet? The Maritime Theory of Julian Corbett and Professional Military Education. *Journal Of Military History*, July 2013.
- Lengerer, Hans. “The Battlecruisers of the *Kongô* Class.” *Warship 2012*. London: Conway, 2012.
- Lisio, Donald J. *British Naval Supremacy and Anglo-American Antagonisms, 1914-1930*. Cambridge: Cambridge University Press, 2014.
- Livezy, William. *Mahan on Sea Power*. Norman, OK; University of Oklahoma Press, 1947.
- Love Jr., Robert William, ed. *The Chiefs of Naval Operations*. Annapolis: Naval Institute Press.
- Douglas, Lawrence H. “Robert Edward Coontz.”
- Trask, David F. “William Shepherd Benson.”
- Lovell, John P. “The Professional Socialization of the West Point Cadet.” In *The New Military: Changing Patterns of Organization*, edited by Morris Janowitz. New York: Russell Sage Foundation, 1964.
- Lynn, John A. *Battle: A History of Combat and Culture*. Boulder, CO: Westview, 2003.
- Mackay, Ruddock F. *Fisher of Kilverstone*. Oxford: Clarendon, 1973.
- Marder, Arthur. *The Anatomy of British Sea Power: A History of British Naval Policy in the Pre-Dreadnought Era, 1880-1905*. New York: Octagon, 1976. Reprint of 1940 original.
- _____. *From the Dreadnought to Scapa Flow: The Royal Navy in the Fisher Era, 1904-1919*. Oxford: Oxford University Press, 1961-78. Five Volumes.

- Marolda, Edward J. ed. *FDR and the U.S. Navy*. New York: St. Martin's Press, 1998.
- Marriott, Leo. *Treaty Cruisers: The World's First International Warship Building Competition*. London: Pen & Sword Maritime, 2005.
- Martel, Gordon. "The Meaning of Power: Rethinking the Decline and Fall of Great Britain." *International History Review* 13, No. 4 (November 1991).
- Marten, Kimberly Zisk. *Engaging the Enemy: Organization Theory and Soviet Military Innovation, 1955-1991*. Princeton: Princeton University Press, 1993.
- Massie, Robert K. *Dreadnought: Britain, Germany, and the Coming of the Great War*. New York: Random House, 1991.
- _____. *Castles of Steel: Britain, Germany, and the Winning of the Great War at Sea*. New York: Ballantine, 2003.
- McBride, William. "Strategic Determinism in Technology Selection: The Electric Battleship and U.S. Naval-Industrial Relations." *Technology and Culture* 33, No. 2 (April 1992).
- _____. *Technological Change and the United States Navy, 1865-1945*. Baltimore: Johns Hopkins University Press, 2000.
- McLay, "Swimming in the 'Fishpond' or Solidarity with the 'Beresfordian Syndicate:' An Analysis of the Inquiry by the Subcommittee of Imperial Defence into Naval Policy, 1909." *International Journal of Naval History* 12, No. 1 (January 2015)
- Melhorn, Charles. *Two-Block Fox*. Annapolis: Naval Institute Press, 1974.
- Miller, Edward S. *War Plan Orange: The U.S. Strategy to Defeat Japan, 1897-1945*. Annapolis: Naval Institute Press, 1991.
- Mitchell, Donald W. *History of the Modern American Navy From 1883 Through Pearl Harbor*. New York: Knopf, 1946.
- Morris, Jan. *Fisher's Face: Or, Getting to Know the Admiral*. New York: Random House, 1995.
- Morison, Elting E. *Admiral Sims and the Modern American Navy*. Boston: Houghton Mifflin, 1942.
- Moy, Timothy. *War Machines: Transforming Technologies in the U.S. Military, 1920-1940*. College Station: Texas A&M University Press, 2001.
- Murfett, Malcom H. ed. *The First Sea Lords: From Fisher to Mountbatten*. Westport, CT: Praegar, 1995.
- Goldrick, James. "Admiral Sir Rosslyn Wemyss."

- Lambert, Nicholas. "Admiral Sir Arthur Kynvett-Wilson."
- Lambert, Nicholas. "Admiral Sir Francis Bridgeman-Bridgeman."
- Murfett, Malcom. "Admiral Sir Henry Bradwardine Jackson."
- Musicant, Ivan. *U.S. Armored Cruisers: A Design and Operational History*. Annapolis: Naval Institute Press, 1985.
- Neilson, Keith. "'Greatly Exaggerated:' The Myth of the Decline of Great Britain before 1914. *International History Review* 13, No. 4 (November 1991).
- _____. and Errington, Elizabeth Jane eds. *Navies and Global Defense: Theories and Strategy*. Westport, CT: Praegar, 1995.
- Hagan, Kenneth J. "The Apotheosis of Mahan: American Naval Strategy, 1889-1922.
- Lambert, Andrew. "The Royal Navy, 1856-1914."
- Till, Geoffrey. "Sir Julian Corbett and the British Way in Naval Warfare."
- Nofi, Albert A. *To Train the Fleet for War: The U.S. Navy Fleet Problems, 1923-1940*. Newport: Naval War College Press, 2010.
- Neustadt, Richard and May, Ernest. *Thinking in Time: The Uses of History for Decision Makers*. New York: Macmillan, 1986.
- O'Brien, Philips Payson. *British and American Naval Power: Politics and Policy, 1900-1936*. Westport, CT: Praegar, 1998.
- O'Connell, Robert. *Sacred Vessels: The Cult of the Battleship and the Rise of the U.S. Navy*. Boulder, CO: Westview Press, 1991.
- Padfield, Peter. *Aim Straight: A Biography of Admiral Sir Percy Scott*. London: Hodder and Stoughton Limited, 1966.
- _____. *The Great Naval Race: The Anglo-German Naval Rivalry, 1900-1914*. New York: McKay, 1974.
- Parkinson, Roger. *The Late Victorian Navy*. Woodbridge, UK: Boydell, 2008.
- Patterson, A. Temple. *Jellicoe: A Biography*. London: Macmillan, 1969.
- Penn, Geoffrey. *Infighting Admirals*. London: Leo Cooper, 2000.
- Posen, Barry R. *The Sources of Military Doctrine: France, Britain, and Germany Between the First World Wars*. Ithaca, NY: Cornell University Press, 1984.

- Potter, E.B. *Sea Power: A Naval History*. Annapolis: Naval Institute Press, 1981. Second Edition.
- Richmond, Herbert. *British Strategy: Military and Economic*. Cambridge: Cambridge University Press, 1941.
- Roberts, John. *Battlecruisers*. Annapolis: Naval Institute Press, 1997.
- Ropp, Theodore. *The Development of a Modern Navy: French Naval Policy, 1871-1904*. Annapolis, Naval Institute Press, 1987.
- Roskill, Stephen. *Naval Policy between the Wars*. New York: Walker, 1968-76. Two Volumes.
- _____. *Hankey: Man of Secrets*. London: Collins, 197-74. Three Volumes.
- _____. *Churchill and the Admirals*. London: Collins, 1977.
- _____. *Admiral of the Fleet Earl Beatty: The Last Naval Hero: An Intimate Biography*. London: Collins, 1980.
- Sandler, Stanley. *The Emergence of the Modern Capital Ship*. Newark: University of Delaware Press, 1978.
- Schulman, Mark Russell. *Navalism and the Emergence of American Sea Power, 1882-1893*. New York: The Free Press, 1972.
- Schurman, Donald M. *The Education of a Navy: The Development of British Naval Strategic Thought, 1867-1914*. Chicago: University of Chicago Press, 1965.
- _____. *Julian S. Corbett: Historian of British Maritime Policy from Drake to Jellicoe*. London: Royal Historical Society, 1981.
- Snyder, Jack. *The Ideology of the Offensive: Military Decision Making and the Disasters of 1914*. Ithaca, NY: Cornell University Press, 1984.
- Spector, Ronald. *Admiral of the New Empire: The Life and Career of George Dewey*. Baton Rouge: Louisiana State University Press, 1974.
- _____. *Professors of War: The Naval War College and the Development of the Naval Profession*. Newport, RI: Naval War College Press, 1977.
- _____. *At War at Sea: Sailors and Naval Warfare in the Twentieth Century*. New York: Viking, 2001.
- Sprout, Harold and Sprout, Margaret. *Toward a New Order of Sea Power: American Naval Policy and the World Scene, 1918-1922*. Princeton: Princeton University Press, 1940.

- _____. *The Rise of American Naval Power, 1776-1918*. Princeton: Princeton University Press, 1944.
- Still Jr., William N. *Crisis at Sea: The United States Navy in European Waters in World War I*. Gainesville, FL: University Press of Florida, 2006.
- Stimson, Henry L. and Bundy, McGeorge. *On Active Service in Peace and War*. New York: Harper, 1948.
- Strachan, Hew. *The First World War*. New York: Oxford University Press, 2001.
- Sumida, Jon Tetsuro. *In Defence of Naval Supremacy*. Boston; Unwin Hyman, 1989.
- _____. "British Naval Administration and Policy in the Age of Fisher." *Journal of Military History* 54, No. 1 (January 1990).
- _____. "Sir John Fisher and the *Dreadnought*; The Sources of Naval Mythology." *Journal of Military History* 59, No. 4 (October 1995).
- _____. "Fisher's Naval Revolution." *Naval History* 10, No. 4 (July/August 1996).
- _____. *Inventing Grand Strategy and Teaching Command: The Classic Works of Alfred Thayer Mahan Reconsidered*. Washington, D.C. and Baltimore: The Woodrow Wilson Center Press and the Johns Hopkins University Press, 1997.
- _____. "A Matter of Timing: The Royal Navy and the Tactics of Decisive Battle, 1912-1916." *Journal of Military History* 67, No. 1 (January 2003).
- _____. "Gunnery, Procurement, and Strategy in the "Dreadnought" Era." *Journal of Military History* 69, No. 4 (October 2005).
- Taylor, A.J.P. *The Struggle for Mastery in Europe, 1848-1918*. London: Oxford University Press, 1971.
- Tertius de Kay, James. *Roosevelt's Navy: The Education of a Warrior President, 1882-1920*. New York: Pegasus, 2012.
- Till, Geoffrey, ed. *The Development of British Naval Thinking*. London: Routledge, 2006.
- Gordon, Andrew. "1914-1918: The Proof of the Pudding."
- Lambert, Andrew. "The Development of Education in the Royal Navy: 1854-1914."
- Trask, David. *Captains & Cabinets: Anglo-American Naval Relations, 1917-1918*. Columbia: University of Missouri Press, 1972.
- Vinson, John Chalmers. *The Parchment Peace*. Athens: Georgia University Press.
- Vlahos, Michael. *The Blue Sword: The Naval War College and the American Mission, 1919-1941*. Newport: Naval War College Press, 1980.
- Weigley, Russell. *The American Way of War*. New York: Macmillan, 1973.

- West, Richard. *Admirals of American Empire; the Combined Story of George Dewey, Alfred Thayer Mahan, Winfield Scott Schley and William Thomas Sampson*. Indianapolis: Bobbs-Merrill, 1948.
- Wheeler, Gerald. *Prelude to Pearl Harbor*. Columbia: University of Missouri Press, 1963.
- White, Donald G. "The Misapplication of a Weapons System: The Battle Cruiser as Warship Type." *Naval War College Review*, January 1970.
- Williams, William J. "Josephus Daniels and the U.S. Navy's Shipbuilding Program During World War I." *Journal of Military History* 60, No. 1 (January 1996).
- Winton, John. *Jellicoe*. London: Joseph, 1981.
- Yerxa, Donald A. *Admirals and Empire: The United States Navy and the Caribbean, 1898-1945*. Columbia: University of South Carolina Press, 1991.