THE UNITED STATES NAVY AND THE DREADNOUGHT REVOLUTION: AN HISTORICAL CRITIQUE OF THE CAPITAL SHIP THEORY OF SEAPOWER

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PREFACE

In the winter of 1889-90, Secretary of the Navy Benjamin Franklin Tracy altered the basic naval strategy of the United States, a change unique in American history. Since the Revolutionary War the Navy had been devoted to protecting the coasts and raiding enemy commerce, although the emphasis of this policy had varied. In the 1880s a group of young naval officers, who advocated a fleet in the style of the European powers, advanced to command ranks. Two of their leaders, Admiral Stephen B. Luce and Captain Alfred Thayer Mahan, convinced Tracy to begin the construction of a squadron of American capital ships, a course last seriously contemplated during the War of 1812.[1] Since that winter, the capital ship has evolved from battleships and armored cruisers to nuclear aircraft carriers and ballistic missile submarines, but American naval policy has remained firmly centered on the battlefleet.

The complete victory of Tracy's battleships at the Battle of Santiago apparently vindicated this new policy, but only seven years later, the Navy's unwavering adherence to the capital ship strategy caused it to become increasingly impotent as a consideration in international strategy. In October 1905 Great Britain began the construction of HMS Dreadnought, a battleship of unprecedented power and expense, which substantially raised the prerequisites of a

warship of capital ship status. The United States Navy had fumbled an opportunity to gain a similar technological breakthrough and then opted to build dreadnoughts only after prolonged debate. In a critical error, the General Board, the closest equivalent to a naval general staff, decided merely to upgrade the Navy's strategic goals and policies to the new standard.[2]

Continuing advances in naval technology and increasing international competition would raise this criterion every year until 1922. The spiraling expenses of building and maintaining a fleet of these leviathans forced every major power to sacrifice other naval necessities, but none more so than the United States. In April 1917, the Navy could muster only a dozen dreadnoughts and twenty-seven destroyers ready for service.[3] This was a force capable of daunting Japan, however, if either of the European alliances won a decisive victory it would be unable to defend the national interests. The battlefleet was quite extravagant for its usual task of maintaining the informal empire in the Caribbean, and it had proved ineffective at asserting other foreign policy objectives after the return of the Great White Fleet.

Previous commentators only superficially have examined the appropriateness of Mahan's Capital Ship Strategy to the strategic position of the United States in the late nineteenth and early twentieth century. Most naval historians have viewed the period as a necessary phase in the progressive evolution of American seapower to global command of

the oceans.[4] Naval strategists when turning to history have concentrated on the baleful effects on Imperial Germany of her naval leader's excessive devotion to and limited understanding of Mahan's principles.[5] Alfred Vagts has proposed the construction of a great monument to Mahan with the inscription "He taught the Germans the wrong lessons."[6] David Trask and Herwig Holger have noted in passing that American naval policy essentially followed the same Risk Strategy as the High Seas Fleet.[7] Clark G. Reynolds conspicuously did not include a capital ship strategy as a viable option for an ambitious naval power of middle rank.[8] The one clear lesson in Mahan's historical writings was that England paid any price for the destruction of her naval rivals. The United States avoided this fate because of the fortuitously simultaneous emergence of German naval power, and the fortuitous pyrrhic victory of Great Britain in the First World War.

I contend that the United States' pursuit of a Capital Ship was flawed from the outset, despite its auspicious beginnings, and that it became potentially disastrous through the Navy's inability to mount a creditable response to the Dreadnought Revolution. As noted above, other writers have alluded to this conclusion, but this research in its support is original.

A Law of History may be ventured; masters candidates accumulate many debts. I should like to thank Dr. Joseph Stout, Jr. for venturing far from his borderlands to head my committee, and for toleration of my early acquisition of

the writer's habit of not beating any deadlines. Dr. Alexander Ospovat has broadened my horizons in the History of Science and Technology, and Dr. H. James Henderson has stimulated my interest in quantification and the philosophy of history. Dr. Richard Rohrs was a great encouragement when I was tentatively returning to graduate studies. Dr. Ronald Petrin has also taught me a great deal about teaching, and has had the dubious honor of reading many of my early drafts. Another Law is that the greatest debts are owed to one's spouse. Kim Keziah McKeage has given me unfaltering love and support while maintaining her own graduate studies. Kim deserves a brevet commission in BuCon's Salvage Division. She has suffered more than anyone, and now can even describe the operations of the "splash" benefits of an all-big-gun, single caliber battleship.

ENDNOTES

1. Whether Luce or Mahan had more influence is disputed. (See Benjamin F. Cooling, Benjamin Frankin Tracy Father of the Modern Navy (Hampden, CT: Archon Books, 1973), pp. 74-75; and Walter R. Herrick, The American Naval Revolution (Baton Rouge: Louisiana State University Press, 1966), pp. 43, 54.

2. See Chapter #1 Note #21.

3. Tracy B. Kittredge, Naval Lessons of the Great War. (Garden City, NJ: Doubleday, 1921) pp. 164-166, 191.

4. See Appendix A, "Historiographic Essay."

5. Herbert Rosinski, "Tirpitz and German Naval Policy." in B. Mitchel Simpson ed. The Development of Naval Thought: Essays by Herbert Rosinski. (Newport, RI: Naval War College Press, 1977) is particularly succunct.

6. Alfred Vagts, Landing Operations Strategy, Psychology, Tactics, and Politics, From Antiquity to 1945. (Harrisburg, PA: Military Services Publishing Co., 1946), p. 2.

7. Holger H. Herwig and David J. Trask, "Naval Operational Plans Between Germany and the United States, 1898-1913 A Study of Strategic Planning in the Age of Imperialism." in Paul M. Kennedy, ed. The War Plans of The Great Powers, 1880-1914. (London: George Allen and Unwin, 1979), pp. 41, 63.

8. Clark G. Reynolds, Command of the Seas The History and Strategy of Maritime Empires. (New York: William Morrow & Co., 1974), pp. 10-21.

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CHAPTER I

MAHAN'S THEORY OF SEA POWER AND THE STRATEGIC INTERESTS OF THE UNITED STATES IN THE EARLY TWENTIETH CENTURY

In 1884 Captain Alfred Thayer Mahan began teaching naval history and strategy at the newly-established Naval War College at Newport, Rhode Island. Admiral Stephen B. Luce had selected Mahan to fill the most critical billet at his pet project based on his hopes that Mahan could make naval warfare into a science. Mahan had had a less than distinguished career to that point, but his father, Dennis Hart Mahan, had introduced the strategic and tactical system of the French General Henri Jomini to the generation of West Pointers who would oversee the bloody battles of the Civil War. Alfred apparently never read his father's works, but he did name his dog 'Jomini,' and succeeded beyond Luce's greatest expectations.[1]

In his research for his new post, Mahan came to believe that naval superiority was the most critical factor in the wars of great powers, and applying Jomini to naval warfare, he derived the "Theory of Sea Power."[2] This became the de facto basis of American naval policy five years later, and since has been elevated to the realm

of gospel. The Navy, and most historians, have seen a causal relationship between the adoption of Mahan's principles and the United States' establishment of global naval hegemony by 1945. That may be, but the Theory of Sea Power, in its specific application--the capital ship strategy--was not universally successful and in Mahan's lifetime it became increasingly incompatible with American national interests. In the first two decades of the twentieth century this new strategy became unnecessarily perilous for the United States because of the failure of the Navy to respond adequately to the introduction of economic and technological warfare into the considerations of national strategy and naval policy brought by the Dreadnought revolution.

In the later decades of the nineteenth century the United States began to abandon the spirit of isolation exwmplified in the original version of the Monroe Doctrine and to take an active role in world affairs, a role that inevitably involved the United States Navy. This new spirit has had various explanations--a need to export surplus capital, the closing of the frontier, and even the "natural cycles" of empire--yet from the perspective of the Navy it was a relatively sudden awakening after much post-bellum neglect. Given the oceans separating the United States from the other major powers, the nascent American strength had to be expressed primarily at sea. In the United States' maritime tradition dating back to

the Revolutionary War, the Navy had patrolled an informal trading empire in peace, and in war sought to protect the nation's coasts and to disrupt enemy commerce. In 1889, the United States abandoned this customary "guerre de course" naval strategy which relied on the near invulnerability of the country's vast interior and its immense industrial potential for Mahan's assertive new one.

The reconstruction of the United States Navy began in 1879, and gained Congressional sanction in 1883 with a customary emphasis upon the defense of the nation's coasts and the destruction of enemy shipping.[3] The greatest problem was that the American merchant marine had not recovered from the depredations of Confederate commerce-raiders, and the Union's world leadership in naval technology in the 1860s had not been maintained. By the early 1880s the United States lacked the industrial potential to build modern warships, a capacity that private industry would not undertake without government guarantees of ongoing naval construction.[4] Several nominally Civil War-vintage monitors were reconstructed, and several fast cruisers built to emulate the CSS Alabama, but American naval ambitions remained those of a second-class power. The "guerre de course" strategy of denying victory to a superior foe, rather than establishing one's own mastery, received a classical expression in the first programs of the "New Navy."

Mahan's strongest objection to traditional American

naval policy was that the increased pace of modern war brought by steam power made a strategy of slowly wearing down the enemy untenable, and that modern warships could not operate without safe bases, as swarms of privateers once had done. The "guerre de course" would no longer deny an enemy the use of the sea soon enough to be decisive. An opponent's fleet could not be allowed to institute an effective blockade, and launch amphibious attacks at will as the Union Fleet had done in the Civil War; it would have to be fought. The only effective means of fighting a fleet was with one's own battlefleet composed of capital ships, the primary naval combattant of any given era. Mahan also strongly believed in the inevitability of war between the powers, primarily due to their natural economic competition for survival and expasion. This later belief had a strong and negative influence on the Navy's strategic planning, but Mahan's primary lesson was that a nation must possess a battlefleet stronger than that of any rival.[5]

Secretary of the Navy Benjamin Franklin Tracy began this re-direction of the Navy under the influence of Luce's lobbying and a pre-publication copy of Mahan's The Influence of Sea Power on History, 1660-1783.[6] On assuming office, Tracy summoned the McCallum Policy Board to settle the conflict between traditionalists and modernizers in the Navy. The Policy Board came out very strongly for Sea Power, calling for a massive fleet of capital ships at a time when the United States had not completed any. Despite

the negative political reaction to the Board's ambitions, Tracy gained Congressional approval for the construction of the first three battleships and formed the "Squadron of Evolution" to experiment with fleet tactics.[7] By the end of his term, the increasing tensions with Spain and the success of Mahan's writings had led to a general acceptance of the Theory of Sea Power.[8]

Mahan's success as a popularizer rested largely on three very marketable ideas: that the United States would lose its isolation throught the construction of an Isthmian Canal, that the country's ports were vulnerable to attack with deterrance being cheaper than ransom, and that the United States' destiny was not bounded by the American continent.[9] The way to resolve all three of these problems was a powerful American fleet. Mahan's greatest impact was as an essayist, as his books likely were much more widely cited than read, for the Influence of Sea Power on History was rough going even by the standards of the time. As with most major strategists, Mahan's writings were so extensive that correct quotes can be found for any contingency. However, if the United States Navy's application of his principles showed too much devotion and too little understanding, this was not a course that Mahan attempted to correct in his popular writings, and he may be judged accordingly.

The new battlefleets implemented Mahan's strategy during the Spanish-American War with deceptively easy

success. Spain's fleets were quickly contained by blockade or swiftly destroyed, giving the United States free use of the seas for invasion and trade while indirectly defending the American coast. This textbook demonstration of Mahan's principles further popularized them with civilians and elevated them to the realm of dogma within the Navy.[10] According to the Theory of Sea Power the United States was now established as a maritime power and to remain competitive the nation would have to increase its battlefleet beyond the major increases ordered during the war.[11] This was a relatively easy program to sell to Congress as it promised quick and easy victories well away from the homeland.[12]

The next President, Theodore Roosevelt, probably had become an advocate of Sea Power even before Mahan's influence, and he possessed a more subtle understanding of the political uses of a navy.[13] Roosevelt's first international adventure came with the Venezuelan debt crisis of 1902-1903, when he sharply protested the German blockade. Roosevelt used the incident to persuade Congress to continue the American naval build-up which was important in convincing both England and Geramny that the ambitions of the United States could be dealt with only after a resolution of the European situation.[14] This was all lost on the Navy which expected an immanent war with Germany; as the rising economic powers they would have to fight to determine who would challenge England.[15]

The Navy was dismayed to discover that Roosevelt intended to cut back on this rapid expansion once the diplomatic mini-crisis had ended. The Prsident had determined that the United States had the industrial capacity to begin the construction of twelve battleships in a year and to complete them in two, if it were absolutely essential.[16] In a six-year burst of effort the United States Navy was about to become the second most powerful in the world, and the diplomatic situation was such that none of the great powers could concentrate all of their resources against the United States for fear of their greedy neighbors. The United States Navy had achieved the "risk fleet" that Admiral Alfred von Tirpitz was attempting to build, without success.[17]

In 1903 the Navy's General Board revised the recommendations of the Policy Board of 1889 upwards from thirty-five to forty-eight capital ships (the long standing rumor that this number was desirable because it provided for one ship per state has never been silenced).[18] This unofficial program became the basic outline of American naval policy until the United States' entry into the First World War.[19] The Board desired a battlefleet second only to that of Great Britain to be kept in the Caribbean for use against Germany or later Japan, whom the Board deemed to be the only probable future foes.[20] This strategy had already begun to unravel.

In 1900 foreign naval architects had realized that

the most efficient means of arming a warship was with guns of a single caliber, and gunnery experts saw that this would improve their art.[21] Two American officers, William S. Sims and Homer C. Poundstone, were amoung the first to realize the implications of combining these ideas, implications that would lead to the Dreadnought.[22] Sims decided that this would be an excellent issue around which to develop his life-long quest for organizational reform in the Navy.[23] The Navy was then divided into seven essentially independent Bureaus with ill-defined and often overlapping spheres of responsibilities. In 1904 the United States Navy had the technical capacity and the military theory to build its first all-big-gun battleships of the Michigan class, ships that actually were not completed until 1910.[24] These ships were inferior to the English Dreadnought, for the United States was behind in steam turbine technology, but they would have had no less a revolutionary impact on foreign navies.[25] This delay resulted from internecine quarrels which Sims had stirred, and from Mahan's personal opposition to the new type, largely based on theorectical grounds. Sims and Mahan would resolve the issue through a debate in the semi-official Proceedings of the United States Naval Institute.[26] Sims won because he argued Mahanian theory better than the "Prophet" himself.

Mahan had based his research on eighteenth century naval warfare when ships-of-the-line were the capital

ships and when there had been little technological innovation for over a century beforehand, and only an incremental improvemnt for the next six decades.[27] He therefore did not consider technology to be an especially important aspect of naval warfare, particularly as the perennially defeated French usually had better ships than the British. By the twentieth century society itself had become technological and technical superiority was now one of the few attractive options for a small ambitious naval power.[28] After the Michigans the United States sought to make its designs stronger than any contemporaries. This margin was very small, though, and the longer building time for American battleships, four years versus two to three for England and Germany, made this design policy quite ineffective.[29] The United States was not pursuing this strategic option, but Japan had begun to do so; this would become only too apparent in the year after Pearl Harbor. The leaders of the Navy remembered that the Confederate Navy's search for technological superiority had been a failure, but while these efforts had been gallant, they also had been singularly inept.[30] Moreover, Mahan rejected the dreadnought as Great Britain had rejected the great 'first-rate' ship-of-the-line in the Nelson Era--too much of the nation's military resources committed to one fragile hull.[31] He also sensed how disruptive and destabilizing a technological and economic arms race would be for his comfortable Victorian civiliz-

ation, but such arguments could not prevail.[32]

In 1905 Great Britain laid down HMS Dreadnought, a battleship of unprecidented size and power. In the mid-1880s the world's navies had largely absorbed the Industrial Revolution's innovations: steam power, armor, and shell-firing rifled cannons, and the prerequisates for capital ship status were increasing slowly.[33] Twenty years later, the United States Navy was a leader in the devolopment of new methods of propulsion and gunnery, but Admiral Jackie Fisher's daring decision to use untested technologies in the Dreadnought caught the Navy by surprize.[34] After unnecessarily prolonged debate, the navy decide to build dreadnoughts too, and made a critical error in its decision simply to upgrade its strategic policies and goals to this new standard.[35]

Continued advances in naval technology and increased international tensions raised the criterion for capital ship status annually until 1922. The spiralling expenses of building and maintaining a battlefleet of these burgeoning leviathans forced every major power to sacrifice other naval necessities, but none more so than the United States: in April 1917 the Navy could muster only twelve battleships with very inadequate numbers of escort and support vessels ready for service.[36] This was a force inadequate for defense against the worst contingencies, hamhanded in the task of maintaining the American empire in the Caribbean, and

disregarded by the United States' friends and foes as a factor in diplomacy. There were other factors involved in this strategic impotence of the Navy that was nominally the the third most powerful in the world, but the primary determinant was the Navy's unwavering and uncritical commitment to the capital ship strategy.

Mahan had maintained that the battlefleet needed to be balanced, that is to have adequate subordinate vessels for scouting abd support duties, but he did not specify whether battleships or auxiliaries should be sacrificed first.[37] The Navy had a strong lobby within Congress and was able to increase its appropriations at a rate quite comparable to those of the other powers as the Dreadnought escalated the international naval arms race into a frenzy.[38] Still the increased costs of building and maintaining a dreadnought battlefleet was busting the budget.[39] The Navy determined that auxiliaries could be obtained much faster than capital ships in a war so that all else could be done without to keep dreadnought construction at a two-per-year pace.[40] This decision was logically sound, but its implementation was atrocious. It would appear that once a war seemed immanent that a crash program should be begun to balance the fleet, but this did not occur in 1914 or 1915.

In 1916 and 1917 when the Navy had a carte blanche, it desired a dozen new capital ships, and would only reluctantly consent to suspend their construction to build

destroyers to meet the crisis of the U-Boat war.[41] The Navy had built only three cruisers from 1903 to the end of World War I, and submarines, in which the United States once had a large technological lead, were built only at Congressional insistence.[42] This budgetary problem extended beyond materiel for the Navy did not have enough men to man the ships of the Spanish-American War expansion. The Navy thus was forced to keep virtually all of its second line ships tied up without adequate reserve crews. Only the battlefleet was preserved in accordance with Mahanian standards of preparedness.[43]

The Navy was also left with very limited funds for research and development, though there was also a certain lack of interest as it knew it already possessed the one strategic superweapon.[44] The United States had a substantial lead in aviation and submarine technology but this received very little encouragement from the Navy. This was particularly important for the Navy in the field of gunnery. Bradley Fiske had very advanced ideas before the Spanish-American War, but he ran into a wall of bureaucratic obstruction, and research in this field virtually ceased.[45] At the same time the British Navy was beginning to work on a primitive fire-control computer and the Germans improved the optics on existing range-finders.[46] When an American squadron arrived to reinforce the Grand Fleet in late 1917, the inferiority of the Navy's gunnery was qui:te embararrassing.[47] Sims had fought the Navy's

inertia when his proposals for improved target practice fell on deaf ears. He would risk his career to go directly to President Roosevelt, but with his success the United States' limited ability to produce the great cannons that wore out after a hundred rounds became a problem.[48] There was, of course, no money to increase this industrial capacity.

The American dreadnought battlefleet was basically adequate to fulfill the Navy's self-assigned tasks, but these missions reflected a superficial assessment of the interests of the United States. The Navy sought to overawe Japan and to make potential German adventures excessively risky (the General Board feared that the High Seas Fleet was secretly aimed at the United States).[49] The acquisition of the Philippines had created a dilemma for the United States and Japan, for neither could be secure without imperilling the other.[50] American warships also had to be able to cruise to the Far East which forced American designers to reduce armor, armament, and speed. The first generation of American battleships had sacrificed range for fighting power; a strategy whose effectiveness the Germans demonstrated at Jutland. Because of this design policy the High Seas Fleet was virtually incapable of overseas deployment. The Navy did not consider such basic factors in its war plans which made the battlefleet inefficient even within its own Mahanian realm.

The limitations oof the Navy's strategic vision led

to the potentially most dire consequences of its dreadnought policy. The General Board's and Naval War College's primary function as strategists was to deal with potentialities so it is not improper to subject them to counterfactual criticism. The General Board had studies coalition warfare, but after the Russo-Japanese War decided that the United States Navy would not face a hostile coalition.[51] The Board ignored the possibility of a two-ocean war against Japan and a European Power because of Mahan's definition of the economic causes of war.[52] The growing confrontation of the European Alliances made this unlikely in the short run, but England and Germany had discarded their ambitions in the Americas only because of those entanglements.[53] If either were victorious in a general European war, these interests were likely to reawaken, and virtually all military experts of the time expected a short general war with a clear winner.[54] World War I would maim all the European belligerents, a result highly favorable to American interests, but it was imprudent for the Navy to rely on this outcome. It was then in the interest of the United States to act to preserve the balance of power. Roosevelt realized this, and did intervene in the First Moroccan Crisis. The peculiar foreign policies of his successors basically preempted this option, but the Navy earned no praise by encouraging its detachment from American diplomacy.

The Navy was ready only to face its chosen foes,

heedless of Mahan's admonishment to prepare not against "the most probable of danger, but the most formidable;" but did it not have any alternatives?[55] In an era when Brazil and Chile acquired dreadnoughts, and Holland and Greece attempted to, how should the United States be blamed for doing the same? The United States needed to build warships if only to maintain technological parity and to provide public works projects.[56] The Navy succeeded in creating a "fleet-in-being," a force that could compromise a foe's freedom of action. This was the most that could be done without the chance of distracting England's ire from Germany. However, the Navy did not intend to keep the battlefleet in reserve, but to risk it for quick and decisive victory.[57] Mahan's expectation of ultra-brief modern wars was widely held at the time, but the Royal Navy's ineffective bombardment of Alexandria in 1878 should have suggested the later impotence of Sea Power alone against Santiago, Port Arthur, and the Dardenelles. Even if wiser counsel employed the battlefleet in its proper role--preventing defeat while the nation mobilized--it was not well suited to this strategy. The United States required some form of technological superiority for its fleet, and this was available in a design policy aimed at higher speeds. Battlecruisers have been disreputable since their inception, but a smaller squadron of this type of ship would have better met American needs. Such an option was not likely as Mahan particularly degraded speed

as a tactical quality, and the savings of one rather than two ships a year would not necessarily have gone to the Navy.[58] A less hypothetical alternative would have been to continue to build small battleships like the Michigans. This would have limited the Navy to a less attractive "fortress fleet" strategy of coast defense, but the fleet would have been far better prepared to execute it.

Although the United States was striving to achieve an active role in world affairs through its Dreadnought policy, it built a fleet that was quite passive in the Great Game; this was not a sound national strategy.[59] Fleet Admiral Gorshkov's criticism of Imperial Russia's battlefleet can be readily applied to that of the United States:

> Its construction continued to remain essentially based on its prestige value to the state, ignoring the need...to possess seapower. Therefore, the construction of the fleet was of a chance character not pursuing specifically defined tasks but only fitting its forces to the force of foreign fleets...[60]

At the base of the problem was Mahan's focus on the battlefleet, which readily led to the materialist deception that only weapons matter.[61] A paraphrase of T.E. Lawrence's comments to B.H. Liddell Hart regarding Clauswitz is even more apt:

> The logical system of [Mahan] is too complete. It led astray his disciples--those of them, at least, who would rather fight with their arms than with their legs...[62]

ENDOTES

1. See Robert Seager II, Alfred Thayer Mahan The Man and His Letters. iv (Annapolis: Naval Institute Press, 1977), p. 2; and W.D. Puleston, Mahan The Life and Work of Captain Alfred Thayer Mahan. (New Haven: Yale University Press, 1939), p. 85.

2. Puleston. Mahan. pp. 77-78.

3. For the existence of this empire see Stephen S. Roberts, "An Indication of Informal Empire Patterns of U.S. Navy Cruising on Overseas Station, 1869-1897," in Craig L. Symonds, et al. eds, New Aspects of Naval History. (Annapolis: Naval Institute Press, 1981); and Paul Schroder, Shaping A Maritime Empire The Commercial and Diplomatic Role of the American Navy 1829-1861. (Westport, CT: Greenwood Press, 1985).

4. Benjamin F. Cooling, Grey Steel and the Blue Water Navy The Formative Years of America's Military-Industrial Complex. (Hampden, CT: Archon Books, 1979), pp. 215-217.

5. Thomas R. Pollock, "The Historical Elements of Mahanian Doctrine." Naval War College Review 36 (1983) pp. 46-48.

6. Ronald Spector, "The Triumph of Professional Ideology: The Navy in the 1890s," in Kenneth J. Hagan, ed. In Peace and War Interpretations of American Naval History 1775-1984. (Westport, CT: Greenwood Press, 1984), pp. 182-183.

7. See Benjamin F. Cooling, Benjamin Franklin Tracy Father of the Modern American Fighting Navy. (Hampden, CT: Archon Books, 1973), pp. 74-75; and Walter R. Herrick, The American Naval Revolution. (Baton Rouge: Louisiana State University Press, 1966), pp. 43, 54.

8. Margret Sprout, "Captain Alfred Thayer Mahan-Evangelist of Sea Power," in Edward M. Earle, et al. eds. Makers of Modern Strategy Military Thought from Machiavelli to Hitler. (Princeton: Princeton University Press, 1943), p. 437.

9. Allan Wescott, ed. Mahan on Sea Power Selections from the Writings of Rear Admiral Alfred Thayer Mahan. (Boston: Little Brown, 1918), pp. 47, 153, 287.

10. Spector. "Professional Ideology." p. 184.

11. Alfred Thayer Mahan, "The Importance of Command of the Sea." Scientific American 105 (1911) p. 512.

12. Forrest Davis, The Atlantic System The Story of Anglo-American Control of the Seas. (New York: Reynal & Hitchcock, 1941), p. 113.

13. Peter Karsten, "The Nature of 'Influence': Roosevelt, Mahan, and the Concept of Sea Power." American Quarterly 23 (1971) pp. 232-234.

14. See Chapter II, note #1.

15. Alfred Vagts, "Hopes and Fears of an American-German War 1870-1915." Political Science Quarterly 55 (1940) p. 68.

16. Letter RADM Brownson to President Theodore Roosevelt 7/30/07 Roosevelt Papers, Library of Congress, Manuscript Division, Washington, DC.

17. Holger H. Herwig and David J. Trask, "Naval Operational Plans Between Germany and the United States, 1898-1913 A Study of Strategic Planning in the Age of Imperialism." in Paul M. Kennedy, ed. The War Plans of The Great Powers, 1880-1914. (London: George Allen and Unwin, 1979), p. 63.

18. Albert C. Stillson, "The Development and Maintenance of the American Naval Establishment, 1903-1908." Doctoral Dissertation, Columbia University, 1959, pp. 413-415.

19. J.A.S. Grenville, and George Young, Politics, Strategy and American Diplomacy: Studies in Foreign Policy 1875-1917. (New Haven: Yale University Press, 1966), p. 312.

20. See Louis Morton, "War Plan Orange: The Evolution of a Strategy." World Politics 11 (1959) p. 222; Holger H. Herwig, The Politics of Frustration The United States in German Naval Planning. (Boston: Little Brown, 1976), p. 93; and "Memorandum on the Preparation of General War Plans, 11/23/09," General Board of the Navy 1909, NRG 12, GB File 425, Naval Archives, Washington, DC.

21. Predreadnought battleships carried main, intermediate, secondary and anti-torpedo boat batteries which complicated ammunition supply and interfered with long range fire-control because it was difficult to distinguish the splashes of misses of the various guns. For this date see Richard Hough, Admiral of the Fleet The Life of John Fisher. (New York: Macmillan, 1969), p. 236; Donald G. MacIntyre, The Thunder of the Guns: A Century of Battleships. (New York: Norton, 1960), p. 155; William E. McMahon, Dreadnought Battleships and Battlecruisers. (Washington, DC: United Press of America, 1970), p. 11; and Letter from

Henry Williams to Editor in "Discussion, Comments, Notes," Proceedings of the United States Naval Institute ((hence-forth Proceedings)) 74 (1948) p. 1293.

22. Elting E. Morison, Admiral Sims and the Modern American Navy. (New York: Russell, 1942), p. 180.

23. Morrison. Sims. p. 142.

24. The Michigans were basically a redesign of the previous class of American predreadnoughts. (See Norman Friedman, U.S. Battleships An Illustrated Design History. (Annapolis: Naval Institute Press, 1985), pp. 55-62; Archibald S. Hurd, "The American Fleet from an English Point of View." Cassiers Magazine 33 (1907) p. 258; and U.S., Congress, Navy Yearbook 1906. (Washington, DC: Government Printing Office, 1907), p. 498.

25. Oscar Parkes, British Battleships 'Warrior'1860 to 'Vanguard'1950: A History of Design, Construction and Armament. (London: Smith Publishers, 1958), pp.467-468.

26. See Alfred Thayer Mahan, "Reflections: Historic and Other Suggested by the Battle of the Sea of Japan." Proceedings 32 (1906) pp. 447-472; and William S. Sims, "The Inherent Tactical Qualities of All-Big-Gun, One-Caliber Battleships of High Speed, Large Displacement, and Gunpower." Proceedings 32 (1906) pp. 1337-1366.

27. Alfred T. Mahan, The Influence of Sea Power on History 1660-1783. (Boston: Little Brown, 1890), pp. 29-89.

28. Clark G. Reynolds, Command of the Sea The History and Strategy of Maritime Empires. (New York: William Morrow & Co., 1974), pp. 14-15.

29. Gordon C. O'Gara, Theodore Roosevelt and the Rise of the Modern Navy. (Princeton: Princeton University Press, 1943), p. 46.

30. See Warren F. Spencer, The Confederate Navy in Europe. (n.p.: University of Alabama Press, 1983); and William N. Still, Jr., Iron Afloat The Story of the Confederate Armorclads. (n.p.: Vanderbilt University Press, 1977).

31. Mahan, "Reflections," p. 469-471.

32. Seager.Mahan and His Letters. iv p. 514.

33. The Dreadnought battleship has been widely held to be only an evolutionary increase in Capital Ship development. For example, see Bernard Brodie, Sea Power in the Machine Age. (Princeton: Princeton University Press, 1943), p.

236; or O'Gara. TR and the Navy. p. 82. For proponents of the gunnery revolution see Parkes. British Battleships. p. 466; or Arthur J. Marder, Arthur J. The Anatomy of British Sea Power: A History of British Naval Policy in the Pre-Dreadnought Era 1880-1905. (New York: A.A. Knopf, 1970), p. 516. The French response to HMS Dreadnought is illuminating: The French Navy had to proceed with the inferior semi-dreadnoughts of the Danton class because they had an ineffective old model 12-inch gun and an inconsistent gunpowder which together served to obviate the advantages of an all-big-gun battleship. (John R. Walser, "France's Search for a Battlefleet French Naval Policy, 1898-1914." Doctoral Dissertation University of North Carolina at Chapel Hill, 1976 p. 372-376).

34. See Endnote #23 above.

35. William R. Braisted, The United States Navy in the Pacific 1897-1907. (Austin: University of Texas Press, 1958), p.200.

36. Tracy B. Kittredge, Naval Lessons of the Great War a Review of the Senate Naval Investigation of the Criticisms by Admiral Sims of the Policies and Methods of Josephus Daniels. (Garden City, NJ: Doubleday, 1921), pp. 164-166, 191.

37. Alfred Thayer Mahan, "Preparedness for Naval War," in idem., The Interests of America in Sea Power Present and Future. (Boston: Little Brown, 1898), p. 198.

38. For Fiscal Years 1906-1915 American naval expenditures increased 40.2%, while up to FY 1912 (before war preparedness budgets) the aggregate spending of the seven other major naval powers increased by 46.5%. (Figures from U.S., Congress, Senate, Navy Yearbook 1917-18. S. Doc. #7, 65th Cong., 3rd sess. (Washington, DC: Government Printing Office, 1919.)

39. Average annual upkeep, not including refits and repairs, for an American dreadnought ran ~$800,000. The Michigans had cost about $4.5 million to build while the Idahos of 1915 almost quadrupled that ammount. (Figures as from Note #38 above.)

40. See Outien J. Clinard, Japan's Influence on American Naval Power 1897-1917. (Berkeley: University of California Press, 1947), p. iii; George T. Davis, A Navy Second to None: The Development of Modern American Naval Policy. (New York: Harcourt, Brace, & Co., 1940), p. 145; and Stillson, "Naval Establishment." p. 297.

41. Kittredge. Naval Lessons. p. 308. Compare with English policy: Samuel R. Williamson, Jr. The Politics of Grand Strategy Britain and France Prepare for War 1904-

1914. (Boston: Harvard University Press, 1969), p. 238.

42. Harold and Margret Sprout, The Rise of American Naval Power 1776-1918. (Princeton: Princeton University Press, 1946), p.269.

43. See Lewis C. Van Horn, "World War I The Battleships that Didn't Fight." Proceedings 101 (1975) p. 88; U.S., Congress, Congressional Record. 61st Cong., 2nd sess., p. 4065; and Harrison S. Kerrick, Military and Naval America. (Garden City, NJ: Doubleday, 1917), pp. 217-218.

44. Reynolds. Command of the Sea. p. 435.

45. See Herbert E. Russell, "Types of Warships." in Historical Transactions 1893-1943. (New York: The Society of Naval Architects and Marine Engineers, 1945), p. 273; and Paolo E. Coletta, Admiral Bradley A. Fiske and the American Navy. (Lawrence: Regent's Press of Kansas, 1979), pp. 66-69.

46. See Richard Hough, The Great War at Sea 1914-1918. (New York: Oxford University Press, 1983), p.33; and Jon T. Sumida, "British Capital Ships and Fire Control in the 'Dreadnought' Era: Sir John Fisher, Arthur Hungerford Pollen, and the Battlecruiser." Journal of Modern History 51 (1979) pp. 705-30.

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48. John C. Reilly, Jr. and Robert L. Scheina, American Battleships 1886-1923 PreDreadnought Design and Construction. (Annapolis: Naval Institute Press, 1980), p. 131.

49. Davis. Second to None. p. 163.

50. Braisted. Navy in the Pacific 1897-1909. p. 243.

51. Vincent Davis, The Admiral's Lobby. (Chapel Hill: University of North Carolina Press, 1967), p. 126.

52. ibid.

53. See Herwig. Politics. p. 80; and Kenneth J. Bourne, Britain and the Balance of Power in North America 1815-1908. (Berkeley: University of California Press, 1967), pp. 384-386.

54. Maurice Pearton. The Knowledgable State Diplomacy, War, and Technology Since 1830. (Lawrence: United Press of Kansas, 1982), p. 156.

55. Mahan. "Preparedness." p. 180.

56. Cooling. Grey Steel and Blue Water. p. 89.

57. See Notes #7 & #9 above.

58. Alfred Thayer Mahan, "Lessons of the War with Spain," in Wescot, ed. Mahan on Sea Power. p. 247.

59. Henry E. Eccles, Military Power in a Free Society. (Newport, RI: Naval War College Press, 1979), p. 229.

60. S.G. Gorshkov, The Sea Power of the State. (New York: Permagon Press, 1979), p. 91.

61. Reynolds. Command of the Sea. p. 10. Livezey's opinion that "Mahan clearly distinguished between sea power and battle-fleet strength" seems very hard to sustain. (William E. Livezey, Mahan on Sea Power. (Norman: Oklahoma University Press, 1947), p.69.)

62. Cited by Hart in "The Objective in War." in B. Mitchel Simpson, ed. War, Strategy and Maritime Power. (New Brunswick, NJ: Rutgers Univerity Press, 1977), p. 44.

CHAPTER II

IMPLEMENTING THE CAPITAL SHIP STRATEGY IN THE PREDREADNOUGHT ERA

Secretary of the Navy Benjamin F. Tracy's Policy Board of 1889 not only altered the fundamental naval strategy of the United States, but also proposed a specific program to implement its goals. This plan was somewhat ambitious, calling for thirty-five battleships at a time when the United States had only the hybrid Maine and Texas under construction.[1] If approved this would have been the first of the Nouvelles, the long-term fleet expansion programs, that all of the naval powers except the United States and Great Britain adopted before the World War I.[2] Congress rejected the specific program of the Board with such vehemence that Tracy had to disavow it publicly.[3] Although lacking official sanction or legal standing, the Policy Board's Report served, with minor revisions in 1903 and 1908, as the touchstone for the Navy's decision making before the First World War.[4]

The new Mahanian strategy advanced the United States Navy from obscurity to the second most powerful fleet in the world in fifteen years. Despite this accomplishment, the institutional deficiencies that would lead to the

collapse of American naval influence in the early Dreadnought Era became ingrained during these halcyon days. The primary problem was the archaic organization of the Navy that created a confused process for designing warships, encouraged bureaucratic infighting over prerogatives and reform, and contributed to the isolation of the Navy's leaders from the Congress and the State Department. With these obstacles the Navy would not be able to adapt Mahan's Theory of Seapower to a factor he had not considered--the technological aspect of military competition in the twentieth century as embodied by the Dreadnought Revolution.

The Navy's conversion to the capital ship strategy had been, in part, the results of an internal struggle between the modernizing "Insurgents" led by Admiral Stephen B. Luce, and the old guard of the Civil War Navy. Luce succeeded in establishing a new European approach to naval warfare, but failed to alter the Bureau system of management that dated back to 1842. The Navy was divided into seven Bureaus, but the Bureau's responsibilities overlapped in the critical areas of strategy, the tactical requirements for future warships, and their actual construction.[5] The Bureau of Ordnance was responsible for the ships weapons, the Bureau of Steam Engineering controlled propulsion systems, and the Bureau of Construction and Repair had general supervision over everything else; none was answerable for the overall success of a vessel.[6] When

the Bureaus disagreed among themselves or with the officers of the line over a new design, a special board would be convened to make a final determination. Such clashes were frequent because the Bureaus tended to be bastions for the conservative factions of the Navy while the progressive elements were in the line, although the line tended to follow the latest naval fads.[7]

In theory, the Bureau system was controlled and directed by the Secretary of the Navy; several factors combined to make this civilian leadership ineffective. The authority of the executive branch was at a low until Theodore Roosevelt's presidency, and Roosevelt continued the practice of using the office of the Secretary of the Navy as a political reward. Secretaries tended to be inexperienced in naval matters and to have short tenures that prevented even the well-intentioned from establishing command. Tracy was unusually successful for the period. The Bureaus also were well insulated by their powerful connections in Congress. Thus most vital military decisions were left to the transitory special boards, and policy was made on an ad hoc basis.

Tracy succeeded in persuading Congress to approve three battleships of the Indiana class, which along with earlier armored cruisers, designed as super-Alabamas for commerce raiding, constituted the United States Navy's first, makeshift battlefleet in the Spanish-American War. The Indianas got through Congress as "sea-going coast

defense battleships," an indication of the confusion over their future roles. There was a clear consensus for mounting a very heavy armament on the Indiana class, but this required a sacrifice in some other tactical capability and the alternatives were felt to be range or armor.[8] Mahan held that a string of bases could be substituted for intrinsic long-range, and that the engagement of opposing battlefleets in a proper Nelsonian fight to the death made armor a vital consideration.[9] The special board called to make this decision had little difficulty in opting for a very low freeboard, heavy armor, and short range.[10] This was one of the last instances in which the conservative Bureaus and progressive line found themselves in accord.

The fourth American battleship, the Iowa, was an enlarged Indiana that caused little controversy, but the Kearsarge and Kentucky began an almost unbroken string of intra-service quarrels over capital ship design. The Bureau of Construction and Repair (BuCon) desired the mounting of their battery of 8inch guns directly atop the main battery turret in a single enlarged "superposed" turret, while the Bureau of Ordnance wanted the secondary guns in seperate "superimposed" turrets firing over the main battery turret.[11] The acrimonious dispute over superposed turrets lasted until the Dreadnought Era. The superposed turret offered significant savings in weight which made them very popular with American designers, while tacticians feared that they made the ships too vulnerable

to a single penetrating shell, and the line universally despised their utility in actual service.[12]

The first battleships of the major wartime expansion of the battlefleet, the new Maine class briefly avoided the problem, as no foreign power had followed the American lead in mixed main batteries, the 8inch guns were deleted, and their speed was brought up to international standards.[13] At Santiago, the slow firing 13inch cannons of the Indianas scored no hits, while the 8inch guns did hit, though with dismal marksmanship.[14] With this demonstration, all nations took up dual and sometimes triple caliber main batteries.[15] The revival of the medium gun renewed the superposed controversy and even with several special boards the Navy could not reach a consensus.[16] Therefore the Georgia/Connecticut class which made up most of the remaining American predreadnoughts were half built with superposed turrets and half without, a compromise both factions knew to be absurd.

The Navy was similarly indecisive about the utility of underwater torpedo tubes on its capital ships, but the superposition controversy did the greatest damage in undermining Congressional confidence in the technical competency of the Navy.[17] This irritation was justified because these debates could lead to adding two years to the construction of warships that at best ran a year behind Europeans because of American inexperience and developing infrastructure.[18] This led to a steady escalation of

Congressional involvement in what should have been purely military decisions.

The United States Congress had no inclination to surrender its line-by-line control of annual naval appropriations. The other naval powers soon found that long-range planning improved efficiency. The Royal Navy had to have Parliamentary approval of its annual budgets, but there was little interference on how the Admiralty could spend its appropriations, and it had a line of credit.[19] Ship construction and Navy yards provided one of the best sources of pork-barrel projects, and this had been the source of considerable corruption after the Civil War. The delegates of the Eastern seaboard continued to look after the interests of their constituents, but on the whole the Naval Affairs Committees had genuine patriotic motives. Congress forced several wise decisions upon the Navy. The overriding problems were the involvement of naval policy with transitory political issues, the cozy relations of the Bureaus with powerful Congressmen, and the lack of a shared vision between American naval leadership in the Navy and in Congress.[20]

This lack of compatibility was apparent in the early 1890s, when Congress only authorized one more battleship, the Iowa, and no armored cruisers until the onset of serious tensions with Spain in 1894. Instead, Congress authorized protected cruisers, torpedo boats, and subsidized merchantmen for possible use as auxiliaries.[21] The

cruisers proved particulary useful in the Spanish-American War, for scouting in the Caribbean and in the line of battle in the Pacific. After the war, Congress would force submarine construction upon the Navy though the first truly effective submarines of the Holland type were an American invention.[22]

Congress began to restore the coastal fortifications of the nation in the 1890s. The Report of the Endicott Board in 1891 called for a massive renovation and extension of the nation's once formidable passive defenses.[23] The Navy had supported this project in the early 1880s, but the commitment to a battlefleet was thought to make such systems unnecessary, and it was a potent competitor for defense spending.[24] Despite the Navy's derision, the older and less extensive works in the Dardenelles proved an insurmountable obstacle to the British and French Navies in World War I.

Congress had an established pattern of foisting the pet projects of powerful members upon the service; the Navy had the ram Katadhin to match the Congressional dynamite cruiser Vesuvius, though. Senator Eugene Hale of Maine was the "Czar" of the Senate Naval Affairs Committee for most of this era and he fancied small battleships.[25] The charges that this was due to his concern for the Bath Iron Works seem to have been exaggerated, but Hale did force the two Idahos of about a third less displacement on the Navy.[26] Instead of making the most of these ships, the

line insisted that the Idahos match the tactical capabilities of the rest of the fleet; the closest the naval architects could come was a design that was capable of only seventeen instead of eighteen and a half knots.[27] Once in service, the Admirals insisted that the Idahos keep up thus managing to keep them in port with chronically broken engines.[28]

The Navy had several internal problems that caused sufficient problems without these publicly aired quarrels. The mothballing of the Union fleet after the Civil War doubtless had saved a great deal of money for this prevented participation in the era of wild experimentation as naval architecture absorbed the inventions of the Industrial Revolution. This also meant that when the New Navy was begun in 1883 the country had virtually no industrial capacity for the construction of modern warships. The United States chose to provide subsidies to private firms through guaranteed orders in order to modernize. This option was probably as good as any, but it led to extended disputes over the high prices charged to recover start up costs, especially in the price of armor. The inability of the new arms manufacturers to live up to their promises caused many predictable delays though these were not comparatively severe.[29]

The inexperience of American naval architects combined with the conflicting demands of the uncoordinated Bureaus was a more serious problem. The plans of the original

Maine and Texas were purchased abroad, and the first indigenous design, the Indianas had serious defects in their 13inch and 8inch turrets.[30] Training was obtained by sending ensigns to naval architecture schools in Europe until 1901 when MIT imported the Norwegian George Hovgaard (who was noted for designing little coast defense ship).[31] Europeans tended to deride the American designers as "amateurs," and it wasn't until the Connecticut class that the Navy's warships were fully up to European standards.[32]

Despite their lack of professional respect the gravest errors of the Constructors of the Bureau of Construction and Repair were those common to the warships of all the world's navies. Battleships of the predreadnought era were overloaded in the design phase and gained further weight during their construction. This often put their most essential armor--the "belt" on the waterline--below water negating its utility. The American naval architects at least were aware of the problem, but used an inelegant subterfuge of "normal" or unloaded displacement and "full load." It was not reasonable to expect ship's captains to dump their coal before going into battle.[33] The other universal defect was mounting secondary and sub-main battery guns in the hull where they were inoperable on all but the calmest days.[34] American designs had their own foibles, such as the prolonged retention of the ram bow and the grossly undergunned "Big Ten" armored

cruisers, but these resulted primarily from the lack of any final authority on strategic and tactical requirements.

The Naval War College undertook strategic planning from its birth in 1884, but George Dewey attacked Manila, instead of withdrawing to the West Coast almost by chance. Secretary of the Navy John D. Long established the Strategy Board to control naval operations during the Spanish-American war but this was disbanded afterwards.[35] Through Secretary of the Navy's General Order # 524, Roosevelt established the General Board in 1900 to function as a de facto general staff with responsibility for strategic planning and the determination of tactical requirements for future construction.[36] The General Board lacked statutory authority and the Bureau of Construction and Repair established the Board on Construction as a rival influence on the design process.[37]

The struggle over the establishment of a professional central authority for the Navy became the single most deleterious friction for American Seapower in the first two decades of the twentieth century. Luce's one-time "Insurgents" had now become the naval establishment, and a new generation of "Young Turks" emerged to challenge their authority. The conflict would not become public until 1907, but the lines were drawn by 1903.[38] Admiral Dewey, who commanded the General Board, was inclined towards conciliation so the only immediate disharmony was the presentation of separate recommendations for new construct-

ion from the General Board, and the Board on Construction to the Congress, along with a third compromise suggestion from the Secretary of the Navy.[39] Not surprisingly, Congress usually chose to take its own counsel on appropriations for new construction.[40]

For the time being the partisans of the General Board were content with guerrilla warfare. The issue was gunnery, or rather, the failure of the Navy to do anything to improve its dismal shooting in the Spanish-American War. The basic problem was the lack of any means to use the heavy cannons with acceptable accuracy at even a fraction of the range of which they were capable. When Mahan had proposed his theory, it had been assumed that naval tactics would duplicate the point-blank melees at the Battles of Lissa and Mobile Bay. The war had strongly suggested that longer ranges were preferable. The future Admiral Bradley A. Fiske had suggested techniques for radical improvement even before the war, but was content to work slowly within the system.[41] When future Admiral William S. Sims stumbled upon a method of improving the accuracy of the secondary battery he was not so patient.

Sims had already demonstrated his capacity for muckraking with a scathing and unsolicited critique of the design of the Kearsarge and Kentucky. When his report on continuous-aim firing died in channels, he risked his career by writing directly to President Roosevelt. This audacity impressed Roosevelt as well as the soundness of

Sims' recommendations. This led to Sims appointment as the Director of Target Practice, where he could implement his policy. More importantly he gained the President's ear and confidence, later becoming Roosevelt's first Naval Aide. This gave Sims as the leader of the Young Turks his own power base from which to wage the fight for organizational reform. He had also discovered the most vulnerable aspect of the Bureau system--warship design--and he intended to use it.[42]

On a more subtle level, the comprehensive nature of Mahan's Theory of Seapower led to a growing isolation of the Navy's leaders from the nation's other foreign policy apparatus. Mahan made it clear that the overriding naval mission was fighting other navies and that the increased pace of modern warfare required that the Navy be instantly ready to fulfill this function. The most important operational implication was that the battlefleet had to be unified or concentrated at all times.[43] Aside from being based on the a-historical premise that wars arise randomly and without forbodings, the principle of concentration was opposed to the traditional dispersal of naval elements, which the State Department had come to rely on as a major tool of foreign policy.[44]

The Spanish-American War saw the first gathering of virtually all of the United States' capital ships in one battlefleet, including the Oregon that was needed badly in the Pacific.[45] After the war, the battleships were

dispersed back to their regular stations. The General Board finally restored concentration after the Caribbean exercises in 1902 that coincided with the Venezuelan Crisis with Germany.[46] The State Department objected to this move but the main opposition had come from senior officers for whom command of a station was the fulfillment of their careers.[47] The concentration of the battlefleet in the Chesapeake in the summer and the Caribbean in the winter hampered the responsiveness of American diplomacy to events in the rest of the world. Squadrons would be dispatched and have an impact during the Perdicaris affair and the First Moroccan Crisis, but, overall, the navy's capabilities retracted significantly despite the major increase in responsibilities that came with the acquisition of the Spanish Empire.[48] The armored cruisers became the workhorses of American foreign policy which effectively restricted gunboat diplomacy to underdeveloped countries.

The economic determinants of war in Mahanian theory further increased the intellectual isolation of the Navy. In the predreadnought era, the Navy percieved Germany, the other rapidly rising naval and power, as the United States next foe.[49] The United States and Germany each would need more bases and colonies to sustain their growth and there were not enough opportunities left for them both. The aggressive behavior of the German squadron in the Philippines during the Spanish-American War may also have been a factor in this thinking. Admiral Dewey and the German

commander had almost come to blows, that is fisticuffs. Dewey commanded the General Board and most of its members had been junior officers in the Asiatic Squadron.[50] Similarly, the promise of British support at Manila had greatly encouraged the Anglophilia of the United States Navy.[51] It was only after the Dreadnought that the Navy realized that its program was an implicit attempt to wrest hegemony from England, for the time being the Navy simply ignored the potentially deadly consequences of the Anglo-Japanese Alliance.

After the clash with Germany over the proper means of collecting the Venezuelan debt, Roosevelt was able to persuade Congress to continue the rapid buildup of the fleet. This policy was extremely effective in deterring German ambitions in the New World, and after 1904 the Kaiser had to "sedululously cultivate" American goodwill.[52] The Navy did not seem to understand this continuation of policy by other means. American officers were worked up into a bellicose frenzy when all that was immediately at stake was a Naval Appropriations Bill.[53] The Navy did learn that the blandishment of foreign threats was a very effective method for extracting funds from Congress, though this tended to alienate the Democratic minority.[54]

The size and rapidity of the post-Maine buildup of the American battlefleet left an unpleasant legacy for the Dreadnought Navy, a serious manpower shortage. Capital ships require large crews whose salaries made up a major

portion of their astronomical maintenance costs. The Navy was moving to eliminate the large number of aliens in its nineteenth century crews, but it could not afford competitive pay by American standards, nor was it inclined to use conscripts as did Imperial Germany.[55] Thus when this new construction began to join the fleet in the midst of the Dreadnought Revolution, the Navy would have to increase significantly its manpower or cut back on further construction as Congress was not a cornucopia.

Despite the very serious institutional problems noted above, the United States transition to being a great naval power was an overall success. The United States had progressed to the rank of a great naval power from a position of neglible strength in a remarkably short period of time. These flaws had proven to be tolerable and might have continued to be so, but the Navy had not yet established the now traditional fascination of the American military services with technology. This failing will be dealt with in more depth in the following chapter. Therefore the Navy's unwillingness or inability to alter its strategic approach in a new era of naval warfare became the greatest cause of the quiet debacle that would follow. This institutional rigidity did not diverge from the pattern that the New Navy had established in a time when there was less at stake.

ENDNOTES

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2. Holger H. Herwig, "Luxury Fleet". (London: George Allen and Unwin, 1980), pp. 1, 48.

3. U.S., Congress, Senate, "Letter from the Secreatary of the Navy Transmitting, in Compliance with Senate Resolution of January 27, 1890, the Report of the So-Called Policy Board." 51st Cong. 1st sess. Sen. Ex. Doc. 43

4. "Report of the General Board." in Annual Report of the Department of the Navy 1913. (Washington: Government Printing Office, 1913).

5. See Harrison S. Kerrick, Military and Naval America. (Garden City, NJ: Doubleday, 1917), pp. 259-260. The French Navy had similar bureaucratic problems. (John Walsh, "France's Search For a Battlefleet French Naval Policy 1898-1914." Doctoral Dissertation University of North Carolina at Chapel Hill, 1976 p. 300).

6. Norman Friedman, United States Battleships An Illustrated Design History. (Annapolis: Naval Institute Press, 1985), p. 20.

7. Gordon C. O'Gara, Theodore Roosevelt and the Rise of the Modern Navy. (Princeton: Princeton University Press, 1943), p. 59.

8. Cooling, Tracy. p. 85.

9. Alfred Thayer Mahan, The Interest of America in Sea Power Present and Future. (Boston: Little Brown, 1902), pp. 1-21.

10. Herbert Russell, "Types of Warships." in Historical Transactions 1893-1943. (New York: The Society of Naval Architects and Marine Engineers, 1945), p. 278.

11. John C.Reilly Jr. and Robert L.Scheina. American Battleships 1886-1922 PreDreadnought Design and Construction. (Annapolis: Naval Institute Press, 1980), p. 85.

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13. Russell, "Types of Warships." p. 277.

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15. Russel. "Types of Warships" p. 275.

16. See D.W. Taylor, "Our New Battleships and Cruisers." Proceedings 26 (1900) p. 593; and O'Gara, TR and the Navy. p 59.

17. See William G. Groesbeck, "Considerations Affecting the Determination of a Naval Program." Proceedings 31 (1906) p. 173; Homer C. Poundstone, "Proposed Armament of United States Battleships with Some Suggestions Relative to Armor." Proceedings 29 (1903) pp. 380-382; and J.J. Welch, "The Design of Modern Warships." Cassiers Magazine 35 (1909) pp. 19-20.

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19. Arthur J. Marder, The Anatomy of British Sea Power: A History of British Naval Policy in the Pre-Dreadnought Era. (New York: A.A. Knopf, 1970), p. 287.

20. Albert C. Stillson, "The Development and Maintenance of the American Naval Establishment, 1903-1909." Doctoral Dissertation Columbia University, 1959 pp. 14-18.

21. Margret Sprout, "Captain Alfred Thayer Mahan-The Prophet of Sea Power." in Edward M. Earles et al. eds. Makers of Modern Strategy Military Thought from Macvhiaveli to Hitler. (Princeton: Princeton University Press, 1943), p. 232.

22. See Norman Friedman, United States Cruisers An Illustrated Design History. (Annapolis: Naval Institute Press, 1984), p. 41; and O'Gara, TR and the Navy. p. 12.

23. Robert S. Browning, Two If By Sea: The Development of American Coastal Defense Policy. (23.Westport, CT: Greenwood Press, 1982), pp. 168-183.

24. ibid.

25. See Robert G. Albion, "The Naval Affairs Committee 1816-1947." Proceedings 88 (1952) p. 1233; and G. William Hovgaard, A Modern History of Warships. (New York: Spon

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26. Reilly. Predreadnoughts. p. 192.

27. See Elting E. Morison, William S. Sims and the Modern American Navy. (New York: Russel, 1968), p. 156; and Reilly. Predreadnoughts. p. 189.

28. See Richard Hough, The Great Dreadnought The Strange story of HMS 'Agincourt,' The Mightiest Battleship of World War I. (New York: Harper & Row, 1966), p. 83; and Reilly. Predreadnoughts. pp. 191, 193, 197.

29. Benjamin F. Cooling, Grey Steel and the Bluewater Navy The Formative Years of America's Military-Industrial Complex. (Hampden, CT: Archon Books, 1979), pp. 144-145.

30. See John D. Long, The New Navy i (New York: Outlook Co., 1903), pp. 44-45; and "The Needs of Our Navy." editorial McClure's Magazine 30 (1907) p. 519.

31. Kerrick. Military America. p. 259.

32. Fred T. Jane, The British Flee Its Inception and Growth through the Centuries. (London: S.W. Partridge, 1912), p. 148; and Russell, "Types of Warships." p. 279.

33. U.S., Congress, Senate. Department of the Navy, Bureau of Construction and Repair. "Report Concerning Alleged Defects in the Navy by Washing L. Chaps, Chief, Bureau of Construction and Repair." 60th Cong. 1st sess. Senate Doc.297. (Washington, DC: Government Printing Office, 1908), p. 5.

34. Henry Reuterdahl [with William S. Sims], "The Needs of Our Navy." McClure's Magazine 30 (1907) p. 253.

35. Long. New Navy.i p. 241.

36. Vincent Davis, The Admiral's Lobby. (Chapel Hill: University of North Carolina Press, 1967), p. 13.

37. See Friedman. US BB. p. 19; and Stillson, "Development." p. 213.

38. See the 'Reuterdahl Controversy' and the 'Newport Controversy' in Chapter 4.

39. Data on the divergent recommedations is included in many works on the period, those tables provided by Stillson are probably the most usefull (Stillson, "Development." pp. 412-421).

40. See Outien J. Clinard, Japan's Influence on American Naval Power 1897-1914. (Berkeley: University of California Press, 1947), p. 176-178; and O'Gara. TR and the Navy. p. 12.

41. Morison. Sims. p. 108-112.

42. This follows Morison Sims. pp. 94-164. Also note Reuerdahl. "Needs of Our Navy." pp. 262-263.

43. See Abrahamson. Arms for a New Century. pp. 187-188; Richard D. Challener, Admirals, Generals, and American Foreign Policy 1898-1914. (Princeton: Princeton University Press, 1973), p. 33; and Long. New Navy.i p. 2.

44. See Tony Gibbons, The Complete Encyclopedia of Battleships A Technical Directory of Capitol Ships from 1860 to the Present. (New York: Cresent Books, 1983), p. 42; and Long. New Navy. ii pp. 111-113.

45. See O'Gara. TR and the Navy. p. 9; and Ronald Spector, Admiral of the New Empire The Life and Career of George Dewey. (Baton Rouge: Louisiana State University Press, 1974), p. 144.

46. See William R. Braisted, The United States Navy in the Pacific 1897-1907. (Austin: University of Texas Press, 1958), p. 47; and William N Still Jr. American Sea Power in the Old World The United States Navy in European and Near Eastern Waters 1865-1917. (Westport, CT: Greenwood Press, 1980), p. 143.

47. See Seward W. Livermore, "The American Navy as a Factor in World Politics." Mississippi Valley Historical Review 48 (1962) p. 869; and Still. Navy in Europe. p. 171.

48. See Challener. Admirals & Generals. p. 16; and J.A.S. Grenville and George Young, Politics, Strategy and American Diplomacy: Studies in Foreign Policy 1875-1917. (New Haven: Yale University Press, 1966), pp. 270-271.

49. Spector. Dewey. p. 132.

50. Holger H. Herwig, The Politics of Frustration The United States in German Naval Planning. (Boston: Little Brown, 1976), pp. 29-31.

51. ibid.

52. Spector. Dewey. p. 134.

53. Alfred Vagts, "Hopes and Fears of an American-German War 1870-1915." Political Science Quarterly 55 (1940) p. 68.

54. Congressional Record. 60th Cong. 2nd sess. p.1304.

55. Fredrick S. Harrod, Manning the New Navy: The Development of a Modern Naval Enlisted Force. (Westport, CT: Greenwood Press, 1977), p. 36.

CHAPTER III

THE UNITED STATES NAVY AND THE DREADNOUGHT REVOLUTION

The United States' adoption of a capital ship strategy had provided victory in the Spanish-American War and diplomatic success in the Venezuelan Crisis, but the Navy's adaptation to its new role also would set the foundation for the future failure of the policy. Under the building programs for these events, the Navy was moving rapidly towards second place in the world rankings, implementing the goals of the Tracy Policy Board faster than could have been hoped. American naval architecture was gaining respect, if little praise, for the new Connecticut class battleships were up to international standards. The United States had developed the industrial capacity to maintain a modern navy, and public opinion was generally favorable. However, the bureaucratic and political entanglements that had led to the demise of the Old Navy had not been exorcised. The Navy, despite its parvenu international status, had not yet developed the characteristic American military fondness for technology. Its inability to respond adequately to technological innovation, particularly in the form of the Dreadnought Revolution, was the primary determinant of the United States' Navy's ineffectualness during the

critical second decade of the twentieth century, the decade of the First World War.

Under the building programs of McKinley and Roosevelt, the United States Navy was seizing a window of opportunity for the establishment of first rank maritime power. By 1904 both England and Germany had determined that they must cultivate American goodwill as they could not meet the American challenge in the New World while maintaining their positions in the old.[1] This was precisely the strategic opportunity that Admiral Tirpitz had sought to exploit in his original Mahanian plans for the High Seas Fleet. Admiral Jackie Fisher would obviate this threat with his decision to ignore the American and/or Japanese threats and concentrate the Royal Navy in the North Sea.[2] The United States had been building a genuine battlefleet, and had the opportunity to continue to do in March 1904 when Secretary of the Navy Morton proposed the construction of a super-armored cruiser and two battleships at a time when American theoretical development of the allbig-gun concept was as advanced as anywhere in the world.[3] This opportunity to seize the technological initiative slipped away, and while American Dreadnoughts would be the result of an independent initiative, the effort to establish a battlefleet was wrecked on economic and technological rocks.

At the turn of the century, naval tactical requirements were evolving in directions that were not fulfilled by existing capital ships. After an era of wild experi-

mentation, international naval architects in the 1890s reached a consensus, a standard battleship. These ships had main batteries of four heavy guns, an intermediate battery of twelve to thirty medium guns (often of two calibers), and a variety of light guns for defense against torpedo boats. They displaced around twelve thousand tons with speeds of eighteen knots and a ram for close combat. Several developments were making it both desirable and feasible to fight at long range rather than to engage in melee. The range and efficiency of torpedoes was increasing, and the new "smokeless" powder made carefully directed gunfire possible. Naval inventors, most notably Percy Scott and Bradley A. Fiske, were developing techniques and devices to make accuracy at long-range attainable. The Battles of Manila Bay and Santiago had demonstrated that being able to strike the foe at all at a range where his fire was completely ineffective, made for total and inexpensive victories.

By 1900, many naval designers realized that a possible answer to the demands of long-range engagement lay in vessels with a large number of heavy guns, an all-big-gun battleship.[4] At the schools of naval architecture in Europe, the all-big-gun solution was a general topic of conversation.[5] Senior British officers were also discussing the concept and may have been doing so for three years already.[6] There were several rationales behind the all-big-gun battleship that were not entirely congruent.

These theories, which can be grouped for convenience in three schools--"Speed," "Shell-Weight," and "Splash"-- all made contributions to the ultimate development of the dreadnoughts. Only one, though, irrefutably required the introduction of the huge and dauntingly expensive new dreadnought type. The Dreadnought Revolution was just that, not simply a step in a general trend towards larger battleships.[7]

The most famous of the fathers of the dreadnought, John A. Fisher and Vittorio Cuniberti, were the leaders of the "Speed" school. They maintained that speed was the preeminent tactical quality of a warship, so that the new style of capital ship should be very fast. With this speed, Fisher and Cuniberti believed that the ship could choose its conditions of battle with impunity and, thus, should mount a large number of the heaviest cannons in order to deliver quick and mortal blows. They realized that disproportional increases in size were required to increase speed. This could be partially resolved by reducing armor, as their ship would not have to engage in sustained gun duels. Their views were quite debatable, but their prestige and proselytizing were most responsible for the creation of the Dreadnought.[8]

The "Shell-Weight" school was most concerned with the superior firepower of larger guns; the weight and destructive power of a shell increases as the cube of its diameter. William S. Sims and Homer C. Poundstone were

best representative of this position, which was less defined than the others. They realized that the capital ship of the future would be very large and would mount a uniform main battery, but they were willing to accept a gradual development towards this goal. The first, most critical step would be a larger ship with conventional ordnance, the deletion of the medium battery, and then a single caliber main battery, a true dreadnought. Sims and Poundstone were aware of the other schools and upheld these theories, but they took a realistic, if conservative, view of what was politically and financially possible.[9]

William L. Rogers and Bradley A. Fiske represented the "Splash" school in the United States whose primary concern was with accuracy. Effective gunnery at long-range required some method to correct fire onto the target. Beyond five thousand yards only the splash of a miss could be observed, and it was impossible to distinguish between those created by 8-inch and 12-inch shells. Guns of differing caliber have very different ballistic characteristics that required distinct fire-control information. Therefore, accurate gunfire demanded a uniform battery, and the more heavy guns the better.[10] The "Splash" method offered irresistible tactical advantages to the developer despite the increased costs of the larger ships that would be necessary. Combined with the rapid development of range-finders and central fire-control systems, there was a true technological revolution in gunnery. After the con-

struction of the Dreadnought, the new type was subject to severe criticism that included rational objections to "Speed" and "Shell-Weight." The logic of the "Splash" school was far more difficult to deny.

No less a figure than Alfred Thayer Mahan, then at the height of his fame, led the opposition to the all-big-gun ship. He rejected the speed argument because it depended entirely upon the condition of the vessel and was the least reliable attribute of a warship. He believed that the Quick-Firing guns of the medium battery would deliver an overwhelming volume of shells that could do fatal cumulative damage to the unarmored portions of a foe. Mahan also doubted the effectiveness of long-range gunnery, and felt that it was somewhat unmanly. His main objection was against the increased costs. This would distribute a nation's defenses in too few hulls, and would disrupt the informal arms limitation of the conventional battleship.[11] The Prophet was correct, but for the wrong reasons. Despite his prestige, the American advocates of the new battleship would have more trouble with bureaucratic obstruction than with theoretical arguments.

Sims and his "Insurgents" had chosen the realm of warship design as the battlefield in the struggle for organizational reform in the Navy. They wished to surmount the seven Bureaus of the Navy, which were virtually independent fiefs, with a proper Prussian-style General Staff. The Bureau system had caused serious problems in the design

process of American warships because of its overlapping spheres of responsibility. The chief faults were the lack of overall accountability for the success or failure, and a very muddled conflict-resolution process. The Board on Construction and the General Board had conflicting mandates to determine the desired qualities of new construction.[12] Although the Bureau of Construction and Repair (BuCon) had general oversight over ships' plans, propulsion and armament were handled by separate Bureaus. When dissention arose over a proposed design (which was very frequent) the Secretary of the Navy would convene a special board to render judgement. The officers of the line had very little input in the evolution of a design, though they usually held the majority on these special boards.[13] The "Insurgents" were not interested, however, in just a reform of the design process, but in a complete overhaul of the Navy.

The first documented stirrings of the dreadnought concept in the United States came in 1901, with strong suggestions of a British influence. In March Sims was in Hong Kong while en route to assignment, and there met Percy Scott, the Royal Navy's gunnery expert. In one of the most underrated intelligence coups in American history, Scott proceeded to divulge all of his latest theories and developments. Sims learned of the "Splash" method of long-range gunnery, though Scott's concept of "Continuous Aim" for improving intermediate fire excited him more. Upon reaching the nearly derelict Monocray, Sims fell in

with Homer C. Poundstone, and both began working diligently on new battleship designs. Poundstone devised three schemes-- a modest improvement dubbed the "Feasible," a semi-dreadnought called the "Probable," and a true all-big-gun design, the "Possible." Poundstone had received training as a naval architect at Annapolis and at the European schools, but these circumstances suggested that the primary inspiration for the "Possible" had come from Scott. It has been reported that Sims referred to the "Possible" as the "Skeerd O'Nothin," "an obvious American-ization of Dreadnought."[14]

The following year saw the first professional writing on the subject, and the first officially generated sketch designs. In May and June, Cuniberti published articles in Marine Rundschau, although these reached a limited audience.[15] However, in March, Matt H. Signor suggested a mixed all-big-gun battleship in an article in the semi-official Proceedings of the United States Naval Institute. Philip R. Alger replied in the June issue, proposing a ship with eight 12-inch guns.[16] BuCon was then studying designs for the troublesome small battleships of the Idaho class. One of the alternative schemes mounted twelve 10-inch guns, which was indisputably an independently derived all-big-gun battleship.[17] Naval authorities soon rejected the 10-inch gun as too small for the main battery, and later difficulties in designing the Michigans suggested that this plan could not have been realized.[18] Although the Navy's

designers were scorned as amateurs in Europe, they had been the first to begin development of the most important development in capital ships until the aircraft carrier. Unfortunately, the special board for the Idahos rejected this proposal, which BuCon would interpret as a repudiation of the all-big-gun approach.[19]

In 1903, Cuniberti and Poundstone published major articles and the General Board took official notice of the new theories. "An Ideal Battleship for the British Navy" was the single most important step in the origin of the dreadnoughts. Cuniberti's piece through its publication in Jane's Fighting Ships legitimized the concept in the eyes of the general naval community. The article was a pure example of the"Speed" school, and the vessel he proposed was beyond the attainment of existing technology.[20] Poundstone's two articles in Proceedings mostly argued for the "Feasible" and the "Probable." The General Board instructed the Naval War College to test the concept in its Summer Wargames, but did not mention their interest in the unofficial 1903 program.[21]

The outcome of these simulated battles greatly favored the new type, which stimulated the General Board to cautious action.[22] In October, it requested that BuCon develop plans for a ship with "twelve heavy turret guns, none which shall be less than 10 inches and at least four of which shall be 12 inches."[23] William Rogers, who had directed the games, objected to the Board's proposal of a

mixed main battery in his official report. In this memorandum Rodgers argued for the superior gunnery offered by a uniform battery.[24] Despite repeated prodding, BuCon would not begin development of this proposal for eleven months, in part because of a shortage of personnel.[25]

The advocates of the all-big-gun battleship did not wait while the Russo-Japanese War provided the first real test of the modern fleets of major powers. Japan ordered the battleships Aki and Satsuma in late 1904. These ships were originally designed with ten 12-inch guns, six to be mounted in single wing turrets. These semi-dreadnoughts would not be completed until 1910, with an armament of four 12-inch and twelve 10-inch guns. It was not clear if the original design was workable.[26] The Japanese designers seemed to have been in accordance with the "Shell-Weight" school as their later Kawachi class, although generally counted as dreadnoughts, mounted 12-inch guns of both 45 and 50 caliber which negated the "Splash" rationale for the Dreadnought Revolution.

BuCon's procrastination did not deter the advocates of the new type in the United States. Poundstone began circulating "detailed plans" of the "Possible" in June 1904.[27] Sims was serving as Theodore Roosevelt's naval aide, and engaged the Commander-in-Chief's formidable, if transitory attention to the battleship question. Roosevelt found the triple battery of the latest American predreadnoughts peculiar, and wrote that it "seems to me that the

armament should be composed of 12" or 11" guns and a secondary battery of 3" guns."[28] In October, he instructed BuCon to consider building the newly authorized New Hampshire as an all-big-gun battleship.[29] The Bureau quickly responded that "nothing has transpired during the past year to justify extensive changes in the main battery of vessels building or recently designed" and that the Connecticut class were "as powerful as anything built or building in Europe."[30] BuCon also produced supporting memos from the Bureau of Navigation and the recently retired Chief Constructor of the Royal Navy.[31] As the President took no further action at that time, this barrage apparently was enough to satisfy him.

The Royal Navy had not viewed the previous year as so uneventful. The naval battle of Port Arthur had seen effective gunfire at twelve thousand yards, and Fisher had attained command of the fleets. He began serious work on the Dreadnought in the spring of 1904.[32] The Royal Navy made an explicit commitment to the all-big-gun ship in October, and Fisher summoned a committee, packed with his supporters, which began meeting in January 1905. Their report was completed on February 21, the final design was completed in March, and the Dreadnought was laid down on October 2. Fisher had begun to assemble materials in January. By such means, the Dreadnought was completed before the end of 1906 in record time.[33]

On March 3, 1905, The Congress of the United States

authorized the construction of two battleships of the Michigan class. The authorization was for ships of the same cost and displacement as their predecessors, which would not indicate the intention of building anything radical.[34] The Congressional debate over funding these vessels was devoid of any reference to the all-biggun concept.[35] Congress stipulated that no money was to be appropriated until the Secretary of the Navy had approved final blueprints.[36] This was apparently decided in committee to express irritation with the prolonged squabbling over the designs of the Connecticuts and the Idahos. The Annual Report of the Navy Department did not mention what limited developments had already been made.[37]

In September 1904, BuCon had at last begun its study of the all-big-gun theory, which would produce unanticipated dividends due to the problem of working within the Congressional size limit.[38] In October, there was a sketch of an all 12-inch gun ship utilizing wing turrets.[39] Although American battleships typically mounted intermediate guns in such turrets, the constructors found that heavier cannons would compromise structural integrity to an unacceptable degree.[40] The early months of 1905 probably were spent trying to resolve this problem with lighter 10-inch guns, but without success.[41] Radical steps were necessary, and Chief Constructor Washington L. Capps decided to use superfiring turrets. Although it would not be known whether the raised turrets would prevent the lower

turrets from engaging targets fore and aft, Capps felt that broadside firepower was the critical element.[42] The design process then proceeded rapidly: the finalized plans were submitted to the Navy in November, and approved on December 15, 1905.[43]

By this time the specifications of the Dreadnought had reached the press and her revolutionary nature revealed; news that would paralyze the United States Navy. The Navy had not expected the Dreadnought to be anything unusual, there had been a major breakdown in information gathering.[44] Since the War of 1812, the American naval tradition had called for individually superior warships. The Michigans were a far superior prototype of later developments, but they were gravely overmatched. The Dreadnought by virtue of two thousand tons greater displacement and turbine engines, was significantly faster and carried more guns placed higher above the water. Admiral Dewey and the General Board campaigned to have the Michigans re-authorized in order to equal the English monster.[45] Mahan was aghast at the total elimination of the intermediate battery, and complained loudly and publicly. This pressure from both sides forced Roosevelt to suspend construction for a year while the matter was resolved.[46]

Togo's annihilation of the Russian Baltic Fleet at Tsushima provided a clear test for the contending tactical theories. Mahan based his arguments around a faulty account of the battle which underestimated the Japanese

speed advantage and overestimated the effect of a "hail of fire" from the intermediate guns.[47] Sims' reply based on correct information, dismasted Mahan in all eyes but his own.[48] However, it should be noted that while the Americans had to wait for press reports, the English had an observer with the Japanese fleet who quickly confirmed the decision of Fisher's committee to use the heaviest guns.[49] The anti-Dreadnought forces did win the point that the 3-inch anti-torpedo boat battery on the Michigans was inadequate, and then retreated to supporting small, all-big-gun battleships.

In June 1906 Congress again turned to naval appropriations, now well aware of the Dreadnought. The Navy delivered a divided recommendation for the authorization of new battleships. The Secretary and the Board on Construction wanted three more Michigans, while the General Board insisted on two genuine dreadnoughts.[50] Each proposal cost about the same, so the basic issue was many "low-tech" ships or a few "high-tech" ships. In any event, Congress was not impressed at the Navy's indecision and authorized only one battleship. This ship was not restricted in size, but her design was to be determined by an open competition, with the winning plans to be funded only after Congressional inspection and approval.[51] This verdict would be a crushing setback to the development of the American battlefleet, but it is hard to fault Congress given the impression given by the Navy that it didn't know what it

was doing. The design competition would so delay the Delaware that she was completed only a week before her sister, the North Dakota, authorized in 1907. BuCon completed the basic work on these plans in July, as well as those for the later Arkansas class.[52] These designs had some flaws, but the ships were at least equal to their foreign contemporaries. The Bureau was capable of prodigious effort and artful work when outsiders threatened its province.

Four years later the South Carolina, Michigan, Delaware, and North Dakota finally joined the Atlantic Fleet. This delay destroyed the opportunity of the United States to establish itself independently as a great naval power with global commitments. In 1908 Roosevelt attempted to re-establish the place of the United States in the International Naval Race, an effort which was doomed to failure because of the highly inefficient fiscal management of the Navy.[53] Problems in the design process and the two year lag in construction that these spawned were major but not the primary causes of the deficiencies of the Navy. The greatest failure was that of the leadership of the Navy that did not adapt to the changed strategic position of the United States. They had the perfect solution of Sea Power and saw no need to modify it.

ENDNOTES

1. See Holger H.Herwig, The Politics of Frustration The United States in German Naval Planning. (Boston: Little Brown, 1976), p. 120; and Kenneth J. Bourne, Britain and the Balance of Power in North America 1815-1908. (Berkeley: University of California Press, 1967), p. 287.

2. Herbert Rosinski, The Development of Naval Thought: Essays by Herbert Rosinski. B. Mitchel Simpson III ed, (Newport, RI: Naval War Colllege Press, 1977), p. 107.

3. U.S. Congress, Annual Report of the Department of the Navy 1904. (Washington: Government Printing Office, 1905), p. 5.

4. Richard A. Hough, Admiral of the Fleet, the Life of John Fisher. (New York: Macmillan, 1970), p. 236.

5. Rear Admiral Henry Williams to Editor, October 1948 in "Discussion, Comments, Notes" Proceedings 74 (1948) p. 1293. Williams had attended one of said schools in France.

6. 1900 is generally accepted. (Donald MacIntyre, The Thunder of the Guns: A Century of Battleships. (New York: W.W. Norton, 1960), p. 155; and McMahon. Dreadnought Battleships. p. 11). Hough suggests 1897 (Hough. Fisher. p. 236.) but provides no documentation.

7. The Dreadnought battleship has been widely held to be only an evolutionary step in Capital Ship development. (Bernard Brodie, Sea Power in the Machine Age. (Princeton: Princeton University Press, 1943), p. 236; or Gordon C. O'Gara, Theodore Roosevelt and the Rise of the Modern Navy. (Princeton: Princeton University Press, 1943), p. 82). For proponents of the gunnery revolution, see Oscar Parkes, British Battleships "Warrior"1860 to "Vanguard"1950: A History of Design Construction, and Armament. (London: Smith Publishers, 1958), p. 466; or Arthur J. Marder, The Anatomy of British Sea Power: A History of British Naval Policy in the Pre-Dreadnought Era 1880-1905. (New York: A.A. Knopf, 1970), p. 516. The French response to the Dreadnought is illuminating: The French Navy had to proceed with inferior semi-dreadnoughts of the Danton class because they had an inconsistent old model of 12-inch gun and an unreliable gunpowder which eliminated the "Splash" advantage. (John R. Walser "France's Search for a Battlefleet French Naval Policy

1898-1914," Doctoral Dissertation. University of North Carolina at Chapel Hill, 1976 pp. 372-376).

8. For discussion and comment on the roles of Fisher and Cuniberti, see Richard Hough, Dreadnought A History of the Modern Battleship. (New York: Macmillan, 1964), pp. 5-7; George W. Hovgaard, Modern History of Warships. (New York: Spon & Chamberlin, 1920), pp. 136-137; and Marder. Anatomy. pp. 516-517.

9. See Homer C. Poundstone "Size of Battleships for the U.S.Navy" Proceedings 29 (1903) pp. 161-174; idem. "Proposed Armament for Type Battleship of the U.S. Navy with some suggestions relative to Armor" Proceedings 29 (1903) pp. 377-412; and William S. Sims "The Inherent Tactical Qualities of All-Big-Gun, One Caliber Battleships of High Speed, Large Displacement and Gunpower" Proceedings 32 (1906) pp. 1337-1366. For their willing to compromise see George W. Hovgaard, General Design of Warships. (New York: Spon & Chamberlin, 1920), p. 18; idem. Modern History. p. 479; Friedman US BB. p. 55; and Elting E. Morison, William S. Sims and the Modern American Navy. (New York: Russel, 1968), p. 160.

10. Morison. Sims. pp. 160-167.

11. Robert Seager II, Alfred Thayer Mahan The Man and His Letters. iv (Annapolis: Naval Institute Press, 1977), p. 514.

12. See Richard D. Challener, Admirals, Generals, and American Foreign Policy. (Princeton: Princeton University Press, 1973), p. 47; Vincent Davis, The Admiral's Lobby. (Charlottesville: University of North Carolina Press, 1967), p. 255; Norman Friedman, U.S. Cruisers An Ilustrated Design History. (Annapolis: Naval Institute Press, 1984), p. 45; and Ronald Spector, Admiral of the New Empire The Life and Career of George Dewey. (Baton Rouge: Louisiana State University Press, 1974), pp. 157-158.

13. See O'Gara. Modern Navy. pp.44-45; " The Reuterdahl Attack on Our Navy" Scientific American 97 (1908) p. 38; and Albert C. Stillson "The Development and Maintenance of the American Naval Establishment" Doctoral Dissertation, Columbia University 1959, p. 303.

14. See Friedman U.S. BB. pp. 456-457; Morison Sims. pp. 81-91; D.R. Morris, "Homer C. Poundstone and the Dreadnought" Proceedings 74 (1948) pp. 717-718, 720; and "Discussion-Notes" Williams letter p. 1293.

15. Hough. Dreadnought. pp. 5-6.

16. See Matt H. Signour, "A New Type of Battleship" Proceedings 28 (1902) pp. 1-20;and Letter Professor Alger to Editor, July 1902 in "Discussion, Comments, Notes" Proceedings 28 (1902) pp. 269-272.

17. Friedman. US BB. p. 51.

18. See Richard Hough, The Great War at Sea 1914-1918. (New York: Oxford University Press, 1983), p. 9.; Parkes. British Battleships. p. 461; and Friedman. US BB. p. 53.

19. John C. Reilly, Jr. and Robert L. Scheina, American Battleships 1886-1923 Pre-Dreadnought design and Construction. (Annapolis: Naval Institute Press, 1980), p. 180.

20. See Siegfried Breyer, Battleships and Battlecruisers 1905-1970. trans. Alfred Kurti (Garden City, NJ: Doubleday, 1973), pp. 44-45; and Hough. Dreadnought. p. 7.

21. See Breyer. Battleships. p. 44; Marder. Anatomy. p. 541; Spector. Dewey. p. 174; and Stillson, "Development" p. 217.

22. Ronald Spector, Professors of War The Naval War College and the Development of the Naval Profession. (Newport, RI: Naval War College Press, 1977), p. 115.

23. This is very frequently quoted, see Spector. Dewey. p. 174.

24. William L. Rodgers, "Memorandum in Regard to the Tactical Advantages of Suppressing the Intermediate Battery of Battleships and Armored Cruisers" Naval War College October 1903 RG8, cited in Spector. Professors. pp. 116-117, 165.

25. See Friedman. US BB. p. 53; Marder. Anatomy. p. 541; and Spector. Dewey. p. 175.

26. See Conway's 1906-22. p. 223; and Hough. Dreadnought. p. 19. Hough suggests 8 single wing turrets while Watts believes that these ships were originally designed with a mixed battery, redisigned with the 12-inch wing turrets then shifted back. (Anthony J. Watts and Brian C. Gordon, Warships of the Imperial Japanese Navy. (Garden City, NJ: Doubleday, 1971), pp. 171-5.

27. See Morris, "Poundstone" pp. 717-718; Morison. Sims. pp. 159-160; Williams Letter p. 1428; and Friedman. US BB. p. 54.

28. Theodore Roosevelt to Secretary of the Navy Morton 10/6/04 Roosevelt Papers, Library of Congress, Washington, DC.

29. Morison. Sims. pp. 161-162.

30. See Morison. Sims. p. 162; and Spector. Dewey. pp. 174-175.

31. Morison. Sims. pp. 162-163.

32. See Breyer. Battleships. p. 46; Hough. Fisher. p. 237; and Marder. Anatomy. pp. 527-530,542.

33. See Arthur J. Marder " Fisher and the Genesis of the Dreadnought" Proceedings 78 (1952) p. 1312; Conway's 1906-1922. p. 21; Hough. Fisher. pp. 238-241; Marder. Anatomy. pp. 527-530; and McMahan. Dreadnought Battleships. p. 11.

34. U.S. Congress, Navy Yearbook 1906. (Washington: Government Printing Office, 1907), p. 488.

35. U.S. Congress. Congressional Record 58th. Congress, 3rd. sess.

36. Navy Yearbook 1906. pp. 50, 483.

37. U.S. Congress. Annual Report of the Department of the Navy 1904. (Washington, DC: Government Printing Office).

38. See "Battleships Dreadnought and South Carolina," Scientific American 95 (1906) pp. 303-304; Hovagaard. Modern History. pp. 146-147; McMahon. Dreadnought Battleships. p. 92; and Sims, "Inherent Tactical Qualities" p. 1361.

39. Hough made much of this design, Friedman did not. (Hough. Great War. p. 10; and Friedman. US BB. p. 55).

40. See Friedman. US BB. p. 55; and Marder. Anatomy. p. 542.

41. The final Michigan design was "Scheme S" in a series of design studies; the rest of the studies are missing from the archives which is very unusual. (Friedman. US BB. p. 57). See also Hough. Dreadnought. pp. 10-11; Marder. Anatomy. pp. 541-542; and Stillson, "Development" p. 221.

42. Some Italian writers had suggested the all-center-line arrangement in Rivista Marittime 19 (1904). (Fred T. Jane. Heresies of Sea Power. (London: Longman Green, 1906) p. 319). See also Friedman. Cruiser Design. pp. 98-99; and idem. US BB. p. 55.

43. Friedman. US BB. p. 62.

44. "Professional Notes" Proceedings 31 (1905) p. 44.

45. See Friedman. US BB. p. 23; Morison. Sims. pp. 88-89; New York Times 3/21/06, 10/24/05, 8/21/05; Parkes. British Battleships. p. 467; Spector. Dewey. pp. 174-175; and Stillson, "Development" p. 155.

46. See Annual Report 1906. p. 588; Hough. Great War. pp. 35-36; and "Professional Notes" Proceedings 32 (1906) p. 1146.

47. See Mahan "Reflections."

48. See Sims, "Inherent Tactical Qualities"; and Seager. Mahan. p. 514-516.

49. Hough. Great War. p. 9.

50. See U.S. Congress Annual Report of the Department of the Navy 1905. p. 20; Outien J. Clinard, Japan's Influence on the Development of American Naval Power. (Chicago: University of Chicago Press, 1943), p. 176.

51. See Annual Report 1906. p. 18; and Stillson, "Development" p. 217.

52. See Annual Report 1906. p. 551; Friedman. US BB. pp. 66,69; and Stillson, "Development" p. 217.

53. American naval expenditures exceeded those of France and Germany combined though they were substantially below those of Great Britain (Archibald Hurd, "The American Fleet" Cassier's Magazine xxxi (1910) p. 468). For Fiscal Years 1906-1915 (before war programs), American naval expenditures increased 40.2%, while up to 1912 (as above) the aggregate spending by the seven major naval powers increased 46.5%. Figures from: U.S. Congress, Senate, Navy Yearbook 1917-18. S.Doc. #7 65th Congress, 3rd. sess., 1919).

CHAPTER IV

AMERICAN CAPITAL SHIP STRATEGY AND DREADNOUGHT POLICY TO THE UNITED STATES' ENTRY IN THE FIRST WORLD WAR

The completion of the predreadnoughts ordered during the Spanish-American War had carried the United States Navy past France to second place in the world rankings in roughly 1904; because of the delays in the completion of the first American dreadnoughts, Germany had passed the United States by 1911.[1] Such rankings were based only on the number of warships in the fleet, so this does not reflect the qualitative decline in the Navy's effectiveness. Pressed by a wide array of strategic dilemmas, the Navy's leadership believed the only answers were contained in the Theory of Sea Power, and, in their interpretation, the Capital Ship Strategy solved all problems with more battleships.

The Navy's decision to devote all its efforts to the preparedness of the battlefleet, especially to acquiring more dreadnoughts had a profound impact on all aspects of national strategy. Within the Navy, factionalism grew as Sims' Insurgents honestly sought improvement in the design process in order to get the Navy better battleships

and more scientific management of the battlefleet. The manpower crisis became more severe, and research and development of new technologies was impeded. More importantly, the Navy in general, and the General Board in particular, became progressively autonomous and isolated from domestic and international affairs. The Navy would keep to its own course which sometimes ran against the foreign policies of Taft and Wilson, although the converse was also and often true. After the return of the Great White Fleet, the Navy rapidly ceased to be an important factor in international diplomacy. Roosevelt's successors were, indeed, much less inclined to an active policy, but this did not relieve the Navy of its responsibilities to enhance and protect the national interest.

As in perhaps all defense debates the crucial issue was funding. In 1905, President Roosevelt had declared that he was "satisfied" with the development of the fleet, and that thereafter only one battleship annually would be necessary.[2] He hastily recanted after hearing of HMS Dreadnought, but the Democrats had been given a very effective stick for opposing further naval expansion.[3] In the election of 1912 it became prudent for candidate Woodrow Wilson to favor the "traditional" Roosevelt policy of "two battleships per year," and in 1916 to become a full-blown navalist.[4] Yet for the critical years of the Dreadnought Race, Congress would not appropriate enough money for the Navy to remain competitive; given the

higher American operating expenses it was questionable if this was a fiscally possible option.[5] The General Board felt that its entire recommendation had to receive Congressional approval every year, and essentially refused to compromise.[6] The failure to adopt naval strategy and policy to this vital consideration was a Navy decision, properly within its domain, neither the Congress nor the President realistically could be blamed for failing to give the Navy everything it wanted.

The advent of the Dreadnought generated the first public debate and controversy over warship design in the United States. The South Carolinas could be argued to have proceeded the Dreadnought, and Scientific American could maintain that they were better ships ton-for-ton.[7] However, the Dreadnought was a sharp challenge to the American tradition of individually superior naval vessels for the larger British ship was unquestionably better. The General Board campaigned actively, but futilely to have the South Carolinas re-authorized to match the Dreadnought.[8] This served only to heighten the debate over the Dreadnought principle. BuCon, Senator Hale, and Mahan all favored smaller battleships, and the later was a name to conjure with. As noted above, Sims won this argument, and Mahan eventually came to advocate Dreadnoughts, but intra-service tensions were heightened.[9]

The first major post-Dreadnought friction to develop within the Navy revealed the underlying struggle for

bureaucratic reform. Under Roosevelt the General Board and the Naval Aide system had been created, but only through Executive Fiat.[10] As his second term waned Sims felt compelled to establish more formal and comprehensive reforms, and he had just completed a major contest on the issue of design. Sims worked through the naval artist Henry Reuterdahl (probably with Roosevelt's knowledge) to publish a broad attack on the Bureau system in the muck-racking McClure's Magazine. The article, "The Needs of Our Navy," focused on the confusion in the process of designing warships, on which even Mahan had commented.[11] However, the bulk of the criticisms were directed at problems common to most of the world's battleships. BuCon with very strong support from Senator Eugene Hale was able to bury the ensuing investigation in committee when the Insurgents proved to be better armed than expected.[12]

Thwarted in this effort, the Insurgents took their last shot before Roosevelt retired. The 'real' American dreadnoughts of the North Dakota class, and their near sisters the Floridas had certain flaws that the Insurgents publicized. Roosevelt had to summon a large special board to the Naval War College to settle the matter. This time, Sims and his cohorts had much less sound arguments and they were soundly defeated at the Newport Conference. Their underlying desire had been to try to introduce the use of 14-inch guns instead of the standard 12-inch rifle in order to reclaim the technological initiative for the

United States. Roosevelt himself rejected their position because it would entail further extensive delays before the battleships were completed.[13] This followed a general change in naval policies internationally, to complete warships as designed rather than accept the delays of modifying the vessels to the latest standards during construction.[14] In this instance, it might have been a worthwhile step for the United States to have taken, but, given the long lag in American construction already experienced, Roosevelt's judgement cannot be condemned.

Under the Taft administration the reformers were able to make small gains such as gaining the statutory authorization of the General Board, but the lingering controversy regained steam under Wilson.[15] The Navy had little faith in the Democrat's sudden conversion to moderation in defense policy, and under Bradley Fiske's leadership was able to slip the creation of the Office of Chief of Naval Operations through Congress.[16] The new Secretary of the Navy, the pacifist Josephus Daniels, responded by appointing a compliant non-entity to the post.[17] Daniels was the first Secretary to master the Navy since Gideon Welles, and though he was a very active advocate of the Navy in some areas, his relations with the admirals was generally hostile. Daniels was particularly concerned about the status of enlisted men in the fleet. He doubtless accomplished some good but his anti-VD morality campaign was ridiculed and his dispatch of the battlefleet on a European

cruise because a sailor complained about his lack of sea time was ridiculous.[18]

Appropriations were a major factor in the Navy's limited research and development effort, although professional conservatism also played a role. American constructors came up with several notable advances, most notably the use of superfiring turrets to concentrate main-battery fire on the center-line, and the "all-or-nothing" method of distributing armor only on the most vital sectionsof a battleship.[19] However, the period was more accurately characterized by unfulfilled promises and the premature use of untested principles. American naval architects became more adept, and designed battleships to beat their immediate contemporaries, but this advantage was lost through the longer building time. It was not until 1912, when the Oklahomas formed the mold for the semi-standardized second generation of American dreadnoughts, that the Navy really gained parity with its contemporaries.[20]

The American opportunity to launch the first all-big-gun battleship has been noted, as well as Fiske's early work on fire control. The Navy was not particularly interested in aeroplane or submarine development either. Fiske had an early interest in the possibility of a torpedo carrying aeroplane, but after some failures in preliminary tests the project was discontinued.[21] Great opportunities lay in the further development of the "Ironsides" project

for a battleship well protected against plunging fire (ie long-range steep trajectory shells), and torpedoes.[22] As designers of all the Powers once had trouble overloaded the predreadnoughts, the tactical principles of long-range combat were not reflected in the arrangement of armor until after World War I.[23] The "Ironsides" project was fruitful in its stepchild, the "all-or-nothing" armor scheme which ignored the hail of fire from the secondary battery that Mahan had once feared by leaving non-vital areas of the ship completely unprotected.[24]

The Navy usually had to use front-line ships as test beds for new technologies. The Chester class light cruisers, the only light cruiser built by the United States from the Spanish-American War to World War I, tested reciprocating, Parson turbine, and Curtiss turbine power plants. All ended up in reserve which was no great loss, as they were only overgrown destroyers too small to provide all weather scouting for the battlefleet.[25] The North Dakota also employed the unsuccessful Curtiss turbines which could not be kept in operating condition. The North Dakota was the only American dreadnought left in reserve, which was a significant loss to the Navy's combat strength.[26]

An equally serious problem lay in the development of new cannons, which was one of the most intense areas of competition in the international dreadnought race. The Navy brought out a new model of 40-caliber 12-inch gun

to serve as the primary piece for the World War I era battlefleet. This cannon proved to be too weak in service and after several accidents they had to be removed and retro-fitted with an external reinforcement of wrapped wire. Even so, the cannon was not trusted, and the Navy directed that a reduced propellant charge be used, with a significant decrease in penetrating power.[27]

The Navy's personnel policies tended to decrease the available strength of the fleet. Some, most notably Peter Karsten, and some democratic Congressmen of the time, charged that the entire push for the expansion of the Navy was based on its officer's quest for job opportunity and security.[28] James Abrahamson noted that a continued "guerre de course" strategy would have provided more jobs, especially more command billets, through its hordes of torpedo craft.[29] This debate seems to have been off course, for the Navy's manpower did grow steadily. The further increases needed to properly man the battlefleet were sacrificed, like the necessary destroyers and colliers, for more battleship construction.[30] The number of seamen authorized for the Spanish-American was not adequate to man the new battleships Congress authorized during hostilities, much less those built during the Venezuelan Crisis to intimidate Germany or the new dreadnoughts. The older battleships had to be laid up, and there was not enough manpower to maintain a nucleus crew system (40% of normal completement) to keep the vessels

readily deployable as Fisher had introduced in England.[31] Fisher's option of discarding the oldest ships was also not exercised, rather all the American predreadnought battleships were extensively modernized after the return of the Great White Fleet.[32] The situation became almost absurd as when the officers of the Nebraska were left to raise their own crew, or when battleships were stripped of their crews to pull an armored cruiser out of reserve to react to some new diplomatic crisis.[33]

The Navy's policy on the deployment of its ships further contributed to the unpreparedness of the fleet. The general view was that fewer ships with intensely drilled crews could overmatch conscripts or reservists. That view in itself was sound, but the intensive training of the battlefleet led to a more rapid depreciation of a comparatively limited number of assets. The Navy held Summer Exercises off Virginia, and Winter Exercise in the Caribbean, besides finding time for a major overseas deployment most years.[34] Normally, these procedures meant an increase of time in the yards for refits and repairs, but, during prolonged deployments such as the World Cruise or the Occupation of Vera Cruz, the American battlefleet rapidly began to notice its high mileage.[35] The intensive gunnery drill which Sims introduced also wore out the short-lived main battery guns so quickly that at one point the Navy had to consider the abolition of target practice altogether.[36]

The deficiencies in technology and operations were severe, but the gravest problems lay in the Navy's strategic functions. Because of the vagaries of American political leadership, the General Board was essentially the only naval policy and/or strategy making apparatus, and the Board itself recognized that the unofficial 1903 Program was no more than a sketch.[37] The Board was aware of the inbalance of the fleet, but because of its particularly strong attachment to the Capital Ship strategy it acquiesced in the maintenance of the battlefleet at all costs. This accorded with the Mahanian view of the mission of the Navy and the nature of the strategic threats against the United States.

In the General Board's assesment, the Navy had to enforce the Monroe Doctrine, including the Roosevelt Corollary, and defend the Panama Canal which attracted trade and thus unwelcome attention to the Americas.[38] When Japan began to be seen as a threat, Asiatic Exclusion was added as a naval mission.[39] War would be caused only by economic competition, so such rising powers as Japan and Germany, were the only threats. As the economic nature of war made coalition warfare illogical, Germany would come alone across the Atlantic to fight us, or the Navy would cross the Pacific to fight Japan. The battlefleet had to be kept in the Caribbean to match the more powerful German menace, especially until the completion of the Canal.[40]

The Board's strategic vision formed the basis of the

later Two-Ocean Navy, and the current 600 Ship 'all ocean Navy,' but it did little to enhance the contemporary strategic interests of the United States. Passively waiting for a foe to come to the Caribbean abandoned any leverage in European affairs, and left the Pacific temptingly unguarded.[41] The only answer seemed to lay in deploying battlefleets to both theatres, which would require more than forty-eight battleships, enough to annoy Great Britain. This logic drove the steadily escalating ambitions of the Navy from a fleet "second to one", to "second to none," to outright maritime supremacy, to a virtual "two power standard" in the decade from 1910 to 1920.[42] These rising ambitions have been fulfilled and may have provided a useful stimulant, but they accomplished little at the time.

The faults in strategic orientation could have been redeemed in part with operational elan but this was lacking until after 1913. Since 1902 most of the Navy's war planning efforts had gone into War Plan Black against Germany.[43] Black presumed that the German Fleet would seek a base near Puerto Rico, and sought to meet the foe in decisive battle before the High Seas Fleet arrived in the Caribbean. This neatly anticipated the German strategy, Operational Plan III, which the German General Staff worked out after the Venezuelan Crisis. The hypothetical implementation of both plans probably would have resulted in overwhelming American victory as the Germans counted on

surprise and initiative which they clearly would have lacked.[44] However, the Germans shelved their plan as a fantasy for the indefinite future in 1906, while the Navy was still working on Black ten years later.[45] Wilson banned further development of plans against Germany in 1914, but when this prohibition was removed in 1917 the Navy focused its efforts for several months on a scheme for an independent American amphibious descent on Holland.[46]

The War Plan for Japan, code-named Orange, was in contrast admirably pragmatic. Orange called for the withdrawal of any Pacific forces to the west coast to be joined by the Atlantic Fleet for a slow march back across the Pacific.[47] This anticipated the actual course of World War II quite accurately. The Navy's plans for the Pacific showed an element of detachment, though. The Army wished to defend the Philippines, but the Navy would only agree if a great fortress was established. This idea foundered over disagreement over whether Manila or Subic Bay should be the site.[48] Both services seemed to ignore the recent fate of Port Arthur. During the second round of the San Francisco School Crisis with Japan in 1913, the Navy decided that war was immanent and began implementing Orange without political authorization. This contributed as much to Wilson's prohibition of continued planning as his desire to maintain non-bellicose appearances during World War I.[49]

The Navy's war plans did not extend much beyond

Orange and Black, and were operationally limited in all cases. When Fiske arrived at the Naval War College, he was shocked to discover that the main plans were merely sketches and outlines.[50] The only contingency for war with England, War Plan Red, was an outline by Mahan from the 1890s that called for a kamikaze attack on Halifax as the United States' only chance.[51] Great Britain meanwhile had determined that with a lot of luck, Canada might be defended successfully.[52] The only plan actually used was Green, against Mexico, drawn up for Wilson in 1913 and partially enacted the following year.[53]

In this Neptunian atmosphere, the Navy grew increasingly distant from the Executive Branch in the implementation of foreign policy and national strategy. The last and greatest glory had come with the World Cruise of the Great White Fleet. The Navy viewed this expedition as a generally successful test of the feasibility of Orange, great publicity, and a diplomatic coup through deterring Japanese ambitions.[54] Perhaps so, but it was also a great temptation for the Imperial Japanese Navy to repeat Tsushima against an unsupported force of capital ships far from a safe base. In any case, the Navy gained a fancy for long deployments which ceased to have any positive diplomatic value under Taft and Wilson.

What little foreign policy Taft pursued was aimed at the Open Door in China, and profits and jobs through overseas sales of naval technology. His greatest success

was the sale of two dreadnoughts to Argentina, though at the price of free access to the Navy's latest technological developments.[55] Later in 1914, the Argentines would offer these ships back to the United States at bargain prices, but the Navy was not interested, preferring newly designed ships for its money, despite the storm about to break in Europe.[56] The expansion of American interests in China required the cultivation of Germany in order to balance Japan and England.[57] Unfortunately the Navy chose to snub the Kaiser on its first European cruise and, on the next, Sims promised England America's undying support; this tended to undermine diplomatic efforts.[58] Under Wilson, the battlefleet made only the one previously mentioned and pointless cruise before being sent to Vera Cruz to rust at anchor.

The Navy imagined and acted as though it was an equal competitor in the Anglo-German Dreadnought Race, but the last opportunity to continue the post-Spanish-American War advances of the Capital Ship Strategy had been lost in 1908.[59] Although Roosevelt kept a safe distance from the Insurgent's progressive reforms, he made his own last effort for the fleet he had done so much to create. Roosevelt actively campaigned for the authorization of four dreadnoughts for 1909, the pace required to keep up with England and Germany, and for a Navy Personnel Bill to alleviate the now chronic manpower shortfall.[60] Congress would not be swayed, and authorized only two of the four

battleships.

A clearer political message could not have been sent, but the Navy determined to reef its sails and ride out the storm because the Capital Ship Strategy was the only proper course. This patience was rewarded because the European strategists had not discovered Napoleon's formula for quick and profitable victories, and because Wilson acted to reap as many benefits as possible for the United States. These were not contingencies upon which to rely.

In the spring of 1917, the resumption of unrestricted submarine warfare was based, in part, on the German government's determination that United States Navy posed no immediate threat and that it would take too long to mobilize America's other resources. The first part of this gamble was largely successful. Sims' insistence, as the American liaison to the Royal Navy, on the Allied adoption of the convoy system probably was more critical to the defeat of the U-Boat crisis than the three score destroyers he slowly extracted from the Navy's battle-fleet.[61] The Royal Navy had contained the German battle-fleet, obviating the need for the Navy to perform its primary Mahanian function, and Woodrow Wilson had banned war planning in 1914, so no alternate role had been found. Despite the significant nature of these defenses of the Navy's lack of impact, the real flaw lay in the Navy's ideology and the structure of the fleet built to conform with this faith in Sea Power.

The Navy had not wavered until almost the end. The 1916 Program, and War Emergency Program offered the Navy whatever it wanted, and it wanted more dreadnoughts despite the existing imbalance of the fleet and the perilous position of the Allies. Only reluctantly would the Navy agree to suspend work on the new battleships in order to speed the construction of four hundred destroyers.[62] As it developed these battleships would not be built at all, for after the war, England could no longer aspire to keep up having won a pyrrhic victory. The American predreadnoughts were discarded in arms tests, and the early dreadnoughts were scrapped to meet treaty limitations. In this, the fruits of Mahan's and Roosevelt's labors probably proved more useful to the nation than they had in active service.

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CHAPTER V

CONCLUSIONS

A survey of the standard diplomatic histories on the origins of the First World War finds very few references to American diplomacy. For European Powers, the United States was a very minor consideration, until after the Race to the Sea and the ensuing Shell Shortage of 1915. The vital interests of the United States had been involved in the unravelling of the European Balance of Power. A clear victory by either alliance likely would have been followed by a renewed interest in the Western Hemisphere. Mahan's fears of increasing European involvement in the Americas had been well founded at the turn of the century. The Navy was not, and should not have been, in control of American foreign policy, but should have been at least seeking strategic solutions for this obvious and dangerous contingency.

As has been seen, the United States Navy's military effectiveness and ability to project its power drastically declined from 1908 to 1917, during the peak of the international Dreadnought race. This decline cannot be attributed to a lack of funding, a lack of technological infrastructure or inventiveness, or to the Navy's misapprehension of its role in a democratic society. The implements

for a successful maritime strategy were in place, and a lack of political leadership did not account completely for their misuse. The problem was the Navy's singleminded devotion to Mahan's Theory of Sea Power in its simplest form, the Capital Ship Strategy.

Mahan, the ideologue for the growth of the fleet, was a sincere Christian who could not countenance aggression, except in the context of taking up the "white man's burden." For him, the battlefleet's essential function was changed from fighting wars to preventing them. The adoption of a strategy of deterrence called for subtle leadership to react to an unstable external environment and to maintain a credible threat. Roosevelt had such ability, when he was paying attention, but after his retirement this was absent and the Navy ceased to be credible a threat as the actions of the belligerents from 1914-1917 demonstrated.

In the absence of such political leadership, the Navy's decline may be excused, but it cannot be praised. As with many groups in the United States, the Navy was concerned more immediately with its own professionalization, particularly through the dogma Mahan provided. Still the Navy's definition of its mission was limited and the failure to heed threats that could not be contained easily was less than professional. The military services in a democracy cannot be autonomous of the government, but in taking the free reins that were available, the Navy was

not fulfilling its duty to the nation. The national interest required more than a second-rank military status regardless of the shift in popular opinion in the United States that turned away from international interests after the burst of empire-building in the 1890s.

It should have been clear that the Capital ship Strategy was not working, and that it was causing the nation to fall further behind. In the New Navy's search for identity and authority, continuity became a higher goal than immediate effectiveness. The greatest failure was the failure to look for alternatives. Japan, and Italy after a fashion, made Sea Power work to advance their interests in a combination with mercenary diplomacy. The United States did not do so until late. The Navy could not have forced an active diplomacy on an unwilling executive, but withdrawing into itself was not a justifiable response. Another Roosevelt could have used the fleet that was built effectively, but failing that all the other significant strategic options--guerre de course, fortress fleet, or fleet-in-being were available to the Navy. The United States had the original lead in submarine technology for a modern guerre de course approach. Similarly, a small battleship policy could have made the coasts completely invulnerable; there were several attractive "pocket battleship" designs floating around before the First World War. The best strategy of all might have been a potent fleet of a half dozen battlecruisers the

match for those built by England's "Splendid Cats", Japan's Kongos, or Germany's Derflingers. Any of these options would have been superior to the very unreachable ideal that was sought.

World War I demonstrated both the failure of the Great Power's battlefleets as strategic deterrents and their ineffectiveness as a war-winning force. According to Linton F. Brooks in Proceedings' 1987 Prize Essay, "[it] is the business of strategists to hedge against similar surprises." The leadership of the United States Navy would not hedge after the surprise had been revealed in 1914. Extreme pressure from the Allies and the Executive was required to force the Navy to hedge in 1917; indeed, there would not be a thorough rethinking of American naval strategy until the American battlefleet was resting in the mud at Pearl Harbor.

Unrealized victories always have been a common topic for military histories, unrealized defeats have been somewhat less so. The rise of American Sea Power in the early twentieth century came more from not having to fight a naval war, even one of the two wars for which the Navy deemed itself prepared, than from the conscious actions of any of those key players who justly have become luminaries of American naval biography. They mistakenly believed that superior weapons were the ultimate determinant of victory, an error that has become a common one in modern American military history. The Navy's leaders consciously rejected

this "materialist" fallacy, but did not realize that this was, in fact, the policy they were executing. There proved to be few unpleasant consequences and the peril was not mortal, as the United States probably was essentially immune to foreign threats. However, the naval policy of the United States clearly does not merit the praise it has received from previous commentators.

Mahan has come off rather badly in the main body of this text, somewhat unjustly. As he wrote enough to cover almost any contingency, it seemed proper to judge Mahan by his actions rather than just by his writings. Mahan certainly did not disavow the simplistic interpretation given to his theories. In his career, Mahan launched campaigns for the acquisition of the Philippines, against the Dreadnought, and always for the expansion of the United States Navy. He did complain about the Navy's cruising policy, intervene in the internecine struggles over re-organization, or start any campaigns for a balanced fleet. As Vagts has indicated, it can be doubted whether Mahan had a better conscious understanding of his theories than did Admiral Tirpitz. However, Mahan also devoted himself very actively to popularizing the Navy with the American people. Although Mahan did not read Clausewitz until late in his life, his work taken as a whole would seem to indicate a more advanced understanding of strategy than the mere adaptation of the operational focus of Jomini as The Influence of Sea Power on History would indicate.

Mahan's role as a public figure showed that he had at least an intuitive understanding of Clausewitz's 'remarkable trinity' of war consisting of political objective, operational instruments, and popular passions. Moreover, the motive behind his theorizing, the transition from sail to steam, shows that Mahan was not unaware of the impact of a vital fourth element--technology. Mahan's error here, demonstrated in his desire to retain predreadnoughts as the capital ship, was that he assumed that there had been a movement to a new era of technology, not to an era of rapid and almost constant technological change. This was an insight not widely made until after his death. Mahan's faults and errors were numerous and serious, but his overall contribution to the United States Navy make him worthy of the most exalted position he holds therein.

The applicability of this study to contemporary issues is somewhat limited, for conditions have changed. The United States is now Mistress of the Seas, and Great Britain, the most successful maritime empire in history, used a similar approach, often called a "Bluewater" strategy. This may be the best approach once hegemony is achieved; but a Capital Ship Strategy does not seem especially fitting as a means for achieving global command of the seas. This would suggest that building a couple of aircraft carriers is not an especially prudent step for the Russians. It is not, however, clear that being a land power, Russia envisions Sea Power in basically the same

manner that the United States, a maritime power, does. Any relevance to the debates over big versus small aircraft carriers or high-tech versus low-tech submarines for under the Arctic ice would be groping. However, this study would appear to indicate that, historically, the preparedness of available ships seems to have had more utility than the availability of more ships.

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APPENDIX A

HISTORIOGRAPIC ESSAY

American naval historians almost universally have praised the military effectiveness of the naval policies of the United States in the early Twentieth Century. Diplomatic historians of left-of-center schools, begining with William Appleman Williams have criticized the "militaristic" and "imperialistic" intentions of this policy, but they have not questioned its efficiency. Since the late 1960s several naval historians have cast serious doubt on Mahan's assertion that American naval policy before the Civil War was a complete failure. However, historians rarely have examined pre-World War I naval policies from a strategic viewpoint. Walter Millis probably came the closest in his Arms and Men, which is a fine synopsis, but Millis' interest was primarily institutional.

George T. Davis, Harold and Margret Sprout, and, indirectly, Samuel Eliot Morison writing in the 1940s essentially defined the interpretation of American dreadnought policy in the early twentieth century. The Sprouts are noted as the primary Mahanists in American naval history, and Margret's article on Mahan in Makers of Modern Strategy was largely responsible for his first rehabilitation within the Navy after World War II. Their books,

The Rise of American Naval Power and Towards a New Order of Sea Power, are the Navy's standard introductory texts. George T. Davis' A Navy Second to None is a more general book, which has generally received less renown. Bernard Brodie was generally in accord with the Mahanists with a particular advocacy for the new capital ship, the aircraft carrier. Morison's contribution was more subtle, he took a carefully balanced view of the origins of the modern Navy, but his title, The Two Ocean Navy for the semi-official history of the Navy in the Second World War, was an open and strong endorsement of the Mahanian interpretation of American naval history.

The Mahanian interpretation maintained that the gradual expansion of the dreadnought battlefleet was a successful part of the continuous process by which the post-Mahan Navy rose to global command of the sea. In this model Tracy began the battlefleet, the Spanish-American War made the United States a naval power, Great Britain was forced to grant co-equal status to the United States at the Washington Naval Conference, and sometime during World War II, the United States became mistress of the seas. This argument avoids the virtually non-existent role of the American battlefleet in the First World War and undervalued the extent to which the unimpaired industrial potential of the United States forced England's concessions at the Conference. To move into the realm of counterfactual argument, strategy is essentially a subject of perceptions,

the quick victory that most experts predicted before World War I would have been extremely inimical to American interests and would have posed a threat that the Navy was unprepared to contain. Given that the Navy was ineffective because of the capital ship dogma, and that American advances were the exploitation of seemingly fortuitous European weakness then the neat progression of the Mahanian school does not provide a satisfactory explanation of this period of American naval history.

Much of the praise for Navy in the 1940s, can be attributed, beyond its victory, to its apparent prediction of eventual war with Germany, and Japan in the early decades of the twentieth century, and its Cassandraish attempts to prepare the nation. This point of view is particularly apparent in books like Gordon C. O'Gara Theodore Roosevelt and the Rise of the Modern Navy, and Outien J. Clinard's The Influence of Japan on American Naval Power. The war with Germany seems to have been devoid of economic competition as a cause, and there were at least some elements of self-fulfilling prophecy in the war with Japan.

Elting E. Morison began a worthy tradition in his biography of William S. Sims in 1942. Morison became overly sympathetic to Sims, but this book is still the best introduction available on American naval history of the period. Paolo Coletta, Benjamin Cooling, and Richard Spector continued the line of wide-ranging biographies in

their works on Bradley Fiske, Benjamin F. Tracy and George Dewey respectively. In England, Peter Padfield's biography of Percy Scott was somewhat general, but Richard Hough provide a solid synthesis of the many works on Jackie Fisher in his biography.

The 1950s saw military history turn towards institutional studies. William Braisted works, The United States Navy in the Pacific 1897-1909, 1909-1921, broke new ground in linking military and foreign policy, which was followed by J.A.S. Grenville's extension into war plans. This work has been continued brilliantly by Spector, Holger Herwig, and Donald Trask. Strictly institutional histories of the Navy began on a negative note with Vincent Davis' Admiral's Lobby and Peter Karsten's The Naval Aristocracy. The criticism was related to the United States involvement in Vietnam, but these books did open up the study of sociological factors. James Abrahamson's America Arms for a New Century and Richard Challener's Admirals, Generals, and American Foreign Policy may be a little uncritical in response, but, on the whole, present a much more balanced picture. Less broad, but interesting works have included Armin Rappaport's The Navy League and Fredrick Harrod's Manning the New Navy.

The Vietnam Era also, and almost paradoxically, spawned a buffish fascination with the technology of war. Siegfried Breyer, Richard Hough and William McMahaon produced by far the best works of this genre in their works

on Dreadnoughts. These fell far short of Oscar Parkes' awesome tome British Battleships from Warrior to Vanguard. This seemingly insurmountable challenge recently has been answered by Norman Friedman's impeccable series on American design histories. Ivan Musicant, John Reilly, and Robert Scheina have supported this endeavor ably on armored cruisers and predreadnought battleships.

William Livezey's Mahan on Sea Power has remained the standard work on Mahan despite its laudatory tone. It replaced Captain Puleston's earlier biographer which was felt to be overly negative, apparently the least criticism was deemed inappropriate. Robert Seager's biography appended to Mahan's letters is an excellent "warts and all" approach which does not denigrate Mahan and which hopefully will replace Livezey.

Naval theory sometimes does not appear to have advanced at all since Mahan: today's "Maritime Strategy" which calls for the Navy to descend immediately upon Murmansk and Vladivostok to contain or destroy the Red Navy is unadulterated Mahan. Actually, a large amount of excellent work has been done. Herbert Rosinski wrote several devastating critiques of Imperial German Naval Policy in the 1930s. After World War II, Alfred Vagts was unrestrained in his contempt for Mahan's inattention to combined operations, Henry Eccles was equally effective, if more restrained, in noting Mahan's inattention to logistics and technology. The best single volume on modern

naval theory is Clark G. Reynolds' Command of the Sea which fills in the prophet's sins of ommission and commission. Many fine articles can also be found by our current generation of strategists in the Naval War College Review.

A definitive history of the United States Navy during the battleship era (1880-1921 or 1941) has not yet emerged; there is nothing to match Arthur J. Marder's Anatomy of British Sea Power and From Dreadnought to the Scapa Flow. This can be attributed largely to the lack of major controversies in American naval history of the period. The Mahanian interpretation of early American naval history has produced a major revision spearheaded by Paul Schroder, and William Still. Marder had to answer charges that British naval policy had unreasonably provoked Germany in the still-smoldering question of war-guilt. There has been a similar question over American "imperialism" in Latin America, but that has not touched the question of overall military effectiveness. Whether this question has any more than historical interest is debatable, but it may be hoped that the "New" military historians will press their revision on towards the present.

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