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EUROPEAN NAVAL EXPANSION AND MAHAN, 1889-1906

Much has been written about the influence that Alfred Thayer Mahan had upon naval policy and ship construction of major maritime powers. The author postulates that Mahan's writings largely substantiated policies and strategies already conceived, especially in England and Germany. He reasons that Mahan's greatest influence was with Germany who, at the turn of the century, was in the throes of building an overseas empire.

An article prepared

by

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Beginning in the latter part of the 19th century, there occurred in Europe an unprecedented expansion in naval forces. The new European naval expansion took the form of an uncritical demand for seapower and sparked the greatest warship building boom in history. A comparison of Europe's fleets in 1900 and 1914 graphically illustrates the expansion which took place.[1]

The impetus for this phenomenal expansion was closely rooted in the tenor of the time—Social Darwinism, imperialism, and militarism. To be great, a state had to have a colonial empire; and to have a colonial empire, it had to

EFFECTIVE FIGHTING SHIPS, COMPLETED—1900

	Great Britain	France	Russia	Germany
Battleships	45	33	17	12
Cruisers	126	38	14	20
Torpedo-Gunboats	34	21	9	4
	205	92	40	36

EFFECTIVE FIGHTING SHIPS, COMPLETED—1914

	Great Britain	France	Germany	Russia	Austria-Hungary
Battleships	68	21	37	8	11
Cruisers	110	30	48	14	7
Destroyers	218	83	142	105	19
Torpedo-Boats	70	153	47	25	58
Submarines	76	70	27	25	10
	542	357	301	177	105

have a great battle fleet, whether or not the state could afford or even use it.

Such reasoning found considerable inspiration in *The Influence of Sea Power upon History* published in 1890 by an American naval officer, Alfred Thayer Mahan. According to Mahan, seapower had three inseparable links: internal development and production, peaceful shipping, and overseas colonies. For Mahan, an essential element of a successful naval policy was the maintenance of naval stations in the distant parts of the world so that armed shipping could follow the vessels of commerce. "Colonies attached to the mother-country afford, therefore, the surest means of supporting abroad the sea power of a country."[2]

The fact that Mahan was writing during the era of naval expansion in Europe, coupled with the adoption of many European nations of a rationale similar to that of Mahan, has left many historians in doubt as to the exact role that the teachings of Mahan played in initiating and stimulating European naval expansion. An excellent example of the somewhat widespread confusion is the conclusion reached by Capt. Russell Grenfell, R.N.: "Whatever may have been the influences leading to a possible war between Germany and France, the conclusion cannot be avoided that the publication of Mahan's books on sea power played an important part in bringing on the war between Germany and Britain."[3] Even so eminent a scholar as Charles C. Taylor has written: "... careful examination of the works of distinguished writers on the subject leads irresistibly to the conclusion that Mahan's teachings were primarily responsible for the transformation which took place in the naval policy of Germany shortly after the publication of the Sea Power series."[4] Both of these authors are rather typical in that they emphasized the supposed influence of Mahan on European naval expansion but did not differentiate between Mahan's writing serving as a catalyst and for justification, as opposed to being responsible for the initiation of the growth of navies. The period of naval expansion between 1889, when the British two-power formula was adopted, and 1906 is an era of vibrant naval policy and construction that does shed light on Mahan's influence on naval policies of the time. By 1906 the stage was set, and the great powers could do little to halt the expansion in naval forces even when they tried to do so in 1912.

Great Britain and Germany were the principal antagonists in the dramatic pre-World War I naval expansion. France was of interest only because the French *Jeune École* exemplified the strategic and tactical confusion prevalent in European naval circles at the turn of the last century.

The industrial revolution had a great effect on armies, but it had an even greater effect on navies. The introduction in the middle decades of the 19th century of iron ships, armor, steam, big guns, and torpedoes had revolutionary consequences on naval strategy and tactics. The high point of the resulting strategical and tactical confusion was reached in the 1880's when the French *Jeune École* and its disciples in other states argued that the new torpedo boats had made battleships obsolete. It was maintained that the wars of the mid-19th century had shown the command of the sea to be almost useless.

At the height of the torpedo-boat craze, Germany, Russia, and Austria-Hungary terminated battleship construction while the British Admiralty felt obligated to apologize to Parliament for completing those battleships already under construction.[5] In 1886 the House of Commons was told that the battleships being built might be the last to be added to the Royal Navy. In the same year, Admiral Théophile Aube, the leader of the *Jeune École* and the French Minister of Marine, stopped all

French construction of battleships and put the money into torpedo boats and cruiser construction.[6]

The decline, particularly in Great Britain and Germany, of the doctrines of the *Jeune École* may be dated by two events: the British Naval Defense Act of 1889 and the publication in 1890 of *The Influence of Sea Power upon History*. Of these two events, the enactment by the British of a Naval Defense Act in 1889 is the more significant benchmark for the decline of the theories advocated by *Jeune École*. The Naval Defense Act appropriated large sums of money for the purpose of raising the British fleet to a two-power standard of equality with the combined fleets of Russia and France. The other European powers soon followed suit, and the race was on. France, for example, attempted to establish and maintain a standard equal to the Triple Alliance (Germany, Italy, and Austria-Hungary).[7]

The theories presented in *The Influence of Sea Power upon History*, when it first appeared in 1890, also signaled the decline of the doctrine of the *Jeune École*. Mahan argued that a state had to have a large fleet in order to have a successful naval policy, and the acceptance of this theory meant the rejection of the doctrine of the *Jeune École*. It was the British Naval Act of 1889, however, and not the publication of *The Influence of Sea Power upon History* which started the naval race in Europe. Mahan was not the instigator of the naval race; but as will be seen, his theories coincided with those prevalent in Europe at the time; and, therefore, the Europeans later used his writings to justify their expansion of naval forces.

In 1890 France was the second greatest naval power in the world, and because of this, one would naturally have expected Mahan's thesis to have attracted some attention in that country. While this was the case, the theories presented in *The Influence of Sea Power upon History* never attained the popularity among French political and military leaders that they were destined to achieve in Britain and Germany. This assertion can be justified by comparing the types of ships completed by France, Britain, and Germany between 1900 and 1914. Because Mahan's theories were never as popular in France as they were in Great Britain and Germany, attention will be paid to the factors behind the expansion of British and German naval forces after 1889.

A number of interrelated factors led to the British adoption of the two-power standard embodied in the Naval Defense Act of 1889. In 1888 there were six great powers in Europe. Three were in one camp—the Triple Alliance: Germany, Italy, and Austria Hungary—two in another—France and Russia—and England stood aloof, though splendid isolation was more a principle than a commanding policy. In essence, Britain's policy rested on the time-honored maxims of naval supremacy and balance-of-power. With an eye to the increasing cordiality between Russia and France, the first maxim was defined in 1889 by the Two-Power Standard. Under this policy, the strength of the British Navy was to be elevated to and maintained at a level stronger than the combined strength of the two strongest continental naval powers—at the time, Russia and France.

In the decade after 1889, the rapprochement between Russia and France was an ever-present reason for English naval expansion because of the strategic problems it caused the Royal Navy. The October 1893 visit of the Russian fleet to Toulon was followed by a decision to establish permanently a Russian squadron in the Mediterranean. This move threatened to upset the whole world balance of seapower and checkmate England in all parts of the world. At the time the Royal Navy was only slightly larger than the combined fleets of France and Russia. So far as the

Mediterranean was concerned, the French force outnumbered the British squadron; and, in addition, the fine French base at Toulon was far superior to the British base at Gibraltar. With the establishment of a Russian squadron in the Mediterranean, the British squadron could hardly be expected to hold its own against the combined fleets and certainly could not prevent the Russian Black Sea Fleet from blasting through the Dardanelles Strait and entering the Mediterranean.

By the second maxim of foreign policy, the balance of power, England meant to oppose at once, by diplomacy or by war, any continental power so strong and so potentially hostile as to threaten her security through a domination of the European Continent. Given the relatively small size and strength of the British Army, the survival of this maxim was also dependent on a strong navy.

To ensure her security in the face of such threats, England once again turned to the two-power standard. This two-power standard of naval strength, which was to dominate British policy between 1889 and 1904, was as old as the time of the Earl of Chatham (1770) and was rediscovered by Cobden and others after the Crimean War. It was officially adopted by England on 7 March 1889. On that day Lord George Hamilton, the First Sea Lord, concluded that the idea underlying the speeches of all first sea lords and prime ministers had been "that our establishment should be on such a scale that it should at least be equal to the naval strength of any two other countries."[8]

Along with matters of security, throughout the ages trade protection had been a *raison d'etre* for British seapower. In the late 19th century, this factor assumed crucial importance because of the increasing need to import foodstuffs and the materials needed for industry. In order to maintain her industries, feed her rapidly growing population, and equip her armies, it was imperative for England to keep her trade lanes open.[9]

A final factor to be considered in an examination of British naval expansion is the role of the armaments manufacturers. It is impossible to measure this factor in any quantitative manner, but it must be mentioned because of the importance attached to it by some writers when attempting to ascertain the causes for World War I. It has already been noted that the drive for imperialist gains and the needs of national and imperial defense were the major motivating forces behind English naval expansion at the turn of the century. Therefore, armament manufacturers were in no sense the originators of English naval expansion, but they certainly encouraged and propagated the idea that Great Britain needed to increase its naval forces. "They supplied one more basic motive, the desire for gain. So far as the origins of pre-war English navalism go, though not the prime factor, the industry played a prominent secondary role."[10]

From the discussion thus far, we see that British naval expansion at the turn of the century was both offensive and defensive in character. The age was dominated by imperialist thought; and for Great Britain, a strong navy was the only way to ensure herself that she would reap her share of the fruits to be derived from territorial expansion in non-European areas. A consequence of this race for overseas trade, raw materials, and empire was an increasing embroilment of the European nations. For example, as Germany increased the size of its fleet and concentrated it in home waters, British observers began to wonder as to the place of the German fleet in future German foreign policy. In England, as elsewhere, the increase in the size of the German fleet led to increasing concern for the needs of national and imperial defense just as the increase in the size of the English fleet

prompted Germany and other nations to expand their navies.

English naval expansion was also influenced in its later stages by the young and ardent reformers who began to crystallize around Adm. Sir John Fisher after 1899. In 1904-1905, the original two-power standard was revised.[11] The revised standard, a product of Fisher's return to the Admiralty, called for an additional 10 percent margin. England was to maintain a superiority in battleships of at least 10 percent over each of the most likely combinations—Germany and Russia, and France and Russia.[12]

As we have seen, by the time Mahan's *The Influence of Sea Power upon History* first appeared in 1890, the British Admiralty through the Naval Defense Act of 1889 was already fully engaged in an augmented and accelerated shipbuilding program. The program was begun in the spring of 1889; but as early as December 1888, the *London Times* had declared: "A new era of naval rivalry seems to have begun."[13] In support of his naval plan, Lord Hamilton, Spencer's predecessor, called attention to the building programs of the leading powers of Europe and concluded that England must choose between increased naval expenditure and decreased security. The British Parliament voted the increase.

From the above, it seems impossible to conclude other than that Mahan's writing played no role in initiating the pre-World War I European naval expansion which began with Britain's adoption of the Naval Defense Act of 1889. The only book that Mahan published before 1890 was a work entitled *The Gulf and Inland Waters*, and nothing in that text foreshadows the books on seapower. Furthermore, there is no evidence in the various biographies of Mahan or the innumerable works dealing with European naval expansion to suggest that any important European naval officers attended the lectures of Mahan before 1890 and transported his gospel of naval power to Great Britain or the Continent. This conclusion is further strengthened by the fact that the exchange of naval officers for study between the United States and Europe was not a common practice before World War I. The *History of the United States Naval War College*, prepared at the Naval War College, states that 1894 was the first year that foreign students attended the 4-month course.[14]

Mahan's role in the vast array of factors promoting British naval expansion was the role of a catalytic agent. By 1890 there was already beginning that renewed competition in navies and colonial possessions which was to play such a crucial and tragic role in the international relations of the next 30 years. The role of Mahan, through *The Influence of Sea Power upon History* and through his numerous later works, was to supply the justification for British policies already adopted or contemplated. In 1890 and 1891, when the British Government was attempting to justify the decisions that were made in 1888 and 1889, Mahan's clear exposition was welcomed as sound history and more. It became almost a campaign handbook for the advocates of a two-power standard for the British fleet. In this regard Mahan's work was a real boon to the advocates of increased British seapower. While clarifying their own ideas, it helped them to answer the arguments of the many army officers and civilians who were pressing for an elaborate system of defenses along the British coast.

Germany formally entered the European naval race when the Reichstag passed the first Navy Law in April 1898; but Wilhelm II, the grandson of Queen Victoria, had been fascinated by navies, the Royal Navy in particular, since his childhood. In his frequent boyhood trips to England, he had spent considerable time at the Portsmouth Dockyard and on board British ships. The

fact that these early impressions left their mark on him is aptly demonstrated by the entire chapter he devoted to "Naval Memories" in *My Early Life*.[15] Wilhelm II later commented: "When I came to the throne I attempted to reproduce on a scale commensurate with the resources and interests of my country that [the Royal Navy] which made such a deep impression on my mind when I saw it as a young man in England."[16]

Wilhelm's early interest in naval affairs was later to mesh well with the new imperialism of the late 19th century. For the most part, opportunities for expansion on the Continent of Europe were exhausted. Reflecting on this, Wilhelm II came to feel that the future of Germany lay in overseas colonialization. While Britain remained supreme at sea, however, any empire which Germany could found across the sea must be held in fee of her. Wilhelm II concluded, "the trident must be in our fist."[17]

"Our German Empire," Wilhelm II said in January 1896, "has become a world-empire. Thousands of German people live in all parts of the earth, and German products, German knowledge, and German industry go out across the ocean. To you falls the earnest duty of binding firmly this greater Germany to the Germany at home." "Everyday," he said at Potsdam in December 1902, "shows afresh that a prosperous development of the country without a corresponding operation of its sea power is unthinkable."[18]

As Wilhelm II suggested, Germany felt compelled by economic necessities, population increases, and the need for outlets for her enterprise and commerce to expand beyond the boundaries of her own frontiers. These reasons are very similar to those expressed by the British to justify their expansion; and the similarity is very significant to this study since it indicates that naval expansion in general, and in Germany in particular, was not the product of any one man, but rather reflected the tenor of the time—imperialism, militarism, and Social Darwinism. The idea that a European nation had a right to colonies and needed a navy to protect them was widely accepted in Europe. As late as 1909, the Englishman John Leyland wrote in *Brassey's Naval Annual* that German naval policy, "... is based upon the ground of national necessity, and upon those unquenchable impulses which have driven other countries in the same circumstances to seek outlets for their energies and fields for their enterprise in countries outside their own ..."[19]

German naval expansion also received a boost from the political events which took place in South Africa in the middle of the 1890's. These events proved to be quite significant since they awakened the German people to the importance of a strong navy. On 3 January 1896, Emperor Wilhelm II sent a telegram to President Kruger congratulating him on his suppression of the Jameson raid. The result was a deterioration of Anglo-German relations while Germany remained in a position where she could do nothing to aid the Boers. Yet from the point of view of German naval enthusiasts, the telegram had very useful consequences. The inability of Germany to influence the South African situation was taken as an object lesson in the importance of seapower. The mobilization of a British flying squadron drove this lesson home. After 1896, the German Government used the hostility toward England expressed during the South African incident as a fulcrum in its push for a shipbuilding program.[20]

Another factor of some importance in explaining German naval expansion was the failure of the British Government in 1897 to renew the Anglo-German commercial treaties of 1862 and 1865. Instead, the British sought a new treaty in terms of the "most-

favored nation." The Emperor immediately visualized prospective ruin for German trade and concluded that Germany must build a strong fleet without delay.[21]

While the accession of Wilhelm II to the throne on 15 June 1888 promised the opening of a new era for the German fleet, the German Navy was not the arbitrary creation of one man. The enlargement and modernization of the German fleet prior to World War I can be directly traced to two men, Wilhelm II and his Naval Minister, Adm. Alfred von Tirpitz. Through the efforts of these two men and over the protests of the Reichstag and the Bundesrat, Germany was able to attain a position of naval strength and potency among the maritime nations.

Von Tirpitz had made up his mind in regard to the battleship-cruiser controversy as early as 1891. In that year he had drawn up a memorandum emphasizing the importance of developing a battle fleet and a system of tactics suitable for naval warfare on the open sea. In 1892 Von Tirpitz was called to the *Oberkomando* in Berlin. It was here that he composed the document which "converted the Emperor to the plan of building a battlefleet."[22]

After the appointment of Alfred von Tirpitz as Minister of Marine in January 1897, German naval expansion entered a new and vitalized phase. He knew the German limitations thoroughly and had the ability to present both clearly and effectively his arguments for a battleship fleet. Furthermore, he appears to have been one of the best politicians in the German Navy at the time. In the end much of the credit for the German fleet of 1914 must revert to this man.

In April 1898 the Reichstag passed the first Navy Law affecting the strength of the modern Imperial German Navy. This law was largely the consequence of the South African incident and the appointment of Von Tirpitz. The crucial importance of the 1898 German Navy Law was that it put an end to uncertainty and instability and to the building of vessels for the single purpose of coast defense. The battleship-cruiser controversy was over with Germany deciding to follow England's lead in the construction of battleships.

The 1898 Navy Law embodied three of Von Tirpitz's principles: an automatic regulation of the obsolescence and replacement of ships; the principle of fixing a definite establishment of ships, officers, and men, to be reached and maintained, and with this a legal enactment of the conditions in which ships are to be kept in commission; and the principle of risk. Von Tirpitz's risk theory was described in a memorandum accompanying the proposed Fleet Law of 1900:

> To protect Germany's sea-trade and colonies, in the existing circumstances there is only one means: Germany must have a battle-fleet so strong that, even for the adversary with the greatest sea-power, a war against it would involve such dangers as to imperil his position in the world.
>
> For this purpose, it is not absolutely necessary that the German battle-fleet should be as strong as that of the greatest naval power, because a great naval power will not, as a rule, be in a position to concentrate all his striking forces against us. But even if it should succeed in meeting us with considerable superiority, the defeat of a strong German fleet would so substantially weaken the enemy that, in spite of a victory he might have obtained, his own position in the world would no longer be secured by an adequate fleet.[23]

Again and again, Von Tirpitz emphasized the political bargaining power a

fleet would bring to Germany. He maintained that Britain would make concessions to Germany rather than risk a war that would leave her too weak to face the Franco-Russian alliance. Conversely, if war broke out between Britain and Russia and France, an enlarged navy would leave Germany with the balance of naval power and thus increase her alliance value.

On 14 June 1900, Von Tirpitz submitted a new program of naval expansion to the Reichstag. According to this New Navy Law, by 1920 the German fleet was to consist of 38 battleships, 14 armored cruisers, 34 third-class cruisers, and 96 destroyers. The Reichstag passed additional Fleet Laws after 1900, but the 1900 Navy Law remained Von Tirpitz's major achievement. Later British attempts to halt the naval race were always answered by the bland statement that the German Government was legally committed to an expansion of her navy.[24]

Of all the European states, it was in Germany that Mahan was destined to have the greatest influence. The German Emperor found many of his vague concepts and aspirations crystallized on the pages of *The Influence of Sea Power upon History*. On 26 May 1894, Wilhelm II wrote: "I am just now, not reading but devouring Mahan's book; and am trying to learn it by heart. It is a first-class book and classical in all points. It is on board all my ships and constantly quoted by my Captains and officers."[25]

It was evidence such as this which led Charles C. Taylor to conclude that Mahan's teachings were primarily responsible for the change in German naval policy which occurred under Wilhelm II.[26] Given the early interest of Wilhelm II in naval affairs and the important role in German naval expansion played by Admiral Von Tirpitz, however, it would appear that writers, such as C.C. Taylor, tend to overemphasize the influence of Mahan. Although Mahan may have crystallized the ideas of Wilhelm II and Von Tirpitz and certainly furnished fodder for propaganda guns promoting German naval expansion, both Wilhelm II and Von Tirpitz had been contemplating a change in naval policy for several years before 1890. The same factors which prompted Great Britain to expand its naval forces were also at work on Germany.

It is possible that Mahan may have influenced Von Tirpitz more than he influenced Wilhelm II, but the exact amount of influence is difficult to measure. The tendency has been for writers to make rather bold statements concerning Mahan's influence on Von Tirpitz without providing much in the way of substantiating data. For example, concerning Von Tirpitz's 1891 memorandum, Hurd and Castle state that its fundamental principles were a reversal of those of his predecessor, "for it was based on the idea, probably adopted from Mahan, that battleships alone are the decisive factors in naval warfare."[27] Yet they give no evidence to suggest why the reader should conclude that Mahan's publication influenced Von Tirpitz's rejection of cruiser warfare.

In his autobiography *My Memoirs*, Von Tirpitz asserted that he reached his tactical and strategic conclusions independently of Mahan. "Whilst we were discovering these things quite empirically on the small practice-ground by Kiel Bay, the American Admiral Mahan was simultaneously evolving them theoretically from history, and when I made the acquaintance of his book later, I drew his attention to this extraordinary coincidence."[28] Exactly where the truth lies is almost impossible to ascertain. While it is quite possible that Von Tirpitz reached his conclusions independently of the writings of Mahan, it is difficult to accept *My Memoirs* wholeheartedly because of the sometimes exaggerated nature of the analysis.

In retrospect, Von Tirpitz had a tendency to occasionally exaggerate his powers of self-perception and his role in the whole process of German naval expansion. At the same time, no concrete evidence has come to light which definitely proves that Von Tirpitz took any or all his ideas from Admiral Mahan.

At any rate, it is impossible to conclude other than that Mahan influenced German naval expansion much more than he affected the growth of the Royal Navy after 1888. The publication in 1890 of *The Influence of Sea Power upon History* stirred Wilhelm's lifelong interest in navies and added strength to the efforts begun in 1888 to increase and modernize the German Navy. Throughout the decade from 1890 to 1900, Mahan's principles were cited again and again in support of German naval expansion, especially by the German Navy League. Mahan's clear, concise presentation had a definite influence on the shipbuilding programs of both England and Germany; but it had a greater influence on German naval expansion, probably because Germany lacked the strong naval tradition which England had cultivated for over 300 years.

Mahan's weakness as a historian lay in his critical acceptance of the Social Darwinist view of international politics. At the same time, his acceptance of the popular views of international politics, race, and imperialism may partly explain the great influence he was to have in his own time.[29] His interpretation of national history, which linked seapower with national greatness and imperialism with seapower, strengthened the economic and political events which were encouraging the growth of European navies at the end of the 19th century. Accelerated naval expansion in turn fostered and supported the growth of additional imperialism which came full circle by quickening the pace of naval construction.

However, to hold Mahan's writings responsible for European naval expansion after 1888 would be to overlook other forces which would have resulted in naval expansion even in the absence of Admiral Mahan. European naval expansion at the turn of the last century had its roots in the wave of imperialism which swept over the Continent in the 1880's. To remain a great power, a state had to secure colonial possessions; and to take and hold colonies, it had to have a strong navy. In such an age the principles of Mahan were predestined to receive a warm welcome; but the age and its ideas did not originate with the publication of *The Influence of Sea Power upon History*. Admiral Mahan did not bring new ideas to England, Germany, and some of the other European countries; but the theories set forth in his writings crystallized and clarified old ideas. Moreover, his writings appeared at precisely the time the Europeans needed them to justify their naval increases.

BIOGRAPHIC SUMMARY

Capt. Ronald Bruce St. John, U.S. Army, did his undergraduate work in political science at Knox College and earned an M.A. (1969) and Ph.D. (1970) in international relations from the Graduate School of International Studies, University of Denver. His primary academic research and interest has been American politics; and he spent 1968 in Lima, Peru—under the Shell Fellowship for Research in a Developing Area—researching Peruvian foreign policy. Captain St. John is currently serving with the intelligence section, Headquarters, Military Assistance Command, Vietnam.

FOOTNOTES

1. Figures taken from *Brassey's Naval Annual* (Portsmouth, Eng.: Griffin, 1900), p. 62-80; *Brassey's Naval Annual* (London: Clowes, 1914), p. 66-83.
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3. Russell Grenfell, *Sea Power* (Garden City, N.Y.: Doubleday, Doran, 1941), p. 11.
4. Charles C. Taylor, *The Life of Admiral Mahan* (New York: George H. Doran, 1920), p. 133.
5. Theodore Ropp, "Continental Doctrines of Sea Power," Edward M. Earle, ed., *Makers of Modern Strategy* (Princeton: Princeton University Press, 1944), p. 447. This is by far the best brief description of this aspect of the problem yet available.
6. Theodore Ropp, *War in the Modern World* (Durham: Duke University Press, 1959), p. 190.
7. *Ibid.*, p. 191.
8. Quoted in Arthur J. Marder, *From the Dreadnought to Scapa Flow* (London: Oxford University Press, 1961), p. 125.
9. *Ibid.*, p. 4-6.
10. Arthur J. Marder, *The Anatomy of British Sea Power* (New York: Knopf, 1940), p. 43. See p. 24-43 for a fuller discussion of this factor of English naval expansion.
11. Marder, *Dreadnought*, p. 11-12. See p. 12 for the reforms initiated by Fisher.
12. *Ibid.*, p. 123.
13. Quoted in William D. Puleston, *Mahan* (New Haven: Yale University Press, 1939), p. 106.
14. U.S. Naval War College, *History of the United States Naval War College, 1884-1963* (Newport, R.I.: 1963), p. 4, 57.
15. Wilhelm II, *My Early Life* (London: Methuen, 1926), p. 218-228.
16. Archibald Hurd and Henry Castle, *German Sea-Power* (London: Murray, 1913), p. 98.
17. Gerald Fiennes, *Sea Power and Freedom* (New York: Putnam, 1918), p. 256-257.
18. John Leyland, "The Spirit of the German Navy Law," *Brassey's Naval Annual* (Portsmouth, Eng.: Griffin, 1913), p. 154-155.
19. John Leyland, "The Naval Expansion of Germany," *Brassey's Naval Annual* (Portsmouth, Eng.: Griffin, 1909), p. 125.
20. E.L. Woodward, *Great Britain and the German Navy* (Oxford: Clarendon Press, 1935), p. 23-24.
21. Ropp, "Continental Doctrines," p. 447.
22. Woodward, p. 23.
23. Quoted in Fiennes, p. 259.
24. Ropp, *War*, p. 194.
25. Taylor, p. 131.
26. *Ibid.*, p. 133.
27. Hurd and Castle, p. 196.
28. Alfred von Tirpitz, *My Memoirs* (New York: Dodd, Mead, 1919), v. I, p. 72.
29. Ropp, *War*, p. 191-192.