From solid shot to tomahawk: The development of American naval policy from the early republic to the present

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Present American naval policy is the result of over two centuries development. It is important to understand that naval policy developed in relation to four themes. These four themes are domestic politics, international relations, technology, and economic change.

In the early nineteenth century, political considerations, both domestic and international, resulted in a small navy designed to guard the coast or raid enemy commerce. As the century progressed, the navy grew in size and capability. The political realities of the 1880's placed a new importance upon the navy. Two coasts and new overseas possessions required a strong modern navy for protection. At the same time, USN Captain A.T. Mahan popularized sea power theory in his book The Influence of Sea Power Upon History 1660-1783.

New technologies emerging from the Industrial Revolution brought changes in ship propulsion and construction. Steam power and iron ship construction changed naval strategy, and placed new importance on overseas bases for logistical support. The Industrial Revolution changed the economy from an agrarian base to an industrial foundation. New markets for American products were sought overseas. This required a strong navy to protect commerce.

The United States emerged as the dominant naval power during the twentieth century. After World War II, America had the most powerful navy of any nation. The political realities of the Cold War forced the navy to remain large and technologically advanced. Aircraft carriers, atomic weapons, and the nuclear powered ballistic missile submarine became the backbone of American naval strategy.

The navy of the future will continue to be important. The world is more unpredictable with the end of the Cold War, and the navy will be integral to maintaining world peace and security while upholding American interests.
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Introduction

The purpose of this thesis is to examine the formation of American naval policy in relation to four themes. These themes are: domestic politics, international relations, technological change, and economic change. All are crucial to our understanding of how the United States developed the naval policy it has today. Although each of them had independent influences on naval policy, it is important to understand that it is the combined influence of these themes which bears the responsibility for creating the navy we have.

The role of domestic politics is fundamental to our understanding of American naval policy. Historically, the navy has not been viewed by the majority of the public as important. Sectionalism, party affiliation, and economic class among other factors affected public views of the navy and its role. Navies are expensive to build and maintain. People living in coastal areas, whose livelihoods are dependent upon the sea or commerce, generally supported the navy. People living in the interior who had less interest in the sea usually viewed the navy as an unnecessary expense. Only at the beginning of the twentieth century did the general public really take an interest in naval affairs. As the economy changed, Americans of all classes and regions had a stake in commerce carried over the sea. Therefore they were more willing to spend money on the navy.

America’s view of its own place in the world has influenced its naval policy. Over the past two and one quarter centuries, America’s self-perceived role in the international community has changed. The United States has historically been an isolationist country, sitting behind the insulating comfort of two great oceans. This tendency to stay aloof from
world events guided naval policy, particularly throughout the majority of the nineteenth century. The navy remained relatively small and slow to grow. By the end of the nineteenth century, America's position on two oceans and new commercial interests abroad created new interest in the navy. In one hundred years, there was a shift from a fear of having a powerful navy that may coerce a war with a European power, to a ready willingness to challenge European supremacy on the seas of the world.

Technological changes influenced naval policy. Industrialism during the nineteenth century led to innovations such as steam power and ironclading. In turn these technological advances caused changes in naval policy. Steam ships changed naval tactics and required dedicated overseas bases for support. The invention of the airplane in the twentieth century had a similar effect. With greater striking range and power, the aircraft carrier replaced the battleship as the pre-eminent capital ship. The addition of nuclear power, atomic weapons, and the ballistic missile submarine made the navy an important part of American nuclear strategy during the Cold War.

The shifts in the American economy from agrarian, through industrial, to the present information based economy also affected naval policy. During the years of the Early Republic (1789-ca.1820), the United States had a small navy composed of wooden vessels. The development of an industrial economy led to the adoption of steam power, ironclading, and eventually ships made completely of steel. The information economy has brought precision guided munitions into the naval inventory. Each of these shifts in the economic foundations of the country has caused not only technological change, but questions concerning tactics, fleet composition, and the role of the navy. Economic
evolution has also made the navy more important with each generation as the United States has ever expanding commercial interests.

In the 210 years from the ratification of the Constitution to the present, the naval policy of the United States has undergone significant changes. The navy has progressed from a small fleet of coastal defense vessels to the most powerful naval force the world has ever known. It is capable of projecting military power anywhere in the world. The task of this thesis is to give an overview of this progression from solid shot to Tomahawk missiles and to discuss the transformation through each period. It will be shown that naval policy does not develop in a vacuum, but that it is influenced by domestic and international politics, economics, and technology, all tempered by the historical experience and personalities of each time period.
Chapter 1: Command of the Sea

The Concept of Sea Power

The role of a navy is twofold: sea control and power projection. Since World War II, the United States has become the world’s leading naval power with the ability to gain control of the sea and project power to any part of the globe. Sea power has always been integral to maintaining interests worldwide. In the past, most of the world’s great powers have exercised control of the sea (with perhaps the exception of the Mongols). The Portuguese, Spanish, Dutch, French, and British all took turns as the leading sea power of their time. Even the Romans, considered a land power, needed control of the sea in order to expand.

It is not surprising that the United States became a sea power. Given America’s geographical position and economic potential, sea power is a natural extension of American foreign policy. The United States has been blessed with weak neighbors to the north and south which provide it with security from a nearby threat. With respect to the importance geography plays, USN Captain Alfred T. Mahan wrote in his famous book, The Influence of Sea Power Upon History, “It may be pointed out, in the first place, that if a nation be so situated that it is neither forced to defend itself by land nor induced to seek extension of its territory by way of the land, it has, by the very unity of its aim directed upon the sea, an advantage as compared with a people whose boundaries is continental.”¹

Weak neighbors combined with geographical isolation from the political and economic

power centers of the world, and a historical distrust of standing armies, has led the United States to rely on sea power as a chief means of power projection.

The modern United States Navy is a product of history, resources, technology, and politics which have all worked together to produce the most powerful and effective navy the world has ever seen. The history of naval development, which would culminate with the US Navy, dates back to antiquity and the development of civilization during the agricultural revolution five to ten thousand years ago.

Water covers more than seventy percent of the Earth's surface. Civilization requires water for life, agriculture, and trade. Therefore, it should be of no surprise that the first civilizations grew up around navigable rivers which also provided fertile flood plains. Civilization quickly sprang up around the Mediterranean Basin, and unsurprisingly, these civilizations, -- Minoan, Greek, Phoenician, and Roman -- would prosper based upon the trade provided by the sea.

The seas and oceans of the world are highways which have historically facilitated trade and the exchange of ideas between cultures. Most civilizations have found it easier, cheaper, and faster to trade via water routes than over land. Therefore, as trade increased between peoples, and the amount of wealth carried on ships also increased, the need for navies arose. The primary function of early navies was to patrol sea lanes and protect one's own shipping, and thereby establish what is called "command of the sea." This fact makes command of the sea important. A state that controls the sea or exercises sea power is known as a "thallasocracy". Command of the sea means that a nation has enough power afloat to impose its will on the trade routes and the coastal areas where it operates. This
means that one's opposition cannot operate successfully without permission. The sea is effectively denied to the enemy and one can operate with impunity. Thus, a thallasocracy's commercial interests will also prosper relative to its competitors.

The United States has always been interested in protecting her exports, much more so than in securing imports. Maritime historians Robert Albion and Jennie Pope wrote,

our interest and our wartime worries have centered in outgoing rather than incoming cargoes. Except in the Revolution, American cargoes have been of greater importance from the strategic standpoint, to Europe than its cargoes have been to us. This has become even more true in the twentieth century -- when our gigantic American industry has produced the military supplies vitally needed overseas -- than it was in the simpler and more self-sufficient days. In the two World Wars, our munitions and also our food supplies were indispensable to Britain and its allies. At times between 1793 and 1813, our grain was important to France and to England also, but not in the same degree. In 1812 and in the Civil War, the American industrial development was sufficient to sustain military operations without munitions from overseas.2

In her essay “Mahan: Evangelist of Sea Power” which appears in Makers of Modern Strategy, scholar Margaret Sprout says of Captain Alfred Thayer Mahan and his pioneering book, “No other single person has so directly and profoundly influenced the theory of sea power and naval strategy as Alfred Thayer Mahan.”3 The Influence of Sea Power Upon History 1660 - 1783 is perhaps the most significant work ever written on sea power and its importance. Published in 1894, Captain Mahan’s study revolutionized thinking in terms of sea power and naval strategy. The book is primarily an analysis of the


use of sea power by the British in the seventeenth and eighteenth centuries. According to historian Robert K. Massie it "codified the Briton's intuitive sense of the relationship between sea power, prosperity, and greatness." As a work of military strategy and history, *The Influence of Sea Power Upon History* is the naval equivalent of Sun Tzu's *The Art of War* and Karl von Clausewitz's *Vom Krieg*. In *Mahan on Sea Power*, William Livezey states,

In his very first lectures which dealt with the vital, natural, and human elements or conditions affecting sea power, from which were deduced certain relationships between prosperity at home, overseas trade and shipping, naval power, and colonial bases, Mahan continuously bore in mind the contemporary American situation. So frequently was the picture of his own country brought to the fore that one would have been safe in concluding, even if Mahan had not definitely stated it himself, that the whole analysis was merely an introductory historical background on which to sketch the real portrait.⁵

Although Mahan was so influential, his work was far from perfect. Sometimes he tended toward oversimplification, generalization, and vague definitions. Also, according to some naval historians, "his theories were too often accepted uncritically"⁶ by his contemporaries and popularizes. Nevertheless, no other book has had the influence on modern naval doctrine than Mahan's. Historian Paul M. Kennedy states, "Written to stimulate American interest in a larger fleet, this widely-read and oft-quoted book became

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the bible of navalists everywhere, particularly in Britain, where its author was fêted and revered." Therefore, it is to Mahan we turn when introducing concepts of sea power and how it is achieved.

**Mahan’s Six Elements of Sea Power**

According historian George T. Davis, Mahan believed “the mainspring of empires in the past lay in control of the sea. The loss of such power was accompanied by decay, and only by control of the sea could a nation grow healthy and strong.” To Mahan, there are six elements which a nation must possess if it is to become a successful sea power and establish command of the sea. These elements are: geographical position, physical conformation, extent of territory, number of population, character of the people, and character of the government.

The first element of sea power, geographical position, refers to the position of a nation vis-à-vis the sea and its neighbors. Mahan believed that if a nation is not required to defend itself or expand itself territorially by land, it will turn to the sea for these purposes. Mahan holds up England as a perfect example. England is insulated by the English Channel and the North Sea from its neighbors. Therefore, it is forced to go to sea in order to expand and also to protect itself from invasion.

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10 Ibid.
The second element of sea power crucial to Mahan's thesis is physical conformation. Regarding this feature, Margaret Sprout writes,

Physical configuration of the national domain determines in large measure the disposition of a people to seek and achieve sea power. The character of the coastline governs accessibility to the sea; good harbors imply potential strength; the character of the soil may win people away from the sea or drive them to it for a livelihood.11

The coastline is a frontier. Because the extension of the frontier is so important, Sprout says, "to any nation with a coastline, the sea is a frontier, and national power will largely be determined by the manner in which it extends that frontier."12 Mahan states,

The seaboard of a country is one of its frontiers; and the easier the access offered by the frontier to the region beyond, in this case the sea, the greater will be the tendency of a people toward intercourse with the rest of the world by it. If a country can be imagined having a long seaboard, but entirely without a harbor, such a country can have no sea trade of its own, no shipping, no navy.13

Mahan relates climate and productivity to the physical conformation necessary for a sea power. A nation with a climate which can produce a rich agricultural surplus to meet all the needs of its inhabitants will not take to the sea with as much enthusiasm as a nation where the climate is harsher and is therefore less productive. The less productive nation is more dependent on trade to meet all its needs than the more productive nation. Therefore, nations such as England and Holland were driven to the sea to make up for the lack of sufficient agricultural goods, while France could produce all the food it needed and


12 Ibid.

13 Mahan, The Influence of Sea Power Upon History, p. 35.
therefore was not as dependent upon the sea for its needs. This relationship helps explain why Britain and the Low Countries became the first centers of manufacture, producing something valuable to trade with other more agriculturally productive nations such as France.

At the time Mahan wrote his book, he considered the United States a nation like France which could produce all it needed. He stated,

> Except Alaska, the United States has no outlying possession, - no foot of ground inaccessible by land. Its contour is such as to present few points specially weak from their saliency, and all important parts of the frontiers can be readily attained, - cheaply by water, rapidly by rail. The weakest frontier, the Pacific, is far removed from the most dangerous of possible enemies. The internal resources are boundless as compared with our present needs . . . Yet should that little corner be invaded by a new commercial route through the Isthmus, the United States in her turn may have the rude awakening of those who have abandoned their share in the common birthright of all people, the sea.¹⁴

Mahan was anticipating a very real future concern which would take America in a new direction with reference to meeting its security needs. At this time, the United States was effectively a land power like France, Germany, and Russia. Mahan’s warning would be heeded once the Panama Canal was constructed. The canal was vulnerable, creating a new security problem for the United States which would drive it by necessity to acquire other bases abroad, for protection, particularly the Hawaiian Islands and Cuba.¹⁵

The third element of sea power in Mahan’s thesis concerns extent of territory. This is the last of the physical or geographical requirements that Mahan postulates for a sea

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¹⁴ Ibid., p. 42.

power. What Mahan means by extent of territory does not refer to the size of the nation in terms of land area. Rather, he is referring to the “length of its coast-line, and the character of its harbors that are to be considered.”

Mahan’s postulation here is that the length of the coast and quality of the harbors can be either “a source of strength or weakness” depending upon the size of the population relative to the size of the coastline. If a nation with a large coastline and many suitable harbors has a relatively small population, then that nation has a weakness. It does not have the population necessary to take advantage of what would be a source of immense strength. Mahan points to this as one of the sources of Southern defeat in the Civil War. Although the South had an extensive coast and excellent harbors, it did not have the population to successfully defend them.

This relationship then of extent of territory to population leads into Mahan’s fourth element: population. Mahan states,

It has been said that in respect of dimensions it is not merely the number of square miles, but the extent and character of the sea coast that is to be considered with reference to sea power; and so, in point of population, it is not only the grand total, but the number following the sea, or at least readily available for employment on ship-board and for the creation of naval material, that must be counted.

According to Mahan, a nation must have the population resources necessary to provide personnel for a navy, and reserve personnel available for supplying the logistical and other material needs of the navy. This population must be in excess of what is necessary for the other functions of society and in approximate locale to the sea. Mahan points out that the

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16 Mahan, The Influence of Sea Power Upon History, p. 43.

17 Ibid., pp. 44-45.
United States at the time had scarcely the population resource necessary to meet her needs in terms of merchant shipping and its related industries. He despaired even for the possibility of a labor reserve which would provide for the provisioning of a strong navy. He believed that the only way for the United States to meet those needs was by strengthening the commerce of the country as a whole.\textsuperscript{18} Indeed, events at the close of the nineteenth century would prove fortuitous in that matter as several major economic downturns, especially the depression of 1893, would provide the necessary excuses for extending commerce. The United States was hit by overproduction and needed markets with which to trade in order to eliminate gross surpluses of manufactured and even agricultural goods.

The fifth element in Captain Mahan's thesis on the elements of sea power concerns the more subjective, but nevertheless critical, factor of the character of the people or the national character. He believes that the character of the general population will affect whether or not it is suitable for commerce, and therefore sea power. Mahan says,

\begin{displayquote}
If sea power be really based upon a peaceful and extensive commerce, aptitude for commercial pursuits must be a distinguishing feature of the nations that have at one time or another been great upon the sea. History almost without exception affirms that this is true. Save the Romans, there is no marked instance to the contrary.
\end{displayquote}

He goes on to say, "All men seek gain and, more or less love money; but the way in which gain is sought will have a marked effect upon the commercial fortunes and the people inhabiting the country."\textsuperscript{19}

\begin{footnotes}
\textsuperscript{18} Ibid., p. 49.
\textsuperscript{19} Ibid., p. 50.
\end{footnotes}
This last statement is of utmost importance. Long-term success on the sea, and therefore long-term success as a commercial power is dependent upon the manner in which a nation approaches commerce. Mahan points to Spain and Portugal as examples of the wrong way to approach a healthy commerce. It is Mahan's opinion that Spain and Portugal were interested in gaining wealth by the sword. They desired only gold and silver from their colonies. Accordingly, they were not concerned with long-term building and investment to take advantage of the discovery of the new world. Spain continued to be a power on the sea, but Mahan points out that after the Battle of Lepanto in 1571, Spain began a long slow slide into decay as a naval and commercial power.\textsuperscript{20} The Dutch and English, on the other hand, according to Mahan, took a different, and in the long term, a more successful and prosperous route. They had greater patience than the Spaniards and the Portuguese. As Mahan points out,

They were no less bold, no less enterprising, no less patient. Indeed, they were more patient, in that they sought riches not by the sword but by labor, which is the reproach meant to be implied by the epithet; for thus they took the longest, instead of what seemed to be the shortest road to wealth. But these two peoples, radically of the same race had other qualities, no less important than those just named, which combined their surroundings to favor their development by the sea. They were by nature business-men, traders, producers, negotiators. Therefore both in their native country and abroad . . . they everywhere strove to draw out all the resources of the land, to develop and increase them.\textsuperscript{21}

According to Mahan, the British and the Dutch took the long road to wealth through investment and risk of capital in order to secure greater gains in the long run.

\textsuperscript{20} Ibid.

\textsuperscript{21} Ibid., p. 52.
The lesson that Mahan gives us is that a people which have a national stake in the long term success of an enterprise and work diligently to make it work will retain its power upon the sea in order to keep that investment and interest secure and growing. This is one place where Mahan believed that Americans had great aptitude.\footnote{Ibid., p. 58.}

The sixth and final element to sea power is what he described as the “character of the government.” Mahan stated,

The various traits of a country and its people which have so far been considered constitute the natural characteristics with which a nation, like a man, begins its career; the conduct of the government in turn corresponds to the exercise of the intelligent will-power, which, according as it is wise, energetic and persevering, or the reverse, causes success or failure in a man’s life or a nation’s history.\footnote{Ibid.}

The lesson here is that a government’s character greatly affects commerce, and therefore sea power. Margaret Sprout points out in her essay that it was Mahan’s belief that, British policy since the reign of James I has been determined to assert and maintain colonial, commercial, and naval supremacy and to adopt all measures necessary thereto. This adherence to a single line of policy was easier, Mahan believed, because the government of Britain lay in the hands of a single class -- the landed aristocracy.\footnote{M. Sprout, “Mahan,” p. 420.}

She points out that Mahan’s generalization here is of doubtful merit. She says, “More recent research would cast doubt upon Mahan’s historical generalizations concerning the influence of the landed aristocracy and would place more emphasis upon the
 Rising commercial classes.\textsuperscript{25} Mahan should have recognized that from about 1670 onward, the interests of the merchant classes represented by parliament gained more political power in Britain. This coincided with the ascendency of British naval power through the eighteenth century. However, just because Mahan's generalization with regard to the landed aristocracy is flawed, it does not mean that the general axiom is flawed. For example, Spain was a nation ruled by nobility where the interests of the merchant class took a back seat. The character of that government and the manner in which it sought wealth determined that its power upon the seas would be comparatively short lived. Britain, on the other hand, (taking into account Mahan's flawed analysis on this point) had a government in which the interests of the merchant classes were represented. Therefore the government had a stake in promoting and protecting commerce, not just treasure ships. The character of the government of Britain and The Netherlands determined that they would have a real interest and investment upon the seas, and would maintain the power to protect that investment. In point of fact, it was competition with the English which forced the decline of Dutch sea power in the late seventeenth century.

These are the six elements which make sea power according to Mahan. To summarize briefly, in order to become a sea power, a nation must have a good position geographically. There must be suitable geography and climate necessary to produce dependence upon and acceptance of the sea. It must have a fairly large extent of coastline and good harbors with the population necessary to take advantage of it. The nation must have a population of suitable size and inclination to take to the sea and support related

\textsuperscript{25}Ibid.
industries. The people must have a national character which places value in diligence and commercial enterprise. Lastly, a nation must have a government which consistently supports and encourages commerce in the interest of the individual and also the nation as a whole. These are the six elements which in his mind will determine a nation’s proclivity for sea power.

Applications of Sea Power

Command of the sea can only be secured if both tactical and strategic dimensions are obtained first. Tactical command of the sea can be won by defeating one’s adversary in a naval battle. Strategic command of the sea can be acquired by interrupting an adversary’s lines of communication so as to deny them needed supplies and information. This includes commerce raiding (guerre de course) and the destruction of ships carrying logistical supplies.

Command of the sea is strategic in nature. Noted naval historian Clark Reynolds addresses the strategic application of naval power in his own book *Command of the Sea*. He says,

... for maritime nations, the navy has been the main strategic arm of a nation’s defensive structure, dominating the defensive policies of the home government, maintaining a generally offensive stance, and operating mainly on the “blue water” of the high seas.  

Therefore, the navy of a maritime nation has several functions which are aimed at gaining command of the sea. The first function, Reynolds argues, is to “maintain a superior fighting fleet either a) to seize command of the sea, or b) to deter an enemy from

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attempting to control the sea." All naval operations then, are directed at depriving and denying the enemy the benefits of sea control. The fleet is used actively to maintain or gain control over any waters in dispute. Tactical victory at sea is one method of achieving strategic command of the sea, and is gained by defeating the enemy fleet in battle. This is the goal of fleet actions and other actions between warships. By destroying the warships of the adversary, one can prevent the adversary from projecting power on the ocean and gaining command of the sea for themselves. The attack on Pearl Harbor by the Japanese on December 7, 1941, was designed to eliminate the US Pacific Fleet, thus securing command of the sea for the Japanese Navy. Unfortunately for them, they failed to get four carriers which had sailed out of Pearl the day before, ensuring survival of valuable fleet elements. A second example is the Battle of Trafalgar in 1805. The British Fleet under Admiral Horatio Nelson defeated a combined French and Spanish fleet. This victory, although resulting in the death of Nelson, gave the British undisputed command of the sea during the rest of the Napoleonic Wars and throughout most of the nineteenth century.

During the Second World War, the naval campaigns by both sides in the Pacific Theater were designed to achieve strategic command of the sea. The Japanese seized islands for forward deployment of forces and to deny the Allies bases from which to launch attacks on the Home Islands. They also sought to control and secure the shipping lanes to secure resources from occupied China and colonies seized from the Allies. At the same time, the Allies began a campaign of island hopping to remove the Japanese from their forward bases in order to gain airfields to strike the Home Islands and bomb them into

\[27\] Ibid.
submission. (In cases where war does not exist, a naval fleet serves as a deterrent to aggression from competitors.)

The second and third functions of a navy are actively defensive to the nation and its interests. The second function of the navy of a maritime nation, according to Reynolds, is to defend the nation and its territory against invasions. This requires a navy to neutralize an enemy fleet or eliminate it. The third function is the protection of seaborne commerce. This means that the navy is actively engaged in convoy or escort duty, and patrolling the seas for pirates.

The fourth function of a navy is to blockade the coast of an enemy. This is offensive while the previous two are defensive. The primary purpose of a blockade is to deny the enemy the ability to trade commercially. Strategic command of the sea by a navy can have a tremendous effect on the economic well being of an adversary. A navy which has effective sea control can implement and enforce a blockade or a "maritime exclusion zone," cutting off trade with the enemy. This can be done for purposes of coercive diplomacy or as an act of strategic warfare. It would rarely if ever be done as an act of deterrence because a blockade is an extremely aggressive act. The purpose of a blockade would be to help wreck an enemy's economy and literally starve him into submission. The blockade also functions to prevent the enemy naval fleet from operating effectively. Blockades may be direct or indirect. A direct blockade involves overt moves by the navy to prevent commerce from flowing on the part of the enemy. An indirect blockade is done by "observing and thwarting enemy ship movements from a considerable distance away."28

28 Ibid., p. 13.
Functions five and six concern assaults on an enemy’s territory. The fifth function of a navy is to engage in combined operations with other branches of the military. This includes sea lift of ground troops and supplies, supporting an invasion through amphibious assault, and maintaining the lines of communication. The sixth and final function of a maritime power’s navy is to provide strategic bombardment. The navy must be able to project power inland. This can be done in a number of ways, from the use of conventional artillery to cruise missiles for ship-to-shore attacks or naval aircraft.

Continental powers apply navies in a different manner strategically from maritime powers. For continental powers, because of the small size of the navy relative to the large size of the army, the navy takes a defensive stance. Therefore according to Reynolds, the navy of a continental power has four functions.

The first function is to defend the country against invasion. The navy augments coastal defense positions in attempting to repel the invading fleet from coastal waters. It also protects harbors, rivers and other bodies of water which may be used by the enemy to gain access for invasion.

The second purpose of a continental navy is to engage in combined operations to support the army, which is the main fighting force of a continental power. A continental navy may ferry troops and supplies. It may support overland operations to capture an enemy port. The navy may also engage in small scale amphibious assaults and give

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29 Ibid.

30 Ibid., p. 14
supporting firepower to land units operating in range of naval weaponry.\textsuperscript{31}

The third function of a continental navy is commerce raiding. The navy will engage in \textit{guerre de course} in order to disrupt the maritime supply line of an enemy. This was the goal of the \textit{Kriegsmarine} of the Third Reich. The German navy conducted unrestricted submarine warfare during the First and Second World Wars in order to deny much needed supplies to the British. The purpose was to starve them into submission, and take the island nation out of the war by wrecking its economy and its ability to conduct war on land and sea. The navy may also engage in counter blockade operations in order to break a blockade imposed by an enemy navy to restore over sea commerce.

The fourth and final function of a continental navy, according to Reynolds, is to "maintain an efficient second-class fighting fleet either a) to restrict enemy offensive action, or b) to deter an enemy from attempting to dominate local waters."\textsuperscript{32} The continental navy acts as a deterrent in this case simply by existing. By maintaining an efficient fleet-in-being, a continental power can provide an effective deterrent to possible aggression by a maritime power.

Besides the question of the role of a navy with regards to maritime and continental powers, there is the question of the role a navy plays for a small power. According to Reynolds, a small power has only three tasks. The first of these is to defend the country against invasion. This is usually done by coastal patrol craft and shore installations, augmented by the army and air force. The second function is to police the local waters for

\textsuperscript{31} Ibid.

\textsuperscript{32} Ibid.
pirates or enemy ships. Reynolds points out that invariably small powers require the assistance of larger allied navies in order to achieve long term success. The third function is commerce raiding. However, even while engaging in guerre de course a small navy will need the assistance of a larger ally to be successful.

Command of the sea is important in the political and diplomatic arena as well as the military arena. Command of the sea gives a maritime nation an important tool or lever in carrying out policy. This is especially effective when the adversary is another maritime nation or is in at least some capacity dependent upon the sea. Command of the sea may not have much of an effect on a land-locked nation. Because the sea permits an avenue for the projection of power, several political options are left open to a sea power. Depending upon the circumstances, these are deterrence and coercive diplomacy.

The purpose of deterrence, of course, is to stop aggression or prevent some other threatening action before it happens. Sea power and command of the sea can be a great asset to deterrence and many deterrent options may be exercised depending upon the situation. A sea power can place a fleet off the shores of a potential adversary as a potential threat of a blockade, shelling, or destruction of commerce if the adversary takes an action not to one's liking. An example of this would be the presence of US naval ships in the Persian Gulf. At the present, one reason they are there is to deter the Iraqi regime from making any aggressive moves toward its neighbors.

Another way a navy acts as a deterrent is as a fleet in being. Merely by existing, it acts as a deterrent. The US Navy during the Cold War is one example. The existence of

33 Ibid., p. 15.
the navy, combined with its strategic potential, acted as one leg of the American deterrent to potential Soviet aggression.

Command of the sea is also an aid to coercive diplomacy. The purpose of coercive diplomacy is to reverse an action already taken or to prevent any further action regarded as threatening. A navy which has command of the sea can be instrumental in this. Historically, naval forces often have provided more flexibility for coercive diplomacy than traditional forms of military force. The naval blockade of Cuba in 1962, though not the only instrument of coercive diplomacy, was a key asset in getting the Soviets to back down and remove the missiles. The US Navy also acted as an instrument of coercive diplomacy recently in the spring of 1998 when Saddam Hussein closed off sites to United Nations weapons inspectors. The threat of air and missile strikes from United States naval forces in the Persian Gulf forced Saddam to back down and reopen access to United Nations inspectors.

Summary

In summary, Mahan and Reynolds agree on the importance of sea power to a nation's power. Both agree that sea power is important to national interest and world influence. Where they diverge in our discussion is their individual focus. Mahan focuses on the criteria which in his mind are prerequisites for a nation to become a maritime power. These prerequisites are based on three geographical considerations and three socio-cultural considerations. Mahan's criteria are relevant to a nation's ability to develop and sustain sea power.

Reynolds is concerned with how a nation applies sea power, rather than the
prerequisites for becoming a sea power. Like Mahan, Reynolds divides his applications of
sea power into two separate categories. One category concerns the use of navies by
maritime powers, the second category relates to continental powers.

The concept of command of the sea and sea power is important for our
understanding of the development of American naval policy. We should keep Mahan's and
Reynolds' criteria in mind as we examine the development of American naval policy in light
of the changes which would take place in technology, economics, domestic politics, and
international relations.
Chapter II. The Navy and the Early Republic

Of the four inter-related themes central to this thesis -- technology, economic change, domestic politics, and international relations -- the most important to the development of naval policy during the years 1794 - 1820 were domestic politics and international relations. Both shaped policy decisions made in regard to the development of the navy, the role it would play on the world stage, and the philosophies that would guide it for nearly a century.

In most cases throughout history, perceptions of a navy's role and importance to the national well-being change. This is true of the relationship between the government of the United States and the navy over more than two hundred years. From the time of its inception in 1775 to the present, the US Navy has gone through many changes in the role it plays as an arm of foreign policy.

Politics and the Navy

The US Navy was not originally meant to be a blue water navy which would project American power globally on any large scale. During the years of the Revolution and the Early Republic, the Navy was primarily viewed as a mechanism for coastal defense and as a deterrent to aggression by larger naval powers, specifically Britain. Many reasons for this view existed, but the first and foremost reason was expense. A large navy was considered to be too expensive to maintain by many leaders of the Early Republic. This was especially true of the Jeffersonian Party. Thomas Jefferson, recognized the need for some kind of naval force to repel invasion, but believed that a small force of gunboats would be
sufficient. There were others however who believed that a navy capable of blue water operations was necessary. These individuals tended to be members of the Federalist Party like Alexander Hamilton, who stated in the *Federalist Number XI*:

> A further resource for influencing the conduct of European nations towards us, in this respect, would arise from the establishment of a federal navy. There can be no doubt that the continuance of the Union under an efficient government would put it in our power, at a period not very distant, to create a navy which, if it could not vie with the great maritime powers, would at least be of respectable weight if thrown into the scale of either two contending parties.

This debate over the size, scope, and role of a navy would extend from the administration of George Washington until the War of 1812. Even the lessons of the War of 1812 would not sway the opinions of many. This debate can be partially explained through sectionalism. This sectionalism was not just North and South, but also East and West. Typically, Westerners, those people living away from the coast whose livelihood was not dependent upon the sea, opposed a large navy. The majority of Southerners also opposed a large navy because they did not deem one beneficial to their interests. It was primarily the mercantile classes of New England and the Atlantic coast who supported a large navy to protect their commercial interests. In the South, there were also a few tidewater plantation owners who could see the benefits that could be derived from commerce protection by a large navy, but again, these were few.

It is easy to see then, why views of the navy would be affected by sectionalism. A

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navy is expensive to maintain, and at the time it was considered by many to be a pork barrel project. We can understand that New Englanders and those people living in New York City and Philadelphia would want to have a navy capable of supporting commerce by patrolling for pirates or hostile adversaries and for convoy duty when necessary. The inhabitants were dependent on the sea for their economic well being. Whether it was fishing, whaling, or trade, the northeastern coast of the United States had a stake in maintaining a fairly large navy. The rest of the country on the other hand, did not. Southerners and Westerners would resist building a navy larger than what was deemed the necessary minimum for coastal defense. These sectional differences are demonstrative of Mahan's second and fifth elements of sea power; physical conformation and national character. With respect to element two, the physical conformation of the land in the northeast and the tidewater south provided an incentive for the locals to have an interest in maritime affairs. In contrast, the west and the Piedmont south did not have a geography which corresponded to an interest in the sea. In regards to element five, the character of the people in coastal areas tied their fortunes to the sea. Maritime commerce was integral to their prosperity. People living farther inland did not have their fortunes tied to the sea, and therefore had scant use for a navy. It is this view, perpetuated by Westerners and Southerners, which would dominate American naval policy from the end of the eighteenth century and spur debate well through the first quarter of the nineteenth. Sectionalism is a prime example of the role the theme of domestic politics plays in the formation of naval policy.

The naval policy of the Early Republic was affected strongly by the Jefferson administration. Historian Craig L. Symonds wrote,

Historians have frequently assumed that Gallatin, Jefferson, and other opponents of naval expansion during those critical years were philosophically opposed to spending any money on a navy. But the fact is that most of them were not antinavy at all; their concern was that the size and configuration of the navy be fully dependent on the national needs, or, to use a nautical metaphor, they preferred to trim the country’s sails to the winds how and when they blew rather than set storm canvas at once for a gale that might not come. What they did oppose was the construction of a powerful peacetime fleet whose major function would be to serve as an instrument of political influence.\(^{37}\)

The Republicans did not want a navy which was meant to impress, deter, or carry political risks which may provoke war.\(^{38}\) Although Jefferson would see that there was some benefit to be derived from a larger navy, he stayed the course of supporting a small one. For Jeffersonians, naval policy rested on maintaining a force suitable for coastal defense. This coastal defense policy was reliant upon two things. These were harbor fortifications, including shore batteries and a fleet of small maneuverable gunboats to augment these installations. The theory was that any navy which tried to force these fortifications would be too heavily damaged to carry out further operations. The Jeffersonians did recognize the need for a few ocean-going ships. But the numbers of these ships were very small, around a half dozen, and they were mostly frigate size like the 44-gun **USS Constitution**, or smaller. This small ocean going flotilla would be engaged in *guerre de course* in time of war. *Constitution* and other frigates and sloops would be used to raid an enemy’s

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\(^{38}\) Ibid.
commerce.

Unlike the Jeffersonians, the Federalists and later the Whigs of the northeast, favored a larger navy. Few of them envisioned a navy the size and power of Britain and France. What most of them wanted was a navy capable of blue water operations, which was large enough to make any enemy reconsider operating in American waters. Their theory was that the navy had to be large enough to deter a potential enemy from attacking. They recognized the fact that it would be logistically impossible for Britain to send a superior naval force to American waters, and still have enough ships, especially men of war, to meet other commitments. The Federalist/Whig vision of naval policy was one of forward deployment. The navy would cruise off the coast of the United States at a fair distance of several hundred miles and with enough strength to deter an enemy from assaulting American shores. These commerce minded men also wanted enough ships of suitable size to be used for convoy duty in the event that it should become necessary. This necessity occurred during the undeclared naval war with France and also with the troubles brought by the Barbary Pirates. In the case of the French, portions of the Jay Treaty between the US and Britain appeared to be an abrogation of the Franco-American Alliance of 1778. French ships predated upon American shipping. Ambassador James Monroe, a Francophile who failed to press American claims, was replaced in Paris by Charles Pinckney. Pinckney was rebuffed by the French government, and the situation deteriorated creating a quasi war or undeclared conflict with France. With respect to the Barbary Pirates, it was a simple case of continued piracy which threatened American commerce.

These conflicting interests had the effect of creating a naval policy and a navy which was ineffective. Although the navy would have some notable successes under fire during the War of 1812, the navy and the policies which guided it proved to be inadequate to meet the expanding needs of the national defense.

The Federalist Navy

The Federalists had the first opportunity to implement naval policy. During the administrations of George Washington and John Adams, the Federalists dominated the political scene. The emergence of the United States Navy was caused initially by the depredations of the Barbary Corsairs. Pirates from the North African States of Morocco, Algeria, and Tripoli were preying upon American commerce. The Naval Act of 1794, passed on March 27, 1794 stated, “Whereas the depredations committed by the Algerine corsairs on the commerce of the United States render it necessary that a naval force should be provided for its protection...” These pirates had been formerly held in check by the Portuguese. However, with the outbreak of the wars surrounding the French Revolution, the British arranged a truce between Portugal and Algiers. The Portuguese Navy had been responsible for suppressing the Algerine Pirates and keeping them to the Mediterranean and out of the Atlantic. The intent of this British action was to permit the Algerians to venture out of the Mediterranean to prey upon French shipping in the Atlantic.

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41 Symonds, Navalists and Antinavalists, p. 29.

Algerians ended up preying on American shipping as well. The Federalists chose to outfit a naval force to protect American commerce. This decision was not without controversy. Representatives from rural inland regions attacked the proposal. They believed that it was better to pay tribute or hire a European navy rather than build a navy which could enhance the power of the Federal government and increase the public debt. They also feared that the presence of a naval force in European waters could drag the fledgling nation into war.\(^\text{43}\)

Even against such strong opposition (the Federalists were a minority in the House), Congress resolved on January 2, 1794, "That a naval force, adequate to the protection of the commerce of the United States against the Algerine corsairs, ought to be provided."\(^\text{44}\)

The Resolution passed narrowly, 46-44. The Naval Act emerged from this resolution, providing for the construction of four 44-gun frigates and two of 36 guns.\(^\text{45}\)

Federalist naval policy developed out of the Naval Act of 1794. Instead of buying ships, the Federalists decided to build them. "The frigates would be built of live oak and red cedar, in all parts where they can be used to advantage," according to the instructions from Secretary of War Henry Knox. "These valuable woods afford the United States the highest advantages in building ships, the durability being estimated at five times that of the common white oak. Besides these woods, the best white oak, pitch pine, and locust, are

\(^{43}\) Ibid, p. 29.


\(^{45}\) An Act to Provide a Naval Armament March 27, 1794, in *The Public Statutes at Large of the United States of America, I*: 350.
directed to be used in the construction."^46 According to Harold and Margaret Sprout, "it was the avowed aim of the Administration, that these vessels 'should combine such qualities of strength, durability, swiftness of sailing, and force, as to render them equal, if not superior, [not merely to Algerian corsairs, but] to any frigate belonging to any of the European Powers."^47 It was this use of high quality materials and the desire to produce superior ships which resulted in the qualities that gave the USS Constitution the nickname Old Ironsides.

As with any other government program, the advantages were distributed widely. The government rented naval yards in six different cities, one for each ship. The timber was cut in the Carolinas and Georgia. Cannons and shot were to be produced by firms in Connecticut, Maryland, New Jersey, and Pennsylvania. Sails came from Boston.^48 According to Alexander Hamilton, such ships would allow the United States to "become the arbiter of Europe in America, and be able to incline the balance of European competitions in this part of the world as our interests may dictate."^49 A 1796 peace agreement with the Algerians resulted in a delay in the construction program. Legislation passed on the 20th of April, 1796 permitted the Washington Administration to finish three

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^47 Ibid.

^48 Ibid., p. 35.

of the ships. 50

The undeclared conflict with France gave a new impetus to development of the navy. The Federalist Adams Administration was supported by a Federalist majority in both Houses of Congress. Legislation authorizing the creation of a separate department passed Congress and the Navy Department was established under a Secretary of the Navy on April 30, 1798 51. This would give the navy a firm institutional support. President Adams named Benjamin Stoddert, a Federalist from Maryland as the first Secretary of the Navy. 52 Under Stoddert’s leadership, the three frigates Constellation, President, and Constitution were finished. They joined a force of over fifty ships hired by the government from the private sector. From 1798-1800, the fledgling Navy, supplemented by armed merchantmen and privateers cruised the Caribbean and Western Atlantic and faced only a few French privateers and cruisers. This was because the heavy ships of the French Navy, involved in the Napoleonic Wars, were unable to project power on the sea due to the superior British Navy which held it in check. 53

Jefferson’s Navy

The Federalist Adams Administration was followed by the Democratic-Republican Jefferson Administration. Jefferson had recognized the necessity of maintaining a navy. He


52 Ibid.

had backed Federalist plans at one time or another. However, Jefferson the President envisioned a smaller force than the Federalists. Jefferson believed that the nation could best be defended at least cost with a fleet of coastal gunboats. In a way, his naval policy was similar to his view of the army. Like a militia used for local defense, President Jefferson wanted a navy designed for coastal defense. It was to be made up of small vessels, some mounting only one gun, which could cruise up and down the coast, operating in shallow waters. These coastal vessels would support land fortifications in driving off invaders. Any sea-going ships that were in the fleet would be of a small number. These frigates like the *Constitution*, would be used as commerce raiders. The Jeffersonian gunboat navy relied heavily on naval militias supplied by the states for local coastal defense. Although the last naval acts passed by the Federalist Congress on March 3, 1801 had appropriated $500,000 for the construction of naval yards, docks, and other items. Charles Paulin says “a considerable part of the $500,000, the Republicans returned to the treasury unexpended, and but a very small part was devoted to the improvement of the yards.”

Jefferson put the seven vessels authorized by act of March 3, 1801 mothballs or in the language of the day “laid up in ordinary.” Of all the naval yards which had been authorized, the only one that attracted Jefferson’s interest was the Washington yard.

**The War of 1812**

As a result of the Jefferson Administration’s naval policies, James Madison

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55 Ibid., p. 128.
inherited a small navy barely fit for coastal defense. It was not large enough to provide adequate coverage where it was needed. Madison also entered the presidency in a time of troubles. The War of 1812 arose from several factors. British troops remained garrisoned in parts of the “Old North West” (the present Upper Midwest, east of the Mississippi River) when they were supposed to have left after the region was ceded to the United States in the Treaty of Paris. This was one factor. The primary factors in the decision of the United States to declare war on Britain were maritime. The Royal Navy had been boarding American flagged ships and impressing many of the sailors to serve on British ships. The British claimed that these men were deserters and could legally be pressed for service on British ships. However, the British also ended up impressing hundreds of American citizens. Many Americans were outraged by this.

This impressment of sailors by the Royal Navy resulted from a shortage in manpower. This period was a difficult one for the Royal Navy in terms of providing adequate personnel to man their ships. Discipline was harsh, making the atmosphere ripe for desertion. But Britain was in a war with Napoleonic France and needed men.

A second source of hostility resulted from the Orders in Council issued by the British Cabinet on January 7, 1807. The Orders in Council “forbade vessels to trade between ports belonging to, or in the occupation of, France or her allies”.\(^56\) This was a response to the Berlin Decree which Napoleon issued on November 21, 1806. The Berlin Decree had the effect of “proclaiming Britain in a state of blockade, forbidding all

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commerce with her, declaring all British commerce good prize and ordering British subjects to be imprisoned."

The Orders in Council disrupted trade for the Americans. From 1807 to 1812, it was a source of friction between the United States and Britain. America responded in December of 1807 with the Embargo Act forbidding American ships trading in the ports of the belligerents. By the spring of 1812, the British were willing to drop the Orders in Council if the Americans would drop their own acts against British commerce. The Orders in Council were eventually repealed because the British needed American supplies, especially foodstuffs to prosecute the war against France, but it was a week too late. The United States decided that it would no longer stand for the violation of its neutral rights. On June 17, 1812, the United States declared war on Great Britain. This was not to be a popular war, and only a narrow margin in Congress supported the war effort.

The War of 1812 would prove the inadequacies of Jeffersonian naval policies. If it were not for the fact that the British Navy was preoccupied for some time with Napoleon, the outcome of the war might have been different. As it was, the war was almost disastrous for the United States, demonstrating severe weakness in its policies regarding both the army and the navy.

The United States Navy made a good showing for itself during the opening phases of the war. American ships won several victories which buoyed the spirit of the public and did much for the psychological well being and confidence of the country. It was not to last.

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57 Ibid., p. 228.

58 Ibid., p. 245.
These early victories were won by the few ships the United States maintained for blue water sea keeping operations, in single ship-combats in which the American frigates usually outgunned their British opponents. The *United States* captured the H.M.S. *Macedonian* on October 25, 1812. The *Constitution* destroyed the *Guerriere* on August 9, 1812, and defeated the *Java* on December 29. 59 Most American vessels were the small coastal vessels, the legacy of the Jefferson administration. These ships proved ineffective in preventing the British from operating up and down the coast. From 1813 onward, the regular United States Navy would have little success on the high seas. What little success did occur was at the hands of American privateers, which were authorized by Congress in 1813. Military historians Millet and Maslowski point out correctly that the Jeffersonian reliance on small ships was not necessarily unwise. They state,

> The reliance on small ships was not ill-founded. The Navy's primary responsibility was to protect America's expanding commerce. No great nation threatened this trade, but pirates and irregular privateers employing small, fast ships did. Trying to catch these buccaneers with ships of the line and frigates was futile. 60

The Republicans were trying to meet the most likely threat to American shipping while maintaining a relatively cheap force that was less of a danger to republican institutions. Even so, the navy of Jefferson, although successful against pirates, was not really suitable for defending against the threat of a great power. From 1812 onward, the Jeffersonians would follow Federalist naval policies.

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60 Ibid., p. 124.
Summary

Domestic politics and international relations thus strongly affected the naval policy of the Early Republic. Domestic politics played a role through the sectional and partisan opinions of the navy. New England and communities along the east coast were more likely to support a navy than southerners and westerners. Politically, these people tended to be Federalists and then Whigs. Mercantile interests and tidewater planters believed a navy to be important for the protection of commerce, upon which their livelihoods depended. The fishing and whaling industries also benefitted from naval protection. Finally, from the perspective of the coastal population, a navy was important for protecting towns and cities from attack.

The agrarian interior areas of the west and south generally opposed the navy. Politically, these people tended to be Democratic-Republicans and then Democrats. They generally had little dependence upon sea-borne commerce, and therefore were likely to view the navy as an extravagant or unnecessary experience. Because they lived farther from the sea, they were unlikely to fear invasion or bombardment of their homes. This lack of concern gave interior people even less incentive to support the navy.

Because the United States was in its infancy during this period, there were two different points of view concerning the effect a large navy would have on international relations. The anti-naval faction believed that a strong navy could possibly antagonize a larger European Power like Britain. Therefore it was in the best interest of the nation to maintain a small coastal defense navy, to help protect the harbors and engage in commerce raiding should a war arise. The pro-navy faction felt that a strong navy would deter
invasion, since the distance between Europe and America was great enough to present the
enemy with logistical difficulties. Most importantly, a strong navy could meet the enemy as
far from coast as possible, reducing the chance of invasion and damage to coastal cities.

Although domestic politics and international relations continued to influence naval
policy throughout the nineteenth century, the most important changes were brought by the
Industrial Revolution that transformed naval technology. Steam propulsion and armor
changed naval tactics and logistical considerations. Industrialization of the American
economy resulted in surpluses which required overseas markets. Expanding commerce
required changes in policy and a newer, stronger navy.
Chapter III: Naval Policy and the Industrial Revolution

The Industrial Revolution which began in England in the early eighteenth century, would have a profound effect upon the navies of the world in the nineteenth century. The theme of technology and technological advances permitted by industrialism would affect propulsion, construction, size, and ordnance. These advances included steam propulsion, ironclading, steel ship construction, heavier breech loading artillery, and the corresponding improved ordnance. Over the course of the nineteenth century, these changes would alter the strategy and tactics of naval warfare around the world. They would also require substantial changes in naval policy. The requirements and abilities of the new technologies necessitated changes in geopolitical thinking and goals.

The Industrial Revolution also brought changes in the American economy. Over the course of the nineteenth century, the economy moved from an agrarian base to an increasingly industrial base. This shift impacted naval policy in several ways. The United States began to produce surplus goods, resulting in an increased desire to find overseas markets. This in turn led to a renewed interest in the navy. The desire to open new markets abroad, turned the attention of many American’s outward. America’s ubiquitous isolationist sentiment began to dissolve, and interest in a Central American canal and overseas possessions emerged. A strong navy would be a necessity to protect these new interests.

Steam Propulsion

The first and most important change brought to navies of the world by the industrial revolution was a change in ship propulsion. For millennia, ships had used both the wind
and human strength as sources of power. By the end of the sixteenth century, wind power
reigned supreme, especially in relation to ships of war. However, that was to change at the
end of the eighteenth century with the first successful application of the steam engine to
ship propulsion.

The steam engine was first developed to pump water out of English coal mines.
The steam engine was steadily improved through the eighteenth century by innovators such
as James Watt and Richard Trevethick. By the end of the century, the steam engine had
been improved enough in terms of size, power, and efficiency to be considered for motive
power. The Scotsman William Symington sailed the first mechanically successful
steamship, the *Charlotte Dundas* in 1802. However, the first successful commercial
application of steam power to ships came not in Britain but in the United States when
Robert Fulton sailed the *Clermont* up the Hudson River in 1807.

Fulton soon turned his attention from commercial applications to military. The first
steam powered warship was the *Demologos*, constructed in 1814 by Robert Fulton for the
defense of New York Harbor.¹¹ Fulton designed *Demologos* in a most ingenious manner.
Fulton biographer, John S. Morgan writes,

Fulton borrowed from his ferryboat construction experiences and built her
catamaran style, with a double hull, one hundred and sixty seven feet long,
fifty-six feet wide, and thirteen feet deep, measuring 2,475 tons - enormous
for that period and a radical departure in warship construction. Anticipating
by years the basic principle of the iron-clad, he built her sides and deck of
five-foot lumber, which protected a paddle wheel that was also made more

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1941), pp. 18-19.
secure in its position between the twin hulls. 

Demologos had the advantage of a higher average speed than most sailing ships. However, her weakness lay in her seagoing ability. She simply did not have the sea-keeping abilities of a sail-powered warship. As Princeton Professor Bernard Brodie points out, "tactically she was a powerful warship, but strategically she could hardly be considered a naval vessel at all." The ship could not function properly on the high seas, and did not have the range to operate for long periods. This weakness in the Demologos would prevent the wide adoption of steam propulsion for nearly two decades. Because the nature of their business involves high risks, navies tend to be conservative institutions when it comes to adopting new technologies. Naval officers of the period being concerned with reliability and familiarity. The inherent weaknesses in the early steam ships meant adoption would be slow. Steam ships were vulnerable. The paddle wheels could be destroyed by one shot, and the engines sat fairly high in the boat making them vulnerable as well. Fulton foresaw this problem and placed the paddle wheels in the center of the ship. He also placed the engine and boiler low in the hull behind walls five feet thick. She was also armed with two 100-pound short guns designed to fire submerged at close range. The ship was ahead of its time. Demologos, was not completed in time to join in the war. By the time of launch, the war was almost over. Frank M. Bennet, a Passed Assistant Engineer, U.S.N.

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63 Brodie, Sea Power in the machine Age, p. 20.

believed that this was an unfortunate circumstance. In his book *Steam Navy of the United States*, Bennet argues,

the subsequent performance of this craft under steam makes it certain that with her powerful battery and independence of wind and tide she would have been entirely successful over the sailing-frigates she was built to assail, her advantage over them being not unlike that possessed by a savage, tireless wolf attacking a flock of sheep. Her earlier advent would have saved us the loss of the *President* frigate, and thus deprived the enemy of one of the very few causes for rejoicing over naval victories that the events of that war afforded.\(^{65}\)

Although his conjecture was originally made in 1896, Bennet’s theory is a good one. Given the effect on naval thinking that the action between the *Monitor* and the *Merrimac* would have years later, the use of *Demologos* may have hastened the development of the steam powered warship.\(^{66}\) *Demologos* was not a sleek, fast ship by any means. Though designated a frigate, she was built more like a fortress. Essentially *Demologos* became a formidable floating battery when she entered service.

The application of steam power to ships like *Demologos* was revolutionary. This is especially true when discussing navies. Bernard Brodie said of this revolution,

> What did steam power do to naval warfare? It completely revised the conditions governing naval tactics; it modified the whole geography of position and distance, thus profoundly affecting strategy; it enhanced the potential military power of industrialized states; and it injected the all-important factor of fuel into the problem of naval supplies, thus affecting the range of naval fleets and the strategic importance of stations abroad. In short, the steam warship was the most important development since the fifteenth century, when the discovery of tacking inaugurated the era of the


\(^{66}\) Ibid., p. 9.
sailing ship.\textsuperscript{67}

The United States was very slow in adopting steam propulsion and other technologies compared to European Powers such as Britain and France. It was not until the 1820's that steam navigation received proper attention from any navy. In 1821 and 1822 respectively, the British purchased the \textit{Monkey} and built the \textit{Comet}, both of which were unarmed. They did not acquire armed steam vessels until 1828 when they commissioned the \textit{Active} and the \textit{Lightning}.\textsuperscript{68} During this long lull in the adoption of steam by the navies of the world, steam was commercially a success. In 1835, there were 700 steam ships traversing the waters of the United States.\textsuperscript{69} Brodie points out that there were actually several good reasons for the delay in the adoption of steam power.

According to Brodie,

\begin{quote}
 the machinery of the time was excessively bulky and heavy for the power it developed—about one ton per horsepower—and with its low efficiency its fuel consumption was enormous. Engines powerful enough to give appreciable speed and fuel sufficient for more than a few days' use could not be crowded into the same vessel. The steamship was therefore useful mainly on inland waters where frequent refueling was possible.\textsuperscript{70}
\end{quote}

Combine the low power to weight ratio with the vulnerability of engines to enemy fire and the fact that they used up precious space, it is easy to appreciate why navies were reluctant to adopt steam power.

\textsuperscript{67} Brodie, \textit{Sea Power in the Machine Age}, p. 18.

\textsuperscript{68} Ibid., p. 22

\textsuperscript{69} Ibid., p. 23.

\textsuperscript{70} Ibid.
By the 1830's and 1840's, the perception of steam power for warships began to change. In order for steam warships to become practical and effective, a few technological changes had to occur. First was the adoption of the high-pressure steam engine. Earlier low pressure engines were too inefficient to be viable powerplants for warships.

Improvements had to be made to the condenser, boiler, and the piston/cylinder. Fixing the condenser problem was fairly simple and so the condenser underwent the least amount of change between the low and high pressure steam engines. The boiler went through many changes and improvements. These included the return flue, water tubular, and fire tubular boilers, which either ran tubes of water through the fire box or heat from the fire box through tubes in the boiler. All of these improved boilers increased the heating surface of the boiler, which when combined with more robust boiler construction, resulted in more efficient high pressure engines. Because of problems with incrustation resulting from the use of sea water in boilers, evaporators were developed to distill freshwater. This eliminated the procedure of blowing out the boiler to get rid of the fouling. Improvements were also made in the piston/cylinder configurations. Configurations included vertical, horizontal, and inclined cylinders. ⁷¹

The screw propeller combined with the high pressure steam engine made steam warships truly practical. The screw propeller was developed independently by John Ericsson and Francis P. Smith in England. ⁷² Ericsson was unable to persuade the British

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Admiralty of the merits of his invention. He came to the United States at the request of Captain Robert F. Stockton, USN. Ericsson got authorization to build the first screw propeller warship the *Princeton* in 1842. After this, the screw propeller gained acceptance. The screw propeller used to this day, was efficient and eliminated the vulnerability to shot and shell which plagued the paddle wheel, because it was under the surface of the water.

By the 1820's and 1830's the American and British navies began to develop small numbers of steam warships for special uses. It took several technological innovations, primarily in the size, weight and efficiency of the engines to make steam power a viable propulsion system for warships. The steamer enjoyed greater maneuverability over a ship of sail and could use that maneuverability to its advantage.

By 1845 the potential of steam power for wide use in naval vessels was realized. The French were the first to adopt a program to convert to steam power. Of course the British sensed this as a threat to their national security and the first naval technological arms race began. In Britain, the perceived possibilities of steam power led to a panic over the possibility of invasion. Prevailing winds had long enabled the English Channel to serve as a barrier to invasion. Steam power negated that protection. A warship could now go wherever it desired, no matter what the weather.

Steam-propelled warships had their first great test during the Crimean War, and by 1857 the European naval community reached consensus that a ship without steam

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73 Ibid.
equipment “was of no tactical value.”\textsuperscript{74} Steam power changed the tactical and strategic nature of naval warfare. Wind was no longer a factor. The three biggest changes wrought by steam were 1) independence from wind and improved speed; 2) the introduction of the problem of fuel; 3) “the modification of maritime geography, particularly in the relative distances measured in days of sailing.”\textsuperscript{75} Effectively, steam made ships more maneuverable, more dependent on refueling bases (which would subsequently affect colonial aspirations and make previous backwaters strategically important), and shrunk the size of the world and response time to crises.

**Iron Hulls and Armor**

Iron ship construction was to follow closely on the heels of steam propulsion. Until the nineteenth century, timber had been the sole material used in ship construction. As a construction material, timber presented several problems. Timber required seasoning, constant maintenance, and repair. It was also vulnerable to fire and was not water tight. The realization occurred early that iron would be a better material for construction. Iron had greater strength than timber for a given weight, required less maintenance, and was invulnerable to fire and could be used to create water tight compartments.

Iron construction of ships was first adopted by the British. They had historically faced timber shortages, and their advantages in coal, iron ore, and industrial infrastructure made iron an attractive choice. However, it required improvements in industrial processes to make iron ship construction feasible. The first iron warships were steamers built in 1839

\textsuperscript{74} Brodie, *Sea Power in the Machine Age*, p. 76.

\textsuperscript{75} Ibid., p. 91.
by the Royal Navy. They were the *Phlegethon* and the *Nemesis*. These two ships were the first iron ships to see combat in the First Opium War of 1840-1842 where they performed outstandingly.\(^{76}\) Iron construction added strength and also increased the size of ships it was possible to construct. It also meant the introduction of the armor-clad and the corresponding ordnance.

Iron ships not only had greater durability than wooden ships, but could also handle great weights of armor and much heavier and more powerful guns. The engagement of the *Merrimac* and the *Monitor* at Hampton Roads, Virginia on March 9, 1862, was the first time two ironclads fought one another. The engagement proved indecisive. According to Brodie, this indecisiveness did not stem from the invulnerability of armor, but rather from the failure to use the proper projectiles or propelling charges.\(^{77}\) Because of considerable improvements in gun and projectile technology, the two ships were relatively more vulnerable to the ordnance of their time than the U.S.S. *Constitution* was to the ordnance of its time. However, armor clads continued to be improved, and with those improvements in armor came improvements in the ordnance used to penetrate that armor. This resulted in an arms race among the European Powers. Due to rapid improvements in technology, as one ship was completed and left the ship yards, it had already been made obsolete by the ship which was having its keel laid in the same yard. The biggest changes occurred in ordnance. In fact, it was improved ordnance in the form of the explosive shell and the gun to fire them which was responsible for the adoption of armor and ironclading. As historian

\(^{76}\) Potter (ed.), *The United States and World Sea Power*, p. 262.

James Baxter writes:

It was the introduction of shell guns in naval warfare that upset the balance between offence and defense. From the first introduction of these formidable weapons, some of the leading advocates foresaw the necessity of increased protection, and proposed the adoption of armor. 78

Old wooden hulled ships could withstand solid shot well enough. It was the explosive shell which doomed them by starting fires, blasting great holes in the ship, and igniting the powder magazine. 79 After the Civil War, naval ordnance continued to improve.

The late nineteenth century saw tremendous improvements in the size, quality, and range of guns as well as the projectiles they threw. High quality steel permitted the construction of powerful guns and by the 1880's with the introduction of slow burning (smokeless) powders extremely high velocities and long ranges with heavy shot or shell was possible. Eventually a point was reached where no matter how much armor a navy placed on a vessel, someone would develop ordnance to penetrate it. So an equilibrium was reached. Ships were heavily armored in the most vulnerable places and more lightly armored in others, thereby introducing the development of the modern battleship.

New Missions and Priorities

The changes in naval technology brought by the Industrial Revolution not only affected ship construction and performance, but the nature of naval strategy. The importance of overseas possessions for coaling stations and resupply helped to stimulate international competition for control of islands in areas such as the Pacific and the

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79 Ibid.
Caribbean. This combination of technological improvement and increasing pressure to expand influence abroad for both commercial purposes and security needs would affect American naval policy over the course of the nineteenth century. As we shall see, the United States moved away from the token naval forces of the Early Republic to a naval power of world rank after the Spanish-American War.

After the War of 1812, the US Navy went through a period of reorganization. American naval policy began to be influenced strongly by needs beyond the coast of the United States. Charles Paulin writes,

from 1815 to 1842 the principal duty of the navy was the protection of American citizens and commerce in foreign ports and seas. Next in importance was its work in suppressing piracy. Indeed, its cruises against the West India pirates from 1821 to 1826 constitute the chief “naval war” of the period.  

There was a need to have naval forces on station abroad, not just in home water. Thus, a series of squadrons were established over the course of the next thirty years. The first of these, the Mediterranean Squadron launched in 1815, focused upon the pirates of the Barbary States, which continued to prey upon American commerce. The West Indian Squadron established in 1822, patrolled the Caribbean and the Gulf of Mexico. In 1826 the need to patrol the South Atlantic resulted in the establishment of the South American or Brazil Squadron. The growth in trade with the Orient required American naval presence in the Pacific. Established in 1835, the East India Squadron fulfilled this role. A Home Squadron to provide adequate patrolling of American waters was organized in 1841. The

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80 Paulin, Paulin’s History of Naval Administration 1775-1911, p. 185.
need to interdict the slave trade resulted in the 1843 formation of the African Squadron.82

The Anglo-American Crisis of 1840-1841 precipitated the establishment of the Home Squadron to protect American shores. The crisis resulted from the arrest of Alexander MacLeod, a British subject charged with the murder of an American citizen on United States soil during the failed Canadian rebellion of 1837. It was further complicated by four other sources of dispute with Britain. These were the boundary dispute between Maine and New Brunswick, suppression of the slave trade, the efforts of the United States to annex Texas, and the struggle over the Columbia River valley in the disputed Oregon Territories.83 Webster-Ashburton Treaty of 1842, peacefully defused the crisis, adjusting the boundary between Maine and New Brunswick, and stretching through the Great Lakes to the Lake of the Woods.84 However, the crisis and the threat posed by the improved mobility of steam power resulted in the push for a Home Squadron by the Whig Administration. Previously the shallow coastline of the United States had protected it from operations by deep draft sailing vessels. However, the newer shallow draft steam boats could operate in this environment, rendering that defense moot.85

By the 1840's, American maritime concerns had grown. This is especially true in the Pacific Ocean. Americans were settling in Mexican California. American whalers

82 Ibid., p. 95.

83 Ibid., p.116.


operated in the Pacific, and trade was increasing with the Far East. The Whigs proposed an increase in the size of the Pacific Squadron and the establishment of bases either on the West Coast or Hawaii. 86

With respect to naval policy, domestic sectional realignment began to occur. The Southern States which had previously been anti-navy were now shifting to a decidedly pro-navy stance. This was a result of the presence of British naval installations in the West Indies (Bermuda) and the threat they presented to Southern ports in the event of war. The newer states emerging in the central portion of the continent, and those away from the ocean still tended to vote against naval increases which had no particular interest to them. According to the Sprouts, Inland Democrats voted solidly against the navy, as did Whigs from Kentucky and Tennessee. "Representatives from the frontier States of Michigan, Illinois, and Missouri, all voted anti-navy regardless of party affiliation." 87

Troubles between the United States and Great Britain were not over. The Oregon Crisis of 1845-1846 resulted from a boundary dispute involving the region west of the continental divide. Both countries had agreed to joint occupation of the resource rich Oregon Country in 1818. By the mid-1840's relations became tense as settlers from both countries moved into the territory. A war scare erupted as western expansionist "War Hawks" in Congress demanded that the United States accept no less than the northern boundary of the Oregon Country, coining the phrase, "54° 40' or Fight." The British wanted to set the boundary line at the mouth of the Columbia River, along the line of 42

86 Ibid., p. 119.
87 Ibid., pp. 122-23.
degrees north latitude.** This situation was exacerbated by the election of the expansionist-minded Democrat, James K. Polk to the Presidency in 1844. According to the Sprouts, with respect to naval policy,

throughout the crisis, the Administration pursued a decidedly anomalous course. While publicly defying the British Empire, the President took no positive steps in preparation for war. And although war was widely regarded as imminent throughout the autumn of 1845, the naval estimates for 1846-1847, sent to congress in December 1845, were only two-thirds as large as those submitted the preceding year by the Tyler Administration.®

Polk refused to mend the deficiencies in naval preparedness. In comparison, as of March 1846, the US Navy had seven steamers mounting a total of 39 guns, while the British had 141 war steamers mounting 698 guns and the French had 68 steamships mounting 430 guns.® A compromise was reached establishing the boundary at 49 degrees north latitude, leaving Vancouver Island in British hands. This agreement added 285,000 square miles to the United States.® The United States was never presented with the daunting task of facing the British Royal Navy with such a pitiful token force.

The Democrats decided to take an alternative route to acquiring steamships as opposed to strengthening the regular navy. Instead, they began a program of subsidizing the construction of merchant steamers which could theoretically be converted into warships if necessary. This idea appealed to those who backed a small navy. What resulted was a


®® Ibid., pp. 130-31.

®® Howarth, To Shining Sea, p. 149.
compromise measure. The navy obtained four steam ships and the shipping companies were awarded subsidies for the construction of merchant steamers to be converted into warships if the need arose. This idea slowed the development of the US Navy. Even though it did have some practical merits such as providing additional hulls for fleet logistical support, converted merchant ships were no match for real men-of-war. The concept eventually died out with improvements and changes in naval technology.92

The crises of the mid-1840's coincided with one of the most important developments for the navy as an institution and for the future of naval policy making. During his tenure as Secretary of the Navy 1845-1846, George Bancroft established the Naval School at Annapolis which would become the United States Naval Academy. A naval college had been debated in the past, but attempts to establish one had been difficult. Bancroft skillfully avoided red tape and other interference by establishing the school when Congress was out of session. First he acquired Fort Severn in Annapolis from the War Department (Bancroft also happened to be acting Secretary of War) and moved the Academy's predecessor, the small and under-equipped Philadelphia Naval School to the site. A board under the chairmanship of Commander Franklin Buchanan subsequently drew up the curriculum and created the rank of naval cadet. The course of study would consist of two years study at the Academy, three years at sea, and one more year on a training vessel. Classes began on October 10, 1845.93 Bancroft saved money by firing the majority


of the instructors who had been teaching at the Philadelphia Naval School. This amounted
to a savings of $30,000. When Congress came back into session and saw what Bancroft
had done, "Congress blinked a little at the changes, saw that they were good, and voted
that the thirty thousand dollars saved should be used to improve the new school."® Five
years later in 1850, the school was officially titled the United States Naval Academy.®

The Mexican War and the 1850's

The Mexican War did not involve a great deal of naval actions like the Revolution
or the War of 1812. The role of the navy was primarily logistical with a few exceptions
such as Commodore Perry's expedition up the Tabasco River and the capture of Tampico.
Its most important combat operation was the Siege of Veracruz which was the largest
American amphibious landing prior to the landings in North Africa in 1942.® The navy
basically served as a ferry service for the army. It was not a war which the navy was best
prepared for either. Historian Samuel Morison states,

Although war between the United States and Mexico did not formally begin
until May 1846, it had long been anticipated. Unpaid claims, the annexation
of Texas, President Polk's ambition to acquire California, and the
disinclination of the Mexican government to negotiate -- all contributed to
the outbreak of a war that could easily have been avoided by less
aggressiveness on one side and more realism on the other. Yet neither
country had prepared for was. The United States Navy, with several fine
new frigates, sloops, and brigs built to fight a blue-water war with a
European power, lacked both light-draft steamers and sailing vessels which

® Stephen Howarth, To Shining Sea, p. 158.


could operate profitably along the Gulf Coast and up the rivers of Mexico. Even so, it was overwhelmingly superior to the Mexican Navy. A small squadron of enemy warships could have steamed right up to New York and shelled it, so feeble were the city's defenses. But Mexico had no ships capable of steaming that far.⁹⁷

The Mexican War was the first real operation of the new steam technology in a combat environment in the hands of the US Navy. According to the Sprouts,⁹⁸

The Mexican War (1846-1848), fought mostly on land, afforded little opportunity for testing the strategic principles and naval technology still in vogue within the United States. But that conflict nevertheless had some naval implications. In particular, it demonstrated the importance of superior naval power as an adjunct to oversea military operations.⁹⁸

Besides providing logistical support, the navy protected American ships from depredation by Mexican commerce raiders and privateers. This last threat ended up being no threat at all. The Mexican War was not a very good testing ground for naval combat operations. That would not occur until the US Civil War fifteen years later. The Mexican War did have one major effect on naval policy. The territorial acquisitions from Mexico by the United States meant that the United States would be forced to defend two coasts. This fact would influence naval policy over the course of the rest of the nineteenth century and into the twentieth. It would lead to greater American interest in the Pacific, a two ocean navy, and a trans-isthmian canal in Panama.

The navy did play an important role in the 1850's in the opening of Japan to US trade. According to historian Edgar S. Maclay, "The increasing commerce with China, the growth of whale fishing, and the rapid development of California made it necessary to open

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⁹⁷ Ibid., p.179.

Japan, and in 1851 Congress decided to send an expedition to that country.99 The expedition of 1853-1854 by Commodore Matthew C. Perry was successful. With an impressive show of force and skilled diplomacy, Commodore Perry managed to negotiate a treaty opening the ports of Simoda and Hakodate for coaling and supply, and also for the repatriation of shipwreck victims. According to Morison, "It [the treaty] fulfilled the two main objects of his Expedition -- castaways and ports of refuge -- and he rightly regarded the permission to establish an American consulate as an opening for future trade."100 The whole expedition was conducted peacefully without shedding a drop of blood, and upheld national honor.101 Although conducted peacefully, the show of force in the form of Perry's warships used for purposes of diplomacy is an example of the use of a navy as an instrument of coercive diplomacy, appropriately called "gunboat diplomacy."

The Civil War

The Civil War became the school for new naval tactics versus the old. In addition, there was the widespread introduction of armor-clad vessels and other new weapons which the industrial revolution enabled. These included the first successful attack by a submersible against a surface ship, and the first duel between armor-clad ships whose sole motive power was steam.

With respect to naval policy, the Federal side found itself with a decided advantage over the Confederacy. The Union had a fairly large fleet. The Confederacy on the other

100 Morison, "Old Bruin", p. 380.
101 Ibid.
hand found itself in much the same position as the United States found itself during the Revolution. The CSA managed to build some ships, and bought cruisers from Europe, notably Britain. Unlike the USA, the CSA was unable to cobble together a fleet of substantial size to put it on an equal footing with the Union Navy and was forced to engage in guerre de course. The USA on the other hand used its navy to advantage. The Lincoln Administration ordered a blockade of Confederate ports in order to slowly strangle the Confederacy into submission. The blockade worked fairly well. However, it was not perfect. Blockade runners were able to get in and out in many places. Also, Confederate cruisers, particularly the CSS Alabama exacted a tremendous toll on Union shipping, engaging in commerce raiding. The Alabama alone was responsible for the decline of New England whaling, which never recovered. The depredations wrought by the Alabama would result as a source of animosity between the United States and Great Britain for nearly twenty years after the war. The Alabama was built in Britain and the US demanded reparations for the damage she had caused.

With the close of the Civil War, the era of the sailing ship as the main ship of the line had come to a close. The Industrial Revolution and advances in metallurgy insured that the wooden sailing vessel armed with muzzle-loading smoothbore guns firing solid shot would be replaced by steam propelled, steel hulled, armored vessels armed with breech-loading rifles firing high explosive armor piercing shells. The period stretching roughly from the close of the Civil War to August of 1914 would include a series of arms races. The leading maritime nations of the world would compete viciously with one another on the drawing board. Ships would become bigger and faster. Armor would
become stronger and heavier. Guns would increase in weight and caliber, shooting farther and more accurately. In many cases, as each new ship came out of the dock yards it was already obsolete compared to the ship whose keel was being laid in the next dry dock.

H.M.S. Dreadnought, for example, which had its keel laid in October of 1905, was much faster and more heavily armed than its sister ships Lord Nelson and Agamemnon, laid just one year before.\(^{102}\)

**Stagnation and the New Navy**

The twenty five years between the close of the Civil War and 1890 was a period of profound change in American naval policy. The US Navy moved from a navy dominated by wooden vessels and muzzle-loading guns to a navy of steel vessels armed with breech loading rifles. There was also a profound change in the direction of naval policy and naval thinking. Stephen Howarth succinctly describes the whole of American naval history in one statement. Mr. Howarth states,

> For the nation, the last twenty years of the nineteenth century were a time of transition; for the navy, they were more than a time of reconstruction— they were years of renaissance. Looking back today over two centuries of American naval history, those twenty years separate the first and second centuries with astonishing sharpness. In its first hundred years, the U.S. Navy was built of wood, powered by the wind, and governed essentially by a coastal defense, commerce-raiding, single ship strategy. Then came the dividing years, the birth of the New Navy; and in their second hundred years America’s warships have been built of steel, powered by steam, and governed by a strategy of oceanic fleets.\(^{103}\)

The first problem during this period was the transition from the old navy to the new

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navy. In the years following the Civil War, the navy had effectively been allowed to languish and pass on into technological obsolescence. There were a couple of reasons for this. Historian Walter Herrick points out that,

Inevitably, the myth of monitor invincibility and the inflated reputation of Southern raiders substantiated the traditional interpretation of the naval mission. With the return of peace, therefore, the monitors assumed the task of patrolling the shoreline, while wooden cruisers resumed their flag showing function overseas. Although the war had revealed the ineffectiveness of these types when unsupported by a strategic force, they continued to symbolize American naval doctrine until Congress authorized construction of the country’s first steel warships in 1883.104

Supporters of the old navy believed that the system of commerce raiding which had been the staple of American naval strategy during the past would continue to be an effective strategy for the future. At the same time they supported armored gunboats for coastal defense to supplement coastal fortifications. This philosophy was very nearly a throwback to the policies of the Jefferson administration nearly seventy years before. These conservative elements also influenced ship design by proposing that steamers retain masts for auxiliary propulsion and wooden hulls. The situation was so bad in the mid-1870's that Stephen Howarth observed,

And yet in 1876, the centenary of the Declaration of Independence, a world survey of 'Naval Powers and their Policy,' published in Great Britain, did not include the United States. Fifteen nations were described, including some which one might not think of as obvious today—Brazil, Turkey, Peru, Austria. But of the American fleet, all that was said was that its guns were 'condemned all over the world and superseded,' and that its 'system of armor plating is unsound.' The survey concluded: 'it is surprising that the

Navy of the United States has been so neglected of late years.105

Things began to turn around in the 1880's. Amidst the general deterioration and malaise which gripped the navy, progressive thinking officers began to make their mark. Herrick points out that,

Paradoxically, the postwar period of regression marked the birth of professionalism in the service. It produced a new breed of officers inspired by the progressive ideas of Commodore Stephen B. Luce and Captain Alfred T. Mahan, whose promotion of the naval War College fostered the study of naval warfare as a science. Founded by Luce in 1884 at Newport, Rhode Island, this institution - the first of its kind anywhere - barely survived the attacks aimed at it in infancy by anti-intellectual senior officers but ultimately won recognition as an essential naval facility.106

The Naval War College was a revolutionary educational institution. It provided an environment for post-graduate study of naval warfare. The establishment of this school led to a greater level of professionalism in the naval officer corps. One other institution which raised the level of professionalism and the progression of naval thinking was the United States Naval Institute, founded in 1873. Its journal Proceedings provided a medium for the exchange of ideas by naval officers and others interested in naval affairs.107

Proceedings was an important publication because it permitted debate over naval policy, tactics, and strategy free from the control of the Navy Department.108 The Naval Institute encouraged free debate and expertise in the naval community and has remained important to this day.

105 Howarth, To Shining Sea, p. 216.
107 Ibid., p. 21.
During this period of naval transition, Captain Alfred Thayer Mahan of the US Navy would revolutionize naval thinking throughout the world. Mahan arguably had the greatest impact on naval strategy in modern times. He had a rather uneventful early career in the navy. It was not until the middle of his career that he made a name for himself. A very religious man, Mahan originally disapproved of the notion of empire and imperialism. However, as his career advanced, he discovered some important historical relationships between sea power and national greatness. This led him away from an isolationist view of the place of America in world affairs. He began to proselytize in order to convert his own countrymen to the view that the path to national greatness lay in sea power.  

He was a fairly prolific writer and wrote a number of essays which received the attention of his superiors. This led to an appointment to a lectureship at the Naval War College. From his lectures, Mahan prepared three notable works. These were *The Influence of Sea Power Upon History 1660-1783*, *The Influence of Sea Power Upon the French Revolution and Empire 1793-1812*, and *Sea Power in its Relation to the War of 1812*. In these works, Mahan used historical example to demonstrate the importance of sea power in history, interweaving policy, tactics, and strategy. Mahan's conclusions stunned the naval community world wide. He quickly became the prophet and champion of sea power as a major arm of foreign policy, especially in the United States. Paul Kennedy states,

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111 Ibid.
Whatever reservations one might have upon Mahan's analysis of the past, it is clear that his interpretations and ideas were most significant, throwing a new light upon the course of European history; no scholar since his day could write about the rise of the British Empire without acknowledgment to the role of sea power. What was true of the past was not necessarily so of the future, however, yet at the same time it was an 'evangelist of sea power' rather than as a naval historian pure and simple that he was regarded; journalists, admirals, and statesmen hung upon his predictions and accepted his teachings as a virtually complete doctrine of power-politics. In point of fact, Mahan's mind was too rooted in the past to be much of a success in this field of prophecy.\textsuperscript{112}

During this period, the United States was going through an expansionist phase, desiring to gain territory and influence outside the boundaries of the continent. Chief on the minds of presidents such as Grant were naval bases in the Caribbean and a potential canal across the Isthmus of Panama. This drive was largely unsuccessful through the 1870's and 1880's, because, according to historian George T. Davis, "a war-weary public refused to entertain expansionist plans or to see that the defensive requirements of American policy made a Caribbean base necessary."\textsuperscript{113} It would not be until the Spanish-American War that the United States would gain territory and the bases it desired in the Caribbean. The United States did try to negotiate annexation with Santo Domingo, and many Americans favored intervention in the Cuban uprisings of the period. There was also a tremendous push to get a canal through Nicaragua.\textsuperscript{114}

The Caribbean and Central America were not the only places where the United States had a growing interest. Hawaii and Samoa were inviting as well. Hawaii would be

\textsuperscript{112} Kennedy, \textit{The Rise and Fall of British Naval Mastery}, p. 183.

\textsuperscript{113} George T. Davis, \textit{A Navy Second to None}, p.28.

an important acquisition for access to China. American interests were pushing for commercial expansion because of the tremendous increases in production on the part of American industry. Asia, Africa, and Latin America all had vast potential as markets. The United States became more involved during this period from the mid-1870's through the 1890's in the Pacific Ocean and in China as a result of this push for commercial expansionism.

**American Overseas Expansion**

The 1890's would prove to be the turning point in American foreign relations as the United States grew into a world power. There was the Hawaiian Revolution of 1893 which was led by Americans, but the government in Washington restored the Hawaiian Monarchy. America intervened in the boundary dispute between Britain and Venezuela which resulted in an Anglo-American agreement in 1896 to put the matter to arbitration. Finally there was the war with Spain in 1898. This war and its aftermath brought the United States colonial possessions. The US gained the Philippines, Puerto Rico, and administration over Cuba. The United States by 1900 had become a colonial power.

The United States got its first chance to expand beyond the confines of the North American continent in the Spanish-American War of 1898. President McKinley reluctantly decided to intervene in Cuba. Reported cruelties by the Spanish in Cuba raised American public opinion to a fever pitch. The explosion of the *Maine* provided the necessary excuse to go to war. The war that ensued could hardly be called a war, but resulted in American overseas possessions. Although Cuba was supposed to become independent, the Platt Amendment, stating that the United States had the right to intervene in Cuban affairs,
sharply curtailed that independence. This was especially true with regard to Cuban foreign policy. The United States was also left with the task of pacifying the Philippines which many Americans believed was a necessary possession to have in order to have influence in China. With reference to China, in 1899 John Hay published the Open Door Notes which said in effect that the United States desired equal trading rights for everyone in China.115

Success in the Spanish-American War made the United States a global power. The ability to prosecute the war depended upon the naval superiority of the United States over Spain. Importantly, it was this war which validated Mahan’s theory of sea power. The US Navy bottled up the Spanish fleet in Cuba, and destroyed the Spanish fleet in the Philippines. As a result, the United States was able to win a stunning victory even though land operations, particularly in Cuba, were plagued by logistical problems and in some cases incompetent leadership.

The territorial gains at the conclusion of the Spanish-American War were important to the United States both commercially and in terms of national security needs. For decades, America had been looking to expand into the Caribbean. Prior to the Civil War this had been retarded by the reluctance of Northerners to accept new slave territory, which Southerners desired. After the war, with the issue of slavery resolved, national policy turned to the Caribbean, primarily due to concerns over national security and commerce. If a proposed canal were built across the Isthmus of Panama, the United States would need bases in the Caribbean to secure it. Because of the importance of the canal question,

Secretary of State John Hay signed the Hay-Pauncefote Treaty with Great Britain in 1901 for mutual benefit. The preamble to the treaty states,

The United States of America and His Majesty Edward the Seventh . . . being desirous to facilitate the construction of a ship canal to connect the Atlantic and Pacific Oceans, by whatever route may be considered expedient, and to that end to remove any objection which may arise out of the Convention of the 19th April, 1850, commonly called the Clayton-Bulwer Treaty, to the construction of such canal under the auspices of the Government of the United States, without impairing the 'general principle' of neutralization established in Article VIII of that convention. . . .

The treaty eliminated any British objection to the construction of the canal by the United States. When built, the canal was to remain open to shipping of all nations observing the rules of the treaty. The importance of the canal to the United States would be monumental for it eventually would permit the rapid movement of US naval force from one ocean to the other.

In order to secure the canal and provide necessary coaling and naval bases for US ships in the Caribbean, the United States leased Guantanamo Bay from the Republic of Cuba beginning in 1903. The United States still holds this lease today.

In the Pacific, the Philippines and the acquisition of other islands during this period, including Hawaii, were important to the protection and promotion of commerce in the Far East. Particularly, the United States needed coaling stations for the Pacific Squadron and bases of operation to help enforce the Open Door Notes in order to maintain open trade.

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with China.

**Summary**

The Industrial Revolution occurring in the nineteenth century profoundly affected American naval policy. The most profound effects of industrialization involved technological and economic change. Changes in technology included steam propulsion, a shift from wooden to metal ship construction, armor plating, and improved ordnance. New naval strategy and tactics had to be devised. New logistical problems caused by the need to refuel the ships resulted in the need for overseas coaling stations. The new industrial economy produced surpluses which required overseas markets. A strong navy became necessary to protect expanding commerce.

By the end of the war with Spain, the United States met all six elements of sea power from the Mahanian thesis. In relation to its geographical position, it was bi-coastal, and because of weak neighbors, its military frontiers were on the sea. It also had acquired overseas possessions which required the protection of a strong navy. The physical conformation of the United States was such that it had excellent harbors on both coasts, and major waterways into the interior (like the Mississippi River) which offered easier access to the sea for the people of the country. The extent of coastline relative to the size of the country had increased dramatically as the United States acquired territory and consolidated it over the course of the nineteenth century. The number of people dependent upon the sea had also increased dramatically. Trade from abroad came by sea, and in return, the newly industrialized United States needed to export manufactured and agricultural surpluses in order to maintain a healthy economy. Thus the character of the
people reflected a new appreciation for the sea and the prosperity that it could bring. Finally, the character of the government had become such that the navy and maritime interests received a greater degree of importance, especially in light of the acquisition of new colonies and the need to defend them.

The nineteenth century proved to be the crucible in which the United States was tested, melted, and reforged stronger than before. America began the century as a weak political experiment and ended the century as a strong emerging world power. The events of that one hundred years placed the nation and its navy in a position to become a leader in world affairs in the twentieth century.
Chapter IV: The Twentieth Century

American naval policy during the twentieth century can best be understood in relation to the themes of international relations and technological change. The theme of international relations is evident as the twentieth century has become the American century in world affairs. The United States historically experienced political and geographic isolation. But, because the United States found itself drawn into Europe's wars twice in this century, it could no longer afford to remain isolationist and retreat behind the security of its oceans as in the past. The postwar political climate and technology made this impossible. With the threat of Soviet expansion into Western Europe after the war, and the fact that technology rendered the oceans meaningless as a source of protection and isolation, the United States was forced to become a world player.

The twentieth century has been the most destructive century in the history of mankind. The revolutionary technological progress of the nineteenth century exploded in the twentieth. Advances in industrialism provided the infrastructure necessary to make warfare efficiently destructive. With respect to navies, the twentieth century has spawned the most revolutionary technological changes in maritime history. Navies and naval policy have been impacted by naval aviation, submarine warfare, sonar, nuclear propulsion, submarine launched ballistic missiles, and cruise missiles. Navies are no longer just concerned with protecting lines of communication and blockading the enemy coast. Navies have always been instruments of power projection. Now navies are no longer limited by the range of their guns. Power can be projected far inland by means of naval aircraft and cruise missiles like the Tomahawk. Sea lift capabilities have been greatly improved. There
are few places left on Earth that cannot be touched by the power of a technologically up-to-date navy at the close of this century, particularly by the US Navy.

Of all technological changes that occurred in the twentieth century though, the most important was in communication. In the previous centuries, communication was slow. By the twentieth century, the speed of communication became almost instantaneous. This revolutionized not only naval operations and strategy but also merchant activity. With respect to this change Albion and Pope point out,

Many a Yankee captain, for instance, first heard of the War of 1812 when he was overhauled by a British cruiser or privateer. New Orleans was not the only battle fought after peace had come in 1815; the Constitution fought the Cyane and the Levant off Brazil several months after that. Even in 1865, the Shenandoah destroyed the Yankee whaling fleet in Bering Strait four months after Lee surrendered at Appomattox. Wireless has made all this a very different story in 1939 and 1941. On the whole, however, the development of rapid communication was to help the hunted merchantmen far more than the raiders who pursued them.118

The rapid changes in technology and political climate over the course of the twentieth century have resulted in rapid changes in American naval policy, and therefore the eventual ascendancy of American sea power.

The Great White Fleet

The Great White Fleet symbolized a change in America’s international relations. The ambitious voyage of the Great White Fleet around the world — October 16, 1907 - February 22, 1909 — signaled that America took its new position in the world seriously. Historian Samuel Carter describes the beginning of the voyage by stating,

Sixteen snow-white battleships, guns and brass gleaming, signal flags

118 Albion and Pope, Sea Lanes in Wartime, p. 32.
whipping in the breeze, stretched in a double line from Fort Munroe to the open sea a mile away -- straining like bulldogs at their leashes to set forth on an epoch-making journey. Their declared destination: fourteen thousand miles to San Francisco, though rumor had it they would press on clear around the world. Their ostensible purpose: to allay the fear of Californians that their coast was threatened by Japanese invasion and to convince Japan that she no longer dominated the Pacific. Their were other goals, however. Among them, to impress the world with America's newfound naval might and secure for the country its just role as a power among nations; and too, to stimulate public interest in the navy, and to win support for the still unfinished Panama Canal.  

The Great White Fleet was not just an exercise in public relations. Its purpose as a demonstration of American naval power was real. At the beginning of the twentieth century, a definite rivalry began between the United States and Japan for future mastery of the Pacific Ocean. Only two years earlier in February of 1904, the Japanese Navy had destroyed the Russian Baltic Sea Fleet at the Battle of Tsushima Strait. Suddenly Japan was thrust upon the world stage as a serious naval power. It was likely that American and Japanese interests would collide. The United States had gained colonial possessions in the Pacific including the Philippines after 1898. The close proximity between American possessions and Japan was certain to create tensions between the two emerging powers.

Regarding this tension historian Samuel Carter states,

In world opinion, war between Japan and the United States was a foregone conclusion. The British Admiralty was betting five to four that the Japanese would be victorious. A widely circulated German novel, Banzai, related how the Japanese navy wiped out the American navy and invaded California. President Roosevelt distrusted jingoism, but he was aware of this existing threat. 'My own judgement is,' he said, 'that the only thing which will prevent war is the Japanese feeling that we shall not be beaten.'

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Sending a strong fleet to the Pacific was one way to promote that feeling.\textsuperscript{120}

This tension between the United States and Japan led President Roosevelt in 1907 to ask Admiral Dewey to draw up a war plan in the event that a war with Japan should break out. The War Plan Orange strategy provided that should the Philippines be attacked by the Japanese, the army would retire to Corregidor while the cruisers of the Asiatic Fleet would retire to Hawaii. They would then rendezvous with the battleships of the Atlantic Fleet. The fleet would then assault the Philippines, rescue the troops at Corregidor, and establish forward bases from which to attack Japanese shipping. The navy would then attempt to force a decisive naval engagement with the Japanese Fleet and defeat it. War Plan Orange as originally drafted had one problem. It required a forward staging area somewhere in the Pacific other than the Philippines. Memories of Tsushima Strait were too fresh in the minds of US Navy men, and without a forward base they did not believe that the plan would be successful.\textsuperscript{121}

The cruise of the Great White Fleet did not cause an outbreak in hostilities between Japan and the United States. It was in fact, a public relations success, particularly in South America. The cruise of the fleet around the world signaled American naval power ranked with the Great Powers of Europe. It also had the effect domestically of stimulating interest in the navy and world affairs. According to historian Samuel Carter,

\begin{quote}
But when all is said and done, the cruise accomplished something that Americans could by and large be grateful for. It had roused the navy from its post-Civil War torpor to a position second only to that of Great Britain.
\end{quote}

\textsuperscript{120}Ibid., p. 6.

It had roused the Country from a narrow interest in its own concerns to a broader interest in world affairs. Almost overnight, we had become a major, influential power. It was not a height from which we could look complacently upon the world, but one which challenged our handling of the future.\(^{122}\)

The voyage of the Great White Fleet around the world signified the emerging position of the United States as a world power. The United States Navy had become a respectable force, a dramatic change from a quarter century before when it was effectively a historical relic.

As the world crept toward war in the years between 1905 and 1914, the United States Navy prepared itself for possible conflict. War Plan Orange was modified, and in 1911 the first fully developed version of the plan “was predicated on a war between Japan and the United States erupting over a Japanese violation of the Open Door Policy or aggression against the Philippines.”\(^{123}\) Admiral George Dewey’s greater concern over a possible conflict with Germany, led to the creation of War Plan Black. Germany (with support from Britain and Italy) tried to intervene in Venezuela in 1901-1902 after Venezuela’s dictator, Cipriano Castro, declined to repay $12 million lent by the three European nations. This led to President Roosevelt taking a hard line stance against Berlin, invoking the Monroe Doctrine. The Black Plan was based on the possibility that if Germany tried to gain a foothold on South America, the Atlantic Fleet would deploy to the Caribbean and take whatever action was necessary to reverse German actions.\(^{124}\)

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\(^{122}\) Carter, *The Incredible Great White Fleet*, pp. 177-78.


\(^{124}\) Ibid., pp. 425-428.
Fortunately, War Plan Black never went into effect. War Plan Orange on the other hand, effectively became the strategy for the United States during World War II in the Pacific Theater.

**World War I**

The United States was driven into the First World War for much the same reason it was driven into the War of 1812: trouble on the high seas. Although the United States government tried to keep out of the destructive war in Europe and remain neutral, it proved to be a difficult task. The German Navy attacked American ships and shipping on several different occasions using submarines. The sinking of the *Lusitania* on the 7th of May, 1915 off of Ireland resulted in 1,198 dead, 128 of whom were Americans. The Germans were attempting to interdict trade with Great Britain. This *guerre de course* by German U-Boats severely strained relations between America and Germany and eventually resulted in American entry into the war in 1917.

The problems German actions in the Atlantic posed for the United States were directly related to problems of sea power. The United States was a neutral nation. German unrestricted submarine warfare violated the protections normally afforded a neutral on the oceans of the world.

In order to win the war, the Germans had to gain command of the sea and cut off the enemy's communications. Allan Westcott and his collaborators state,

Germany, meanwhile, was complaining that the vastness of our trade with the Allied powers amounted to favoritism and therefore unneutrality. It is true that the war material we sold to the Allies was used to kill Germans, but we had the undeniable right to sell munitions to the belligerents, so long as it was on an impartial basis. It was no fault of ours that Germany was
too tightly blockaded by English sea power to obtain them, other than by submarines, or that England's control of the sea enabled her to trade freely with us. Yet this one-sided traffic soon brought us to diplomatic grips with Germany.\textsuperscript{125}

Germany declared a war zone around the British Isles on the 4th of February, 1915 which naturally led to problems with the United States. The only effective tool that the Germans had for the job was the submarine. Military necessity drove them to the use of unrestricted submarine warfare in order to enforce their blockade of Britain. The United States had difficulties with both sides' violation of neutral rights. The British engaged in many annoying practices including requiring our ships to put in at British ports to be inspected for contraband. However, as Westcott points out,

our protests to Germany were particularly sharp and uncompromising primarily because her infractions of the recognized law of the sea entailed loss, not merely of property but of lives. Furthermore they involved not extension, as by England, but a growing disreguard of the rules controlling sea warfare. There is a certain fundamental justice in the age-old principles governing the relations of neutrals and belligerents at sea. The high seas are a great common highway open to all, and at the same time an inevitable fighting arena of nations at war.\textsuperscript{126}

It was this clash between free highway and battleground which eventually brought America into the war. Of all the belligerents, Germany made the most egregious violations of international law with respect to the rights of neutrals on the high seas. When the Germans instituted unrestricted submarine warfare on February 1, 1917, and declared that all ships within a specific barred zone would be sunk, the United States was driven to

\begin{flushright}
\textsuperscript{126} Ibid., p. 308.
\end{flushright}

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declare war on April 6, 1917. Prior to declaring war, President Wilson ordered the arming of merchantmen which would be heading to the war zone which surrounded Britain.

When the United States entered the war, the navy was tasked primarily to convoy duty, protecting the lines of communication from German submarines. This important function enabled American troops and supplies to be ferried to Europe. With respect to the navy's role in World War I, Stephen Howarth states,

As far as World War I is concerned, there was for the U.S. Navy, a certain similarity with the Mexican War of sixty years earlier. In both, the Army fought all the headline actions, while the Navy performed essential functions, dangerous but unglamourous. In both wars, those functions included superlatives - during the Mexican War, the biggest landing of troops ever undertaken; during World War I, the biggest convoy of troops. That was the U.S. Navy's primary contribution, and the vital one; but there was more, for in mine laying, antisubmarine warfare, and naval aviation, the fleet took contemporary technology to the limit, pointing the way to the future. No one would deny that infighting, the doughboys were preeminent; but it is worthwhile remembering who enabled them to fight, and how.128

The United States Navy spent the war convoying troops and supplies to Europe. Within six months from April 1917 to November 1917, monthly shipping losses dropped from 835,000 tons to slightly over 250,000 tons.129 The convoy system instituted nightly blackouts and zigzagging independent of weather conditions. Ships were camouflaged using a pattern of lines and squares in different colors called “dazzle painting.” This technique made it difficult to determine a ship's distance or course. Hydrophones, listening

127 Ibid., pp. 310-11.
129 Ibid., p. 311.
underwater for sounds from ships, were also used. These techniques tested during the First World War, would be repeated when the world once again collapsed into war a generation later. Although not playing as glamorous a role as the army during the war, the navy was integral to Allied victory.

The Inter-War Years and Arms Limitation

After the calamity of the Great War, and the recognition that competition between the Great Powers contributed to the conditions necessary for war, governments began to see a need for some sort of arms control. They applied the tools of international relations to the problems posed by technology. Navies were included, because of the battleship arms race which preceded World War I. The Washington Treaties of 1922-1923 attempted to limit the size of the navies of the Great Powers of the world in order to prevent escalation into war. The treaties proclaimed,

The United States of America, The British Empire, France, Italy and Japan; Desiring to contribute to the general peace, and to reduce the burdens of competition in armament; Have resolved, with a view to accomplishing these purposes, to conclude a treaty to limit their respective naval armament, and to that end have appointed as their Plenipotentiaries: [etc., etc.,] Who, having communicated to each other their respective full powers, found to be in good and due form, have agreed as follows: . . .

The Washington Treaties were a series of treaties. The first dealt with naval armament. Others dealt with issues such as insular possessions in the Pacific (the Four Power Pact), submarines and gas warfare, and the Nine Power Treaty relating to China.

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130 Ibid., pp. 310-11.

All of these issues would be pertinent to World War II within just a few years.

The Five Power Treaty signed February 6, 1922 by the United States, Britain, Japan, France, and Italy established a capital ship ratio of 5:5:3:1.75:1.75 in the same order as the nations listed. In order to get Japan to agree to an inferior position in the ratio, Britain and the United States agreed not to continue fortifying naval and military installation within striking distance of the Japanese Home Islands. The Japanese also agreed not to fortify islands and archipelagoes such as Formosa, the Bonins, the Pescadores, or the Ryukus.\(^{132}\) The London Conference which followed in 1930 maintained the capital ship ratio between the United States, Britain and Japan from 5:5:3 and increased the ratio for lighter ships such as cruisers and destroyers to 10:10:7.\(^{133}\) However, by 1934, naval arms limitation would reach an impasse. Japan had demanded naval parity with the United States and Great Britain but could not get it. Therefore, Japan gave the required two year notice that as of December 31, 1936 it would no longer be a party to the Washington Treaties and their limitations. Then on the 18th of June, 1935 Britain and Germany signed an agreement that the German Navy would not build beyond 35 percent of the strength of the Royal Navy. This was de facto permission for Germany to go beyond the previous prohibitions of the Treaty of Versailles and thus rebuild its navy.\(^{134}\) As Robert Albion states,

\[
\text{The naval limitation movement started so hopefully at Washington in 1921-22 wound up with a fourth conference at London in 1935-36, which was}
\]

\(^{132}\) Hagan, *This People's Navy*, p. 266.

\(^{133}\) Ibid., p. 278.

\(^{134}\) Ibid., p. 284.
little more than an Anglo-American "wake" for naval disarmament. Germany had begun to rebuild her navy and Japan had already announced her pending withdrawal from treaty agreements. Both the Americans and British were thus faced with prospects of two-ocean responsibilities.

The stage was set for World War II.

Naval Air Power and World War II

The advances of the Japanese Empire in the 1930's began to arouse concern in the United States. Although the United States had wholeheartedly embraced the war renouncing Kellogg-Briand Pact and continued disarmament under the Quaker President Herbert Hoover, Japanese actions in China and the Pacific began to create second thoughts in the minds of many Americans. Even in the midst of the economic crisis of the Great Depression, the government under President Franklin D. Roosevelt, began to recognize the necessity of naval expansion to counter a potential threat from Japan.

The world had become a very different place after 1919. The Great War and its aftermath changed the face of Europe and the face of war. War had become highly mechanical and incredibly destructive. World War I showed that the submarine was an effective weapon for commerce raiding as well as operations against fleet elements. In addition, there was the realization that the airplane which had shown so much potential in the skies over Europe could have consequences as an adjunct to conventional sea power. Therefore, in order to command the sea, it has become important to exercise control over the air. This was a lesson learned during World War II when it became apparent that control of the air meant control of the land and sea. The ability to exercise control over

both the air and the sea are combined in the aircraft carrier. Thus, during the war in the Pacific, the aircraft carrier surpassed the battleship as the most important ship in the fleet.

The aircraft carrier is a specific example of how technology influences naval policy and international relations. The aircraft carrier is primarily a political instrument, and as such, the aircraft carrier plays a central role as an instrument of coercive diplomacy and deterrence. Therefore, the carrier profoundly influenced naval policy in the second half of the twentieth century. Because of their mission flexibility and great striking power, carriers have been the central pillars of American naval policy during and after the Cold War.

Acceptance of the airplane and carrier as a naval weapon which would make battleships obsolete was not immediate. After World War I, the United States was without any carriers. During the inter-war period, carriers and also submarines were viewed as vessels which would act as a screen for the main battle wagons. With respect to airplanes, conservative officers in the navy were skeptical about the effectiveness of the new device against armored battleships given the contemporary state of aviation technology. They debated policy with emerging prophets of air power such as Billy Mitchell who had pushed for a unified air command. Even naval exercises utilizing aircraft during the interwar period were not enough to sway the minds of many policy makers as to the important role the airplane would make in future naval combat. It was not that they saw no role for naval aviation, in fact many in the navy saw it as having value. Instead, it was a question of what kind of ships the fleet would be centered on. Conservatives in the navy still believed that the main strength of the fleet should be battleships. When Mitchell’s planes sank the Ostfriesland during an exercise in 1921, the navy was angry because Mitchell had
effectively broken the rules of the exercise by sinking the ship, and therefore they gained no
information on bomb damage.\textsuperscript{136} Referring to the future of the battleship, Mitchell stated,

\ldots a battleship \ldots may cost from 50 to 70 million dollars. It has to be
protected by submarines, destroyers, cruisers, and aircraft, the total cost of
which is around 100 million dollars \ldots I believe that a battleship today is a
useless element in the national defensive armament of the United States.
Suppose we had even one-half of the cost of a battleship to use in the
development of our aircraft and submarines.\textsuperscript{137}

Mitchell made this statement while commenting on the crash of the navy airship
U.S.S. \textit{Shenandoah}. Mitchell criticized the army and navy for being negligent and paying
poor attention to aviation.\textsuperscript{138} These public comments resulted in his court-martial.

\textbf{World War II}

On the 7th of December, 1941 the Imperial Japanese Navy attacked the US Naval
Base at Pearl Harbor, Hawaii. This attack was intended to eliminate American sea power
in the Pacific. The attack carried out by approximately 350 aircraft from six carriers
resulted in the sinking of four battleships and serious damage to four others. It was a
surprise attack which proved once and for all that naval aircraft were capable of sinking
battleships. Luckily, the two American carriers which had been at Pearl earlier in the week
were at sea. As Kenneth Hagan states,

\begin{quote}
The carriers \textit{Lexington} and \textit{Enterprise} were safely at sea on 7 December
1941, delivering airplanes to Wake and Midway islands. Their survival,
coupled with the now proven efficacy of naval aviation, meant that the
aircraft carrier would almost immediately become the main American
\end{quote}

\textsuperscript{136} Howarth, \textit{To Shining Sea}, pp. 332-33.


\textsuperscript{138} Ibid., pp. 218-22.
combatant of the surface war in the Pacific.\textsuperscript{139}

Had the two carriers been caught in Pearl Harbor, future operations against the Japanese could have been more seriously hampered than they already were.

World War II in the Pacific was a carrier war. Without carriers available to project air power forward of the reach of American airbases, it is doubtful that the United States could have defeated Japan. The effect of the carrier was revolutionary. The Battle of the Coral Sea, May 4-8, 1942, was the first naval battle in which the combatant ships never saw one another. Although the battle resulted in the first real victory against Japan, the US lost the carrier \textit{Lexington}, and \textit{Yorktown} was damaged. The victory was strategic for it prevented the Japanese from assaulting the Allied base at Port Morseby, New Guinea and slowed down their momentum.\textsuperscript{140}

The Battle of Midway, June 3-6 1942, was probably the most important naval battle of the war. The carrier proved to be the most important and valuable vessel in the battle. The Japanese had four carriers to the American's three. The Japanese believed that surprise was on their side, however, a squadron of American torpedo bombers found the Japanese fleet first. Although the torpedo bombers raid was unsuccessful, American dive bombers caught the Japanese carriers rearming planes to strike ships instead of Midway Island. In the ensuing battle, the Japanese lost four fleet carriers, the \textit{Hiryu}, \textit{Akagi}, \textit{Kaga}, and \textit{Soryu} as well as the associated veteran aviators. The US lost only the \textit{Yorktown}.\textsuperscript{141}

\textsuperscript{139} Hagan, \textit{This People's Navy}, p. 306.

\textsuperscript{140} Howarth, \textit{To Shining Sea}, pp. 402-03.

\textsuperscript{141} Hagan, \textit{This People's Navy}, p. 313.
The Battles of the Coral Sea and Midway signified that the capital ship of the future was no longer the battleship but the aircraft carrier. The effect of this fact after Midway made the House Naval Affairs committee approve the construction of 500,000 tons worth of aircraft carriers and scrap plans to build five *Montana* class super dreadnoughts. Recognized supremacy of the aircraft carrier over the battleship had come at last.

The United States Navy found itself the most powerful navy in the world after World War II. It also found itself in the nuclear age. During the Cold War, the themes of technology and international relations became inseparable. The unprecedented destructiveness of nuclear weapons changed the relationship between technology and international relations. Technology had been a tool of international relations. Now technology was capable of controlling international affairs. The atomic bomb, and later the hydrogen bomb dramatically affected the role of the navy in the post war world. Suddenly the navy became involved with nuclear deterrence. As nuclear weapons improved and shrank in size, it became possible for the new jet aircraft flying off carrier decks to carry a nuclear weapon into Soviet territory if the need arose. The US Navy was now involved in the high stakes strategy of nuclear deterrence.

**The Cold War**

When World War II ended, attention turned to the Soviet Union. The Soviet Union was a land power. At the end of World War II it did not have much of a navy. What then, was the role of the US Navy in relation to the Soviet Union? With no real threat from the Soviet Navy and no real advantage to be gained from *guerre de course* on

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142 Ibid., pp. 313-14.
Soviet shipping, the US Navy had to find a new role to play. It found one as an instrument of nuclear deterrence. The aircraft carrier, so important to American victory in the war, became a platform for nuclear deterrence. The aircraft on board could be armed with nuclear weapons. The navy could project power by threatening bases and installations on the periphery of the Soviet Union with nuclear attack.\(^{143}\) This ability to threaten the Soviet Union with nuclear attack from the sea led the Soviet Union to place greater importance on their own navy. This began a period of naval expansion on the part of the Soviet Union in relation to the United States. In 1956, Admiral Sergei Gorschkov was given command of the Soviet Navy, and served as Commander in Chief until his retirement in 1985.

Gorschkov transformed the Soviet Navy from a coastal defense force into a blue water navy which could rival the navy of the United States.\(^{144}\) During his tenure, Gorschkov was responsible for the modernization and growth of the Soviet Navy. Gorschkov eliminated all pre-World War II ships, as well as ships taken as prizes from the Axis countries. Then, following the directives of the post-Stalinist government, Gorschkov oversaw the development of smaller missile armed ships and submarines which could counter the US Navy which had gone through a period of re-expansion during the Korean War.\(^{145}\) By the 1960's the Soviet Navy had expanded to the point where its ships were beginning to maintain a global presence. Howarth points out that the growth of the Soviet Navy,


\(^{144}\) Howarth, To Shining Sea, p. 560.

bucked the pattern of the past, having developed beyond the Soviet Union’s natural geographical constraints. And it is notable that in this century only one other naval nation of major significance has done that: namely, Germany, under both the Kaiser and Hitler. Young and ambitious (Germany was united into one nation only in 1871), it twice deliberately created a war capable fleet; yet with a coastline far shorter than its land frontiers, this was in defiance of its own geography. The Soviet Union, united only in 1922, is [was] still a young country; it certainly has been ambitious; and navally speaking, its geographical constraints are similar to those of Germany.146

The Soviet Navy, large by the end of the 1980's, was striving to control the sea in the same manner as the US Navy. By the beginning of the 1990's with the demise of the USSR imminent, the Soviet Navy had five tasks to carry out: it was to “participate in strategic strike operations” with its SSBN force, “participate in defense of the homeland” by eliminating potential threats before they came within striking range of the USSR, “support operations of other forces conducting strategic missions” through joint or combined operations with other sea-air-land forces, “interdict lines of communication” by preventing the resupply and reinforcement of NATO and allied forces in either Europe or Asia, and “support state policy in peacetime” by showing the flag and supporting global policy interests.147

Although the Soviet Union did not conform to Mahan’s six criteria for sea power, Gorchkov’s reforms successfully produced a world class navy. The Soviet Navy under Admiral Gorchkov is a perfect example of a continental power’s application of sea power. The four functions of a continental navy described by Clark Reynolds are to defend against

146 Howarth, To Shining Sea, pp. 560-61.
invasion, engage in combined operations with the army, commerce raiding, and sea denial or deterrence. The Soviet Navy fulfilled all of these roles.

Atomic bombs dropped from jets were not the only nuclear age advancement involving the US Navy. In 1955, the *USS Nautilus* made its maiden voyage. The *Nautilus* was the world's first nuclear powered ship and demonstrated the feasibility of nuclear power for naval vessels.\textsuperscript{148} Nuclear power was a revolutionary technological leap in submarine technology. Nuclear propulsion combined with carbon dioxide scrubbers meant that a submarine could remain submerged almost indefinitely. Its underwater endurance was only limited by the endurance of the crew. Effectively, this meant that *Nautilus* became the first true submarine, as opposed to a surface boat which could submerge for short durations. Nuclear power also eliminated the need for fuel stops, important since the age of steamships.

It was only a matter of time before the limitless endurance of the nuclear-propelled submarine was combined with the new technology of the intercontinental ballistic missile. In the 1960's the United States introduced its first *Polaris* missile boats. These submarines carried sixteen *Polaris* ballistic missiles in vertical launch tubes.\textsuperscript{149} The Ballistic missile submarine was born, and the age of the "Boomer" began. Nuclear subs armed with ballistic missiles gave the US Navy a true nuclear deterrent capability and completed the strategic nuclear triad of missile submarines, ICBM's, and nuclear armed bombers. The navy had a weapon system which was stealthy, and carried immense firepower. With this new system

\textsuperscript{148} Hagan, *This People's Navy*, p. 349.
\textsuperscript{149} Ibid., pp. 351-52.
the US had a credible second strike capability which made deterrence a credible strategy for maintaining peace.

As American naval policy moved toward nuclear deterrence, the Soviet Union responded by expanding its own navy. Rapid expansion of the Soviet Navy under Admiral Gorschkov alarmed policy makers in the United States. During the 1970's the concept of the 600-ship navy emerged to counter the Soviet naval threat.

The US Navy was not just involved with nuclear deterrence during the last half of the twentieth century. It proved to be of immense value and importance during the wars and proxy wars that the United States was involved with during the Cold War. American aircraft carriers were the first to react when North Korea invaded South Korea, and proved invaluable to America's prosecution of that war. The navy's support of the landings at Inchon was also invaluable. The Korean conflict also saved naval aviation from doom because of competition from land based air power. It showed that aircraft carriers were of utmost importance in projecting military power abroad in the post World War II world.\(^\text{150}\)

Vietnam happened to be a war in which the navy played an important role. Air strikes took place from carriers. Operation Game Warden utilized PBR's (Patrol Boat River) which patrolled the Mekong Delta in order to prevent the Viet Cong from moving men and supplies in the area.\(^\text{151}\)

The biggest change in naval policy in the past twenty years was the move toward the 600-ship navy. As the United States began to fall behind the Soviet Navy due to

\(^{150}\) Hagan, *This People's Navy*, p. 341.

\(^{151}\) Ibid., pp. 371-75.
Admiral Gorschkov's reforms, alarm began to spread in the US naval community.

Concerning this problem, Stephen Howarth says,

President Carter had expected that the study (Sea Plan 2000) would give him a basis for naval reduction. Instead, it demonstrated that the Navy had fallen behind the Soviet Navy and offered him four alternatives: First, do nothing and let matters slip further; second, build only enough to avoid further slippage; third, build more to regain parity; or fourth, build a lot more and regain the lead. Carter found the first, second, and fourth options unacceptable, and toward the end of his term he began option three, building more to regain parity. In 1981 the new President Reagan and his Secretary of the Navy, John Lehman, inherited Sea Plan 2000 and, regarding the Carter choice as an absolute minimum, they easily decided to go beyond it and take up option four.\(^{152}\)

By the mid 1980's the national maritime strategy predicated on a 600-ship navy based on the following: “fifteen carrier battle groups, four battleship surface action groups one hundred attack submarines, ballistic missile submarines, MAF-Plus-MAB assault echelon lift, one hundred to one hundred ten frigates, thirty one mine countermeasures ships, support ships to match.”\(^{153}\) The goal for a 600-ship navy was nearly met. Although the US Navy never ended up with 600 vessels, it had approximately 574 ships by 1990. Of those 574 ships, 15 of them were attack carriers. It also had 100 attack submarines which had been its goal.\(^{154}\)

With the end of the Cold War, the role of US naval power has turned from nuclear

\(^{152}\) Howarth, To Shining Sea, p. 568.


deterrence to the projection of conventional power. Because many American military bases world wide have been shut down, the US Navy finds itself bearing more of the burden in terms of showing the flag. In many cases the only available air power comes from carriers because land bases are either too far away or they no longer exist. Although the need for nuclear deterrence remains, American carrier groups have increasingly been called upon to respond to threats in the Third World and other regions where US interests are at stake particularly in the Middle East.

**Sea Power Example: American Naval Operations in the Persian Gulf**

American naval policy during the closing decades of the twentieth century has been increasingly oriented toward the projection of power in the Middle East. This is especially true of the Persian Gulf. Increasingly, the United States has maintained a naval presence in the Persian Gulf in order to provide stability and permit the uninterrupted flow of oil out of the region. The Persian Gulf is one of the most strategically important regions of the world. It has been for centuries. In the past it was in the middle of the Silk Road and other ancient trade routes to Asia and India. Today it is strategically important because of the oil resources which lie under the countries of the region. In contemporary times, because of its strategic nature, the Persian Gulf has proven to be of immense interest to western powers. This was especially true of the British during the nineteenth and twentieth centuries. The British needed control in the Gulf area to protect lines of transport and communication with India. For this reason, the Persian Gulf was a British Lake. However, after the end of World War II, in the process of decolonization, the British presence in the region slowly diminished. In 1968, the British Government announced that it would
withdraw all of its forces east of the Suez Canal. When this occurred, the security arrangements for the region changed. Iran, Iraq, and Saudi Arabia emerged as the major players. During the early 1970's, President Richard M. Nixon was concerned with security in the region vis-à-vis the Soviet Union. At the time, he was not in a position to commit forces there to keep an eye on things. The policy which emerged to fill the void left by the British withdrawal was President Nixon's "Twin Pillars" Policy. The Twin Pillars were Iran under the Shah, and Saudi Arabia. These two nations would insure security and stability in the Persian Gulf. When the Soviet Union invaded Afghanistan in 1979, alarm bells went off in Washington. Because of the fear that the Soviet Union might use Afghanistan as a staging point for operations against Iran and the Persian Gulf, President Carter issued the Carter Doctrine which promised US intervention in the region in order to insure stability, and he also pledged to create a Rapid Deployment Force.

1979 was not a good year for American interests in the Persian Gulf. In January, Shah Mohammed Reza Pahlavi was forced out of power and the nation of Iran fell into anarchy. One of Nixon's "Twin Pillars" had crumbled. Iranian "students" stormed the US embassy in November, 1979, and held American hostages for 444 days. A power vacuum suddenly existed in the Gulf, and Iraq stepped in to fill the void.

On the 22nd of September, 1980, a fifty-thousand strong Iraqi army attacked four strategic junctions along the Iraq-Iran border, signaling the beginning of an eight year long

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156 Ibid., p. 90.
blood bath. Saddam Hussein’s goal was to take advantage of the anarchy in Iran to gain possession of the Shatt al-Arab, a waterway to the Persian Gulf. What resulted was a galvanization of the Iranian people and a long, drawn out war which ended with the status quo antebellum. The war dragged on until the negotiation of a cease fire in mid-summer 1988.

This war, in a strategically important region of the world, would require the United States Navy to increase its presence in and around the Persian Gulf. The year 1987 would prove to be a particularly eventful year for the United States Navy in the Persian Gulf. Repeated attacks by Iranian speedboats upon shipping in the Gulf resulted in a request by Kuwait to the United States to allow its tankers to be reflagged and escorted by US Navy vessels. 1987 would also see reprisal attacks upon Pasadran bases on oil platforms and the tragic missile attack on the USS Stark by an Iraqi plane.

The Tanker War began in 1981 with Iraqi attacks on shipping going to and from Iranian ports in the Northern Persian Gulf. The Iranians would not contribute to the Tanker War until 1984. The purpose of these attacks on shipping is one of the oldest in naval warfare. It is intended to disrupt the trade of the enemy nation. It is economic warfare. Iraq relied primarily on land based aircraft and missiles as instruments of sea-control. Iraq did not have a very large navy, and what large vessels it did have were put into mothballs in Italy. Iran on the other hand had a fairly sizeable naval force in the region. However, most of the attacks on shipping carried out by the Iranian forces in the

Gulf were not carried out by ships of the Iranian Navy. Rather, the attacks were carried out by the Pasdaran, irregular troops loyal to the Revolution. They carried out the attacks using speedboats of Swedish or American manufacture. These speedboats were lightly armed. Usually they carried only a couple of light machine guns and rocket propelled grenades. These speedboats were only really capable of damaging a supertanker rather than sinking one.

The Tanker War was not limited to tankers flying the flags of the belligerent parties. Like the unrestricted submarine warfare carried out by German U-Boats during the world wars, the shipping of other nations which traded with Iran and Iraq became fair game. From an economic standpoint, the Tanker War did not pose a tremendous threat to Iraq. Iraq transported most of its crude oil by pipeline. However, both Saudi Arabia and Kuwait backed Iraq and were heavily dependent upon tankers to export their oil. These ships were attacked along with the ships of other nations, including Liberia, the United Kingdom, the Soviet Union, and Japan. Nevertheless, tankers continued to fill up in all the nations surrounding the Persian Gulf, and the oil continued to flow out without an appreciable rise in price despite the threat the belligerents posed. It was amidst this Tanker War where the United States Navy became prominently involved.

With respect to Iranian operations in the Persian Gulf, the preferred instrument of the Pasdaran for attacking freighters is the speedboat. Utilizing machine guns and rocket propelled grenades, the Pasdaran used hit and run tactics to damage ships. These speedboats used five oil drilling platforms as bases for operations. On October 19th, 1987 the US Navy responded to a mine which had damaged the frigate Samuel B. Roberts.
Navy vessels attacked two platforms and destroyed them with over 1000 rounds of five-inch ammunition. However, even with such a reprisal, speedboat attacks on shipping continued.

In late 1986, Kuwait petitioned the United States to reflag its tankers and provide escort for them. At the same time, the Soviet Union offered Kuwait the same thing and also offered to charter Soviet tankers instead if necessary. Of eleven tankers, the Kuwaitis decided that they would reflag six as US and five as Soviet. The United States, alarmed at the prospect of growing Soviet influence in the Gulf, told Kuwait in March of 1987 that it would be willing to reflag all eleven tankers as American.\textsuperscript{158} The first tanker escort occurred in July of 1987. Disaster occurred as the tanker SS \textit{Bridgeton} struck a mine laid by the Iranians. However, even with this initial setback, the convoys went on.

Iranian mines would prove to be a thorn in the side for the US Navy. Iran began laying mines in the Gulf. Most of the ships deployed to the Gulf by the US were not prepared to deal with mines. The only asset immediately available to the US Navy were helicopters flown off of amphibious warfare ships. The United States had difficulty deploying its own minesweepers to the Gulf, and so it would have to rely on minesweepers from allied nations. The United States had one major success in the war on mines. On the 21st of September, 1987 US Army Special operations helicopters operating off a Navy frigate captured the \textit{Iran Ajr}, an Iranian landing craft which was being used surreptitiously

Mines and speedboats were not the only concern facing the US Navy with regards to Iranian aggression. The Iranians had procured Chinese-made Silkworm anti-ship missiles which could be fired from shore installations. These missiles had the capability of not just damaging, but of sinking ships. On the 15th of October, 1987 Iran fired a Silkworm missile from the Fao Peninsula at the Sungari, a US owned and Liberian-flagged tanker lying at anchor nine miles off Kuwait. This resulted in damage to the ship but no casualties. The next day, another Silkworm hit the reflagged Kuwaiti tanker Sea Isle City. This resulted in damage to the ship and eighteen injured crewmen. The Silkworm presented a dangerous threat to international navigation of the Persian Gulf. Using mines and Silkworms, Iran threatened to close the Strait of Hormuz. However, the United States made it clear that such an action would result in massive reprisal. A carrier battle group was stationed just outside the Gulf in the Arabian Sea to act just in case such an incident occurred. The Iranians however, were not the only ones to damage ships with anti-ship missiles.

On the 17th of May, 1987 the US frigate, USS Stark was struck by two Exocet missiles fired from an Iraqi Mirage F1 aircraft. The attack left thirty-seven Americans dead. This attack was a mistake. At the time, Iraq was our ally and so it would have

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160 Ibid., p. 33.

been difficult to justify a reprisal. The investigation concluded that the pilot of the Iraqi
aircraft mistook the Stark for a freighter on its radar. Mistakes were also made on the part
of the Stark’s crew. Although warned about the presence of the Iraqi plane by an AWACS
plane, the crew failed to take recognize the possible threat. Also there was some question
as to whether or not the sensors on board the Stark were able to give a timely warning
before the incoming Exocet missiles struck. The missiles were spotted visually by
lookouts, which meant that there was no time for warning. The Stark was also supposed to
be operating in Condition-III which means that all sensors and weapons stations were to be
manned. However, the Stark did not have its chaff launchers on, nor was its Phalanx
CIWS (Close in Weapons System) turned on. These were meant to protect it incase of a
missile attack. The Stark took two missiles, of which the warhead of the first missile was a
dud. However, the crew did a fantastic job with damage control and the ship survived.

The Stark incident was not the only tragedy to involve the US Navy during
operations in the Persian Gulf. On the 3rd of July, 1988 the USS Vincennes shot down an
Iran Air passenger jet over the waters of the Persian Gulf. This tragic accident claimed the
lives of 224 adults and 66 children. It was the sixth worst air disaster in history.

All told, the Tanker War resulted in a total of 451 attacks on ships by the
belligerents from 1981 through 1987. Of these attacks, 283 were perpetrated by Iraq and

162 Ibid., p. 66.
163 Ibid.
164 Ibid.
165 Sandra Mackey, The Iranians: Persia, Islam, and the Soul of a Nation, (New York:
The total number of people killed in these attacks from 1984 through 1987 was 116. Ships attacked included oil tankers, cargo freighters, and tug boats. Anything that could carry some kind of good was attacked.

The US naval presence in the Persian Gulf during the Iran-Iraq War existed for several reasons. Soviet activity in Afghanistan and a revolutionary Iran posed one threat to stability. The potential threat to the flow of oil to the rest of the world posed another threat to stability. The United States Navy played the role of deterrent and crossing guard during the war. Its object as a deterrent was to place a check on possible Soviet expansion into the region by maintaining a visible presence. It also functioned as a deterrent to closure of the Gulf by one of the belligerents, especially Iran. And of course it acted as a crossing guard by escorting tankers and assisting ships in distress.

The United States was far from the only nation to maintain a military presence in the Gulf for the same reasons. NATO members, especially France and Britain maintained sizeable numbers of assets in the Gulf. Belgium, Italy, and the Netherlands all contributed some assets. The Soviet Union did as well. Policing the Persian Gulf in the midst of one of the longest and bloodiest conflicts was an international task.

The Iran-Iraq war has been over for ten years now. The Soviet Union has collapsed and is no longer a direct threat to the regions' stability. Yet the United States continues to maintain a strong naval presence in the Gulf. Military success in the Persian Gulf War of 1990-1991 depended on the US Navy. The navy served several important functions. It

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166 O'Rourke, "The Tanker War," p. 31.
167 Ibid., p. 32
provided sea-lift capabilities, moving troops and heavy equipment to the theater of operations. Without this logistical capability, the United States would have been unable to prosecute the war. It committed six carrier battle groups to the region, fired approximately 300 Tomahawk missiles, and flew 4,700 aircraft sorties in the first thirteen days of the war. The navy destroyed oil platforms being used as SAM sites, and the battleships *Missouri* and *Wisconsin* were involved in shore bombardment off the coast of Kuwait. The US Navy also kept its ships stationed in the Mediterranean, the Red Sea, and the Persian Gulf effectively surrounding Iraq on three sides.\(^{168}\)

The aftermath of the war left Saddam Hussein still in power. He is still the biggest threat to the security of the region. Although he lost the war and has been subject to United Nations sanctions and inspections, he continues to be a threat. The United States Navy along with other US forces maintain a presence in order to deter Hussein from further aggression and to coerce him, by force if necessary, to comply with United Nations inspections. As we have seen over the course of the past several years, Saddam Hussein frequently stands up to the United States and United Nations and at the last minute, when the use of force is imminent, he backs down. The US Navy has been and will continue to be an integral part of the forces keeping Iraq in check.

The presence of the US Navy in the Persian Gulf will probably continue into the twenty-first century as long as the region continues to remain unstable. Iraq continues as an adversary while the United States seeks to improve relations with Iran. What changes the future will bring in terms of balance of power and stability remain to be seen; but as

long as the Persian Gulf, and indeed the entire Middle East remain strategically important and the threat of conflicts continue to loom, the US Navy will need to be capable of responding to any crisis.

The Future of the US Navy

The twenty first century will challenge American naval policy in new ways. As low intensity conflicts, humanitarian intervention, and anti-terrorist activities increasingly involve the United States, the navy must have the flexibility to meet the new challenges. It is quite unlikely that we will ever again see large scale naval actions on the high seas. Navies are expensive to build and maintain. Only a few nations in the world have the need and the resources to maintain large navies. Technology is rapidly rendering sea-keeping navies as we know them obsolete. This does not mean that navies will be irrelevant. Quite the contrary, navies will still be important for power projection if a nation wishes to wield global influence. It is their size, composition, and missions which will change.

The US Navy's mission in the post Cold War world is shifting from open ocean operations and warfare to operations in the littoral, or coastal regions. The last action fought by the US Navy against another fleet was Leyte Gulf. With the demise of the Soviet Union, there is no navy left in the world to challenge the US Navy on the high seas. The conflicts of the past fifty years involving American naval power have taken place near the coast. Given this trend it is safe to assume that it will continue. The American navy has begun to reflect the shift from control of the high seas to control of the littoral regions.

This shift in direction from the Cold War strategy of control of the high seas to

169 Howarth, To Shining Sea, p. 569.
operations in the littoral is part of the post-Cold War military strategy. In his article, "U.S. Forces: Challenges Ahead," published in the Winter 1992/93 issue of *Foreign Affairs*, Gen. Colin Powell writes,

> The new national military strategy is an unclassified document. Anyone can read it. It is short, to the point and unambiguous. The central idea in the strategy is the change from a focus on global war-fighting to a focus on regional contingencies. No communist hordes threaten western Europe today and, by extension, the rest of the free world. So our new strategy emphasizes being able to deal with individual crises without their escalating to global or thermonuclear war.\(^{170}\)

For the navy this new strategy which places greater emphasis on joint and combined operations was publicly articulated in the Navy and Marine Corps White Paper *From the Sea: Preparing the Naval Service for the 21st Century*. This paper describes the new shift in naval policy from high seas operations to operations in the littoral. It states:

> Our ability to command the seas in areas where we anticipate future operations allows us to resize our naval forces and to concentrate more on capabilities required in the complex operating environment of the "littoral" or coastlines of the earth. With the demise of the Soviet Union, the free nations of the world claim preeminent control of the seas and ensure freedom of commercial maritime passage. As a result, our national maritime policies can afford to de-emphasize efforts in some naval warfare areas. But the challenge is much more complex than simply reducing our present naval forces. We must structure a fundamentally different naval force to respond to strategic demand, and that new force must be sufficiently flexible and powerful to satisfy enduring national security requirements.

It goes on to say:

> This strategic direction, derived from the National Security Strategy, represents a fundamental shift away from open ocean warfighting on the sea toward joint operations conducted from the sea. The navy and marine corps will now respond to crises and can provide the initial, "enabling" capability

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for joint operations in conflict - as well as continued participation in any sustained effort. We will be part of a “sea - air - land” team trained to respond immediately to the Unified Commanders as they execute national policy.171

As cruise missiles become cheaper and more accurate, it is probable that policy makers will choose to change the composition of the navy by moving away from many types of surface ships and increasingly build more submarines. The submarine and the cruise missile are to the twenty-first century what the aircraft carrier and the airplane were to the twentieth century. The carrier will not disappear from the seas. It will remain an integral and important part of the fleet. However, its dominance compared to other vessels will probably be reduced. The carrier is beginning to approach senility. It is still capable of carrying out its mission, but at an increasingly expensive cost relative to newer and cheaper technologies which are equally or more effective, such as the submarine and cruise missile combination.172 For example, although it can launch cruise missiles through its torpedo tubes, the 688i class attack submarines are equipped with twelve vertical launch tubes specifically intended for the Tomahawk cruise missile. This allows the submarine to carry a full compliment of torpedoes, anti-ship missiles, and mines, and still attack a dozen targets with cruise missiles. It is this flexibility which makes the submarine a very effective and versatile weapons platform.173 In addition, it is possible that the proposed “arsenal ship”


carrying an array of 500 - 750 cruise, anti-ship, anti-sub, and anti-air missiles will play a
critical role in force planning and strategy, particularly with respect to operations in littoral
regions. Proliferation of advanced precision guided munitions will make it increasingly
difficult for traditional methods of naval power projection to be effective.¹⁷⁴

There is another important variable besides raw technological improvement that
needs to be considered with respect to future naval policy. That variable is public opinion.
The Persian Gulf Conflict of 1991 brought the immediate effects of war into our homes via
CNN. The American public was awestruck by the incredible accuracy shown by gun
camera footage as bunkers and bridges were systematically destroyed. The war had a
sanitary, almost unreal and even entertaining appearance.¹⁷⁵ Over the course of the decade,
technology has steadily improved, and the instant availability of information to the public
through television, the radio, and the Internet has established conditions that are new.

Historically, the media have had an effect on public opinion regarding war and
peace. However, what is new is the speed with which the information arrives to the public
at large and the speed with which they can make their opinions felt. The speed and scope
of information dissemination does not just affect domestic opinion, but also international
opinion. As markets and information systems globalize, people all over the world receive
nearly up-to-the-minute information on global events. Therefore, policy makers are faced
with a new quandary. How does a policy maker make decisions effectively when flooded
with public demands? In most circumstances it is probably safe to say that a policy maker

¹⁷⁴ Friedman and Friedman, The Future of War, pp. 395-411
¹⁷⁵ Howarth, To Shining Sea, p. 564.
is in a more informed position in a holistic sense than the average member of the public at large. Because we live in a society in which the policy makers are ultimately responsible to the public, how does someone in a position of responsibility make and execute a sound decision with instant public pressure to do one thing or another? This question, the rapid dissemination of information, and its effect on public opinion in the United States certainly will affect naval policy in the future.

Summary

The theme of international relations played an important role in twentieth century American naval policy. The United States emerged from political isolationism to participate in two world wars. Following World War II, America became one of two superpowers exercising world-wide influence. The end of the Cold War left the United States as the only remaining superpower. Throughout the twentieth century, the navy was integral to the projection of American power and influence.

The twentieth century also brought unparalleled technological change. Naval aviation, the submarine, nuclear weapons, and strategic missiles all revolutionized maritime warfare. These new technologies allowed the United States Navy to project unprecedented strategic power. The navy is no longer limited by the range and power of its guns. Submarine-launched, ballistic missiles can strike deep into the heart of a continent from mid-ocean. Aircraft like the F/A 18 Hornet and the Tomahawk cruise missiles allow the navy to project power hundreds of miles, and strike targets with unparalleled precision. Today, there are few places on Earth which cannot be touched by the US Navy.
Chapter V: Conclusion

This thesis examined the development of American naval policy in relation to the four themes of technology, economic change, domestic politics, and international relations. In chapter one, we examined the concept of sea power and command of the sea introducing the ideas of Captain A.T. Mahan and his six criteria for sea power. Chapter two covered naval policy during the years of the Early Republic, concentrating on the relationship between policy and domestic politics and international relations. Chapter three discussed naval policy in the context of the industrial revolution and the nineteenth century. It focused primarily on the relationship between technology and policy as well as economic change and policy. The fourth chapter examined naval policy from the beginning of the twentieth century to the present. Naval policy was discussed in relation to all four themes, but most importantly technology and the change in America's world position.

As we enter the twenty-first century, the nature of naval power and sea control is changing. The end of the Cold War has made the US Navy undisputed master of the seas. With the exception of a few regional conflicts, the world is basically at peace. There is no looming conflict between any of the world's great powers. We have entered the age of the Pax Americana. Given the prevalence of peace, is it necessary for the United States to maintain a presence on all of the world's oceans? I would argue that it is imperative. Although the world is generally at peace, regional conflicts and unrest threaten United States interests all over the globe. The navy is in many cases the most visible representative of those interests. The presence of a carrier group off shore can be an incentive for a potentially rogue regime to control its behavior. If necessary, the navy can
launch an immediate military response with cruise missile strikes, air strikes, or by landing Marines ashore. Maintenance of a strong navy is crucial to continuing the *Pax Americana*.

Another question that must be asked is whether Mahan's six criteria for sea power still relevant in light of modern realities? I would argue that they are. The importance of sea control has not changed, and therefore Mahan's six criteria of sea power (geographical position, physical conformation, extent of territory, population, character of the people, and character of the government) still hold validity.

Geographical position retains relevancy to the present. The United States is situated on two great oceans over which billions of dollars worth of commerce annually flows. This position requires the United States to maintain a naval presence in both oceans. In Mahan's time, the Atlantic Ocean carried the bulk of international commerce, and therefore it was the most economically important ocean. Today, with the economic prosperity that has taken hold in the countries of the Pacific Rim, the Pacific Ocean carries as much, if not more traffic than the Atlantic. Because the United States borders both oceans, it is in a geographical position to control both, which it does.

Physical conformation remains relevant today. America is blessed with excellent harbors on both oceans. It produces both agricultural and industrial surpluses for sale abroad. The extent of coastline on both oceans, along with excellent harbor facilities, allows the United States to be a center of international trade.

The extent of territory relative to population is the third geographical criterion for sea power. America has a population large enough to take suitable advantage of, and defend the coastal facilities. Therefore, the extent of the coastline relative to our large
population gives us a source of strength for we have the population resource to defend it. In reality though, this criteria has diminished in importance since Mahan's time. The advent of long range weaponry, aircraft, and precision guided munitions allows a nation with a smaller population relative to its coastline to defend it more successfully today than one hundred years ago.

The population of the United States is sufficient for maintaining a strong navy and supporting American maritime industries and interests. This is a period of unparalleled national prosperity, and the tax revenue flowing into government coffers allows the country to support an expensive and technologically advanced navy. Young people exiting high school who either cannot afford college or are undecided provide a resource of potential naval personnel. The modern navy provides training and experience which can be practically applied to civilian life.

The character of the American people is generally commerce minded. American workers have an important stake in exporting goods abroad. The success of e-commerce on the Internet, and the globalization of the economy is providing thousands of new jobs. This along with the ability to receive information about the rest of the world nearly instantaneously is giving the American people greater international awareness. The people of the United States increasingly have a stake in international events which effect them now more than ever.

The character of the government is one that encourages international commerce. That the United States is a member of the World Trade Organization and has entered into the North American Free Trade Agreement with Canada and Mexico is a testament to this
fact. The United States government has interests which are global. In many cases they are economic, and in some cases they are humanitarian. The character of the government is such that it is necessary to maintain a navy to help preserve its interest in international commerce and world events.

Mahan's six criteria are still valid in today's world. It is imperative that the United States continues to maintain a strong navy to support its interests and be a stabilizing influence in the world. Without a strong navy, America could easily lose its influence and position in the world. If we view this country as a force for moral good and a beacon of hope for the world, it is necessary to have the best navy in the world.

American naval policy has had a long development over the past two hundred and ten years. The progression from the era of solid shot to the era of Tomahawk involved considerable change. Policy has changed with the character and interests of the nation. The United States has progressed from a small, isolationist, agrarian nation with a relatively weak navy, to a large, globally involved, post-industrial nation with the most powerful navy the world has ever seen. Gen. Colin Powell stated,

No other nation on earth has the power we possess. More important, no other nation on earth has the trusted power we possess. We are obligated to lead. If the free world is to harvest the hope and fulfill the promise that our great victory in the Cold War has offered us, America must shoulder the responsibility of its power, the last best hope of earth has no other choice. We must lead. We cannot lead without our armed forces. Economic power is essential; political and diplomatic skills are needed; the power of our beliefs and our values is fundamental to any success we might achieve; but the presence of our arms to buttress these other elements of our power is as critical to us as the freedom we so adore. Our arms must be second to none.\textsuperscript{176}

\textsuperscript{176} Colin Powell "U.S. Forces: Challenges Ahead," p. 33.
Our navy is presently second to none and will remain that way for the foreseeable future. Following Gen. Powell's statement, we must not allow our navy to decline to a point where it can no longer perform its missions. In closing, it is important to keep in mind the argument of the Navy League of the United States. In November 1914, they issued a release titled "How to Keep World Peace." It simply stated:

An Easy Solution For Securing Peace on Earth Recommended by the Navy League to Well Endowed Pacifists.
Establish: The Rule of the People, A Satisfactory World Tribunal, Justice, Charity, and A Changed Human Nature.
Ad Interim: MAINTAIN A STRONG NAVY.177

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