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CAPITAL SHIPS: A HISTORICAL PERSPECTIVE

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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CAPITAL SHIPS: A HISTORICAL PERSPECTIVE

CHAPTER I

INTRODUCTION

Throughout history nations have developed their armed forces as a means of defense or to enable them to project political, religious, or economic goals. Large capable armies were developed in response to those desires. To equip those armies for battle, complex, destructive weapons were engineered to exploit the weakness of opponents. Tactics were developed which highlighted the advantages of those weapon systems.

For maritime nations, ships were designed to inflict great damage to an enemy's fleet. The largest of those ships became known as capital ships. Several of these ships, when combined into one fighting force, could easily defeat a weaker opponent. A fleet of these ships could control the seas and guarantee a nation a position as a maritime power.

Naval strength was measured in capital ship numbers. Ship types became technology dependent and drove the tactics of naval warfare.

> Ships must be designed to incorporate the latest innovations in naval architecture and weaponry, then constructed over a number of years - up to four years for the largest warships of the modern and contemporary periods. These latter, often called capital ships, have usually been the yardstick of naval power, the ship-type around which the tactics of the fleet are formulated.[1]

This paper will trace the historical development of capital ships and their profound impact on naval strategy. It will begin with a discussion of "ships of the line," their early tactics and development, progress to the pre-dreadnoughts and then to the modern day battleships. From there, it will consider the development of the aircraft carrier and the changes that occur. Capital ship employment in World War II (WW II) is analyzed with respect to why the aircraft carrier assumed the role of the U.S. capital ship. During the post WW II period it will be shown how these ships were utilized and why the aircraft carrier still retained its capital ship position.

The paper will then lead into a discussion of why capital ships are still required, the strategic risks associated with a force of capital ships and employment strategy. Finally, the paper will conclude by evaluating the capital ship concept and how it can be used to provide direction for the U.S. Navy into the 21st century.

CHAPTER II

EARLY STRATEGY AND DEVELOPMENTS

Recent history has shown that naval strength has often been measured by the type and quantity of "capital ships" that a country possesses. It was these capital ships that would be called upon to win decisive naval battles and maintain a maritime nation's position of strength. With that strength came the ability to influence the nation's economic and political status. Additionally, if that nation was involved in some type of offensive or defensive land operation, naval forces would often be emplcyed. Their employment would have a decisive influence on the outcome.

The requirement for a strong navy directly correlates to that nation's desire for command of the sea. This command of the sea, or as stated by naval strategists Alfred T. Mahan and Sir Julian Corbett, was desired to either protect commerce, or to defend against invasion, or to establish a base to begin a land invasion, or to prevent an enemy from gaining control of the sea. Blockade was often used effectively as a means to achieve some of these desires. Only a credible naval force could accomplish these missions. Capital ship strength was most often a measure of credibility. Capital ships, therefore, were designed to inflict maximum damage to the opposing fleet. They were developed in quantity and quality, incorporating the latest technology to assure their success.

Early efforts at building warships centered around the ram as the primary weapon to destroy enemy vessels. However, the introduction of the cannon onto sailing ships marked an era of major change. Destruction of an enemy's fleet became a duel of ships who sought a position on the line which would enable them to accurately use their cannons at short range. By inflicting a broadside barrage a ship could rapidly destroy the enemy's capabilities of remaining in the fight. These ships became known as "ships of the line" and were the stable of a maritime nation's fighting force.

> About the middle of the seventeenth century, warships began to fight in line ahead - the "line of battle" - so that batteries mounted along their sides could be brought to bear on an enemy with maximum effect. The size of a ship now determined whether or not it could serve in the line of battle; ships below a certain tonnage were not strong enough to stand the pounding of big guns, and could not carry enough guns to reply effectively. Ships of less than about 50 guns gradually dropped out of the line; so did armed merchantmen, which could not compete with the specialized fighting ship or "ship of the line" . . .[1]

To maintain a fleet that could be called upon to control the seas and protect national interests became an expensive proposition. Therefore, for a nation to become a maritime power it required a large monetary commitment. Once that commitment was actively pursued, the navy became a key element in the nation's defensive structure. Maintaining a generally offensive stance by operating on the "blue water" of the high seas provided the best defense for a maritime nation.[2]

> It was upon oceanic waters that sailing vessels would truly prove themselves, enabling the powers possessing them to project firepower unheard-of distances

> to create world-griding empires. But in doing so those vessels would also help to generate colossal rivalries and the bitterest of enemies.[3]

It was, therefore, essential to maintain a superior fleet. Credibility in a striking force proved to deter other forces from attempting to gain control of the seas, while the overwhelming force of a superior fleet would defeat weaker opponents. The strength of naval forces, therefore, began to be measured by the numbers of "ships of the line" and the firepower they possessed.

Wood construction of sailing ships placed severe limitations to ship loading and design. While faster ships were typically longer, they could not carry the large number of cannons that shorter, squarer designed ships could carry. Therefore, in order to achieve an adequate amount of firepower, cannons were stacked at multiple levels. This heavier loading required a squarer hull design which lead the designer to accept a speed trade off. These two fundamental differences were to become the basis for hundreds of years of naval strategic and tactical development.[4]

> Indeed, sound rules of engagement could be summed up in two simple phrases: A small ship could never beat a bigger ship, and a big ship could never catch a smaller ship. The configuration of the sailing warship even influenced the order in which the events of a naval campaign unfolded . . . swifter, lighter rates [a British system of subdividing vessels based on the number of guns that were carried] made contact first and fought the preliminary bouts, while the more ponderous heavyweights were saved for the exciting finale.[5]

Technological advances rapidly brought a new stronger, more terrifying vessel to the fleet. Steam propulsion enabled ships to change their locations. Maneuvering wind was no longer a determining factor in battle. Explosive shells and armor plating

greatly improved offensive and defensive capabilities. These advances gave rise to the modern day battleship, therefore, in the late 1800's the modern "capital ship" was born.

Concurrent with the advance in ship and weapons design, Mahan and Corbett began to expound on the historical significance of maritime strength. "Seapower," as it was defined, could be used to dominate the enemy in such a way as to bring about a decisive battle for command of the sea. This Mahanian philosophy was to dominate world naval development and assure the battleship "capital ship" status.

> Mahan's vivid descriptions of naval battles vindicated the principle of command of the sea and brought out the significance of decisive battles - the confrontation between the opponents' capital ships carefully organized through elaborate instructions into powerful battle fleets. He believed that only by battle, and secondarily through blockade involving the threat of battle, could the enemy's naval forces be controlled.[6]

The gun on the battleship became the most important weapon at sea. Navies began experimenting with various caliber and sizes of guns in an effort to discover the best combination of lethal firepower. Large guns were a natural outgrowth. Increases in defensive armor called for increases in offensive firepower capabilities. Guns grew in size, shells became larger and could be delivered at greater distances. Therefore, the world rapidly transitioned from the pre-dreadnoughts of the late 1800s to the advanced battleship type - the Dreadnought in 1906. Again, advances in weaponry and speed rapidly gave way to the production of the superdreadnought or the modern battleship in 1913.[7] However, "the tactical aspects of battleship war did not change:

the range of the gun remained the major factor in naval warfare, balanced by defensive armament and speed."[8] This era was to last until 1945.

As capital ships evolved, several important strategies developed. First, the idea of a true maritime nation or blue water navy became more of a reality. Ships could transit the globe and nations could exhibit their strength or bring it to bear at will. This caused a "bigger is better" naval arms race and the battleship grew in numbers and size. There was a heavy reliance by most nations on one ship type, the battleship, to win the decisive battle for naval supremacy.

Capital ships truly became National assets which stimulated public interests and provided a visible display of the nation's power. Loss of a capital ship could deal a severe blow to national pride and would rally public support to avenge the loss. The sinking of the U.S.S. Maine on 15 February 1898, in Havana, Cuba, for example, greatly accelerated the entrance of the U.S. into the Spanish-American War.

> Mahan's concept of gaining command of the sea by destroying enemy formations with a superior battle fleet was confirmed by the U.S. Navy in the Spanish-American War. As a result of that victory, the United States entered the twentieth century with mounting world influence [and] confidence in naval power . . . This emerging naval role and posture called for increased attention to maritime policy.[9]

CHAPTER III

PRE-WORLD WAR II

As the caliper and range of the gun increased, ships could now engage in battle at greater distances. Tactics dictated the early detection of the enemy fleet in order to maneuver one's force into the most optimum position for a decisive gun engagement. This classic maneuver, or "crossing the T," drove tactics to dictate a line ahead or column formation. If properly executed, it would allow one force to bring almost all its fire power to bear upon the enemy. However, this proved to be extremely difficult to properly execute in a dynamic battle situation.

> Taking fifteen thousand yards as the range of effective fire in good visibility, a column of, say, sixteen battleships could engage anything with every centerline gun bearing over the full length of its nine thousand yard column. More than half the guns would bear at least within thirty degrees of the beam of the first or last ship in column. [Therefore, at least half of the guns of the fleet could be brought to bear on any enemy if the "T" had been properly crossed.][1]

As the range of the gun approached the horizon, establishing a proper battle formation was critical to the success of the engagement.

> The horizon itself marks the qualitative change in the conduct of naval operations. Until the second quarter of the twentieth century, 98% of all naval warfare was conducted between ships unable to fight except when in sight of one another.[2]

Long range detection of the enemy fleet was necessary. This would provide the time required to properly position forces before

the actual engagement began. Only aircraft could provide a solution to this problem.

In order to locate and engage the enemy at great distances scout planes were used. These were either launched from carriers or surface ships (seaplanes). Once the enemy fleet could be located, guns could be brought to bear through the use of airpower.

> On 25 April 1915, during the main force landings at Gallipoli, seaplanes from the Ark Royal discover a Turkish battleship, Turgud Reis, firing from the Sea of Marmara across the Gallipoli peninsula against the Australian landing beaches. Their reports brought the battleship Triumph into action against the Turkish ship, her fire being directed across the intervening land mass by a kite-balloon operated by the Manica. It was the first time that a warship engaged another which was not in direct sight, and this was made possible by the development of air power.[3]

Air power was gaining utility and momentum. Technology was rapidly advancing. Carrier aviation was becoming a reality. However, additional threats to naval forces were also being developed and utilized by maritime powers. Torpedoes and mines were becoming more sophisticated and the submarine was developing as a formidable weapon system.

In 1921 General Billy Mitchell proved that concentrated air power could sink a modern battleship. While this display of air power was impressive to some; it did not sway naval strategy away from reliance on battleship tactics.

> The main function of carrier aircraft was to fight for and secure air supremacy over the battleships and to defend them from enemy air attack. Second to this function was the spotting for the guns of the fleet, the aircraft being seen as an extension of the gun and as a means of enhancing its effectiveness.[4]

However, as the U.S. dealt with General Mitchell and aviation issues, there was a growing concern for an exploding naval arms race. In 1921, the U.S. convened the Washington Naval Conference. Among the issues decided was to place a ceiling on capital ship construction.

> For the five largest naval powers (U.S., Britain, Japan, France and Italy) virtually all battleship and battle cruiser construction was to cease and a ceiling ratio of 5:5:3:1.67:1.67 was to be established. Specifically, the five naval powers agreed to limit their capital ship tonnage to vessels under 35,000 tons mounting 16" guns and totaling 500,000 tons each for Britain and the United States; 300,000 tons for Japan; and 167,000 tons each for France and Italy. These agreements were to last for ten years, at the end of which another conference was to convene to consider renewal. . . . Aviation was to be controlled by imposing the same 5:5:3 ratio on aircraft carriers. In general, carriers were to be limited to 27,000 tons, with tonnage ceilings of 135,000 tons each for Britain and America; 81,000 for Japan; and 60,000 for France and Italy.[5]

It is significant to point out, that the yardstick for naval power was still measured by battleship construction and that the aircraft carrier is beginning to be recognized as a serious threat to naval warfare. This conference was the first attempt by world powers towards arms control, however, efforts to continue ceilings on naval construction failed ten years later.[6]

CHAPTER IV

WORLD WAR II

World tensions continued to rise and both Japan and the U.S. began planning for a future confrontation. The U.S. plan, War Plan Orange, quite simply called for holding the Philippines until the U.S. Battleship Fleet could engage and defeat the Japanese threat. It employed all twelve of the newest U.S. battleships, which now composed the Pacific Fleet, plus three carriers. The plan itself was not realistic or executable. Among its faults was its failure to account for the transit time required to engage the Japanese fleet if called upon to defend the Philippines. It is worth mentioning, however, because it points out the current thinking towards a single battle employment of capital ship vs. capital ship (battleship vs. battleship) for control of the seas. The Japanese plan was remarkably similar in concept as it also called for the classic decisive capital ship engagement to resolve any conflict.

> The campaign was to begin with an attack on the Philippines, with the aim of luring the main body of the American Navy to the Western Pacific. The advancing U.S. fleet would then be weakened by stages, first with the large Type 6 submarines, then island-based bombers and torpedo planes, followed by destroyers launching very-long-range torpedoes, and finally a carrier air attack - the last being intended solely to prevent scouting.
>
> Blinded and suitably softened up, the American battle fleet would then be engaged by Japanese capital ships, which, using superior speed and gun power, would inflict a defeat so crushing that recovery would require five to eight years of naval reconstruction. But rather than build a new bevy of super battleships, it was assumed the Americans would sue for peace.[1]

With the outbreak of war in Europe, the U.S. was forced to transfer a portion of the Pacific Fleet to support the Atlantic war efforts. This reduced battleship numbers from 12 to 9 in the Pacific. War Plan Orange was now totally invalid. However, it had been previously recognized as impractical and had been modified into a series of Rainbow Plans. These plans had not, however, reduced the importance of the battleship to achieve strategic victory. They still ignored the rising potential of the aircraft carrier as a superior weapon system.

The carrier, meanwhile, had begun to prove itself in the European theater. Aircraft from the British carrier Ark Royal had crippled the German battleship Bismarck enabling the British battleships to close and sink the pride of the German Fleet. Additionally, in November 1940, British aircraft from the carrier Illustrious attacked the main Italian fleet at Taranto. Twenty one aircraft; sank or bottomed three battleships, damaged a cruiser and two destroyers, sank two supply vessels and severely damaged the Taranto oil depot.[2]

The Japanese, on 7 December 1941, were to end the reign of the battleship as the U.S. Navy's "capital ship."

> The dreadnoughts of Battleship Row were hollow symbols of national power, not effective fighting machines. With the exception of the men who died in them and the blow to national pride, the loss of these vessels hardly constituted any setback at all. Indeed a good case could be made that the ultimate result of Pearl Harbor was a net gain for the United States, in that it allowed the warship construction program to be reorganized in a more rational direction, and it freed the Navy of the line-of-battle concept once and for all.[3]

The American carrier now became the main striking force of the U.S. Fleet. Its effective use at Coral Sea and Midway greatly reduced the Japanese ability to win a decisive victory. Additionally, the chances of a single decisive dual fleet engagement grew less as the war continued on. A naval battle between capital ships would require air supremacy, something that the aircraft carrier could only provide.

> The Battle of Midway was of utmost importance because it was the first demonstration that battleships are worthless against aircraft carriers. That is to say, it proved that the "very long-range gun" which is the aircraft, was replacing the ordinary gun . . .[4]
>
> The aircraft carrier will spearhead this war, successful action . . . will be accomplished by naval aviation operating from aircraft carriers fighting as the Number One naval strength. The battleship is no longer the spearhead. [Press conference of 18 July 1942, given by ADM John H. Towers][5]

With the battleship *no longer* the centerpiece of the U.S. Fleet, emphasis was placed on striking the enemy while maintaining carrier survivability. If the war was to be won, carriers would have to be preserved until a sufficient fighting force could be constructed. On 08 August 1942, during the Marine Landings at Guadalcanal, rather than risk a loss of U.S. carrier assets to land-based Japanese Air or submarine attack, ADM Fletcher withdrew his carrier force. His extremely controversial decision, however, corresponded with orders of the present command structure, at that time, which tended to emphasize the primacy of carrier survivability under all conditions.[6]

Naval battle tactics were rapidly changing. Aircraft had allowed an opponent to engage the enemy at long range. Antiair

defense, however, was limited to organic or land based fighter air cover or the antiaircraft gun. Carriers were especially vulnerable targets, especially if attacked while aircraft were on deck. In order to supply the carrier with additional levels of protection, tactics were changed to offer a level of defense in depth. Battleships were often deployed ahead of the carrier task force to absorb and repel enemy air attacks. Their heavy armor increased their survivability and their guns were much better suited for defense against both air and surface action. The Battle for the Philippine Sea exhibits the use of this type of reasoning and tactical thinking.

> The rationale for Mitscher's arrangement was threefold, and it assumed that the carriers would be the enemy's prime target. First, the battle line being interposed between the enemy and American carriers, would provide a barrier of antiaircraft fire against the enemy planes passing overhead towards the carriers in the rear. Second, the enemy aircraft, reaching the battle line first, would be tempted to attack the expendable battleships and cruisers rather than pressing on to the carriers. And third, if the enemy surface ships did manage to close Task Force 58, the battle line could engage them before they reached the thin-skinned carriers. . . . It was a spectacular, one-sided battle. Mitscher's deployment of Task Force 58 worked precisely as envisaged. The enemy planes initially concentrated their attacks on Lee's battle line, stationed in front of the carriers and acting both as a magnet for the Japanese planes and a buffer for the carriers in the rear.[7]

It was clearly evident that the aircraft carrier had firmly established its position as the capital ship of the U.S. Fleet. Action in the Western Pacific had demonstrated the carrier's versatility and offensive capabilities. Power projection deep into enemy territory, from the decks of a carrier, had become a reality.

Concurrently, the War in the Atlantic was demonstrating the capabilities of air power against the submarine threat.

New tactics, centered around this new capital ship, quickly evolved.

> The naval force which first succeeds in getting positive results from strategic reconnaissance, by locating the enemy aircraft carriers, gains the initial advantage. It finds itself in the advantageous tactical situation of being able to hit the enemy without being hit. . . . Naval battles degenerate into long range air action. Aircraft can be considered the very long-range guns of the ships that carry them, which must open the way to the target in order to hit it with their projectiles, overcoming possible enemy opposition.
>
> Therefore, the capital ship is the aircraft carrier, surrounded by a group of naval vessels mounting strong antiaircraft and antisubmarine armament to protect them against attacks, which they could not effectively counter alone.[8]

CHAPTER V

POST WORLD WAR II

Carrier operations in Korea were primarily directed towards establishing air superiority and projecting power ashore. At the beginning of the Korean War, carriers proved to be the primary means available to project air power into enemy territory. Land bases had been overrun by the North Korean forces at the onset. Land would have to be regained before a viable land based air force could be reestablished in the region.

> Carriers were decisive, and they supplied a large fraction of tactical sorties through the war. They did so against virtually no air opposition at sea, although the prospect of such opposition required them to mount elaborate air defenses that diluted their strike potential. At the end of the war, carriers were the only mobile tactical forces available to deal with the remaining potential sources of conflict in the Far East, Indochina (Vietnam), and the Formosa Straits.[1]

Vietnam was similar in the fact that it was essentially a land war. Carrier participation was not opposed by a viable naval or air threat. What is significant to note was, the geographic differences between these two conflicts. In Korea, naval presence could be effective in limiting the enemy's supply access (naval blockade of a peninsula with limited land access), while the enemy's resupply in Vietnam was considerably easier because of its land borders and the cooperation of her neighboring states.

> Carriers helped maintain absolute air superiority and conducted approximately half of all bombings and air sorties. The two to four carriers constantly deployed off the Vietnamese coast on "Yankee Station" became a

> crucial part of the air war in Vietnam. . . . considering the outcome, one of the most important naval benefits from Vietnam was that all Navy bases, that is, surface ships, carriers, and planes, came home, whereas all Army and Air Force bases and considerable equipment was lost.[2]

Concurrent with participation in these two wars, the capital ship position of the carrier was being threatened by the strategic nuclear capabilities of the submarine. The emerging Soviet threat presented new problems and view points. Soviet naval power focused on long range missiles (air, surface and submarine launched) and a viable fleet of nuclear attack submarines. Indeed several sources develop strong cases that the Soviet nuclear attack submarine was the capital ship of the Soviet fleet.[3]

> The ability to stay under water practically throughout the period of independent action, the great depth of submergence and sailing on low-noise course give atomic submarines high concealment, ability to conduct combat actions on a global scale to destroy important land objectives, submarines and surface ships of the enemy. [Gorshkov, 1979][4]

The same argument could be used to support a view point that submarines, in general, threatened the aircraft carrier's capital ship status. In a global nuclear war this would certainly apply. However, in the realm of conventional confrontations, the submarine lacks the ability to project a visible forward presence. This greatly hampers its ability to pose a viable conventional deterrent without the use of force.

Fiscal constraints also threatened the capital ship status of the aircraft carrier. After WW II, the U.S. did not feel threatened by other major naval powers. Arguments immediately arose that the carriers were too vulnerable and too expensive. The

Air Force and the Navy actively competed for roles in an emerging world order. Carrier performance in Korea and Vietnam, while predominately land actions, renewed support for additional carrier construction. Hard choices had to be made. During Vietnam the Navy had been forced to place a disproportionate share of the money it received into power projection.[5] Many other ships suffered from age and neglect. Priorities for ship repair and replacement had to be determined. Admiral Zumwalt's high-low mix, which balanced larger, sophisticated, very expensive ships with smaller, less expensive craft, seemed to provide the solution.[6] Funding levels clearly supported the carrier as the U.S. Navy's capital ship. Ship design during this period focused on the defense of the carrier. It was evident that the U.S. Navy intended to center offensive or defensive operations around the its striking power.

> U.S. combatants must meet the demands of escorting fast carrier task forces worldwide . . . [7]

The U.S. Maritime Strategy, as developed during the 1980s, required forward carrier presence to contain the rising Soviet threat in a conventional conflict.

> In planning to fight the Soviet Navy, the U.S. Navy was concerned with standoff: long-range AAW at hundreds of miles from the carrier to destroy the "archers" rather than the "arrows" they shot, and deep-water, open-ocean ASW against high-performance Soviet SSNs. Target identification was a lesser problem because few neutral or civilian ships or aircraft were likely to be in remote spots off Kola or elsewhere.[8]

Carrier based attacks were planned deep into the Kola Peninsula in order to contain the Soviet Navy in their homeports. It was the offensive actions of carrier airpower that would contain

and defeat the Soviet Navy. Active antisubmarine operations and offensive submarine actions would also be employed to further limit Soviet operations and defend the carrier battlegroup. During this period carriers would be operated in the geographically defendable defensive position of the Norwegian fjords. Included in this strategy was the requirement of additional carrier battle groups deployed world wide in order to insure that sea lines of communication (SLOCs) remained open.

As the U.S. Navy pushed into the 1990's, the aircraft carrier was recognized as a capital ship. Its awesome power projection ability was still the yardstick of naval strength.

On 02 OCT 1990, the U.S.S. Independence Battle Group plus four minesweepers entered the Persian Gulf for a 3 day show of force. This was the second time since 1974 that a carrier entered these restrictive waters.[9] Subsequently in October 1990 the Independence Battle Group redeployed to the Gulf where they remained until relived by additional naval forces. Before the Gulf War was to end four other carriers were to enter the Gulf.

> Independent naval analysts questioned the repositioning. They said the move will limit the huge ship's maneuverability, and leave it vulnerable to mines and Iraqi jets carrying Exocet anti-ship missiles.[10]

Did this represent a doctrinal shift towards using the carrier in a secondary role, as a substitute for land based air, placing it at risk for what was to become an air and land battle, thereby reducing its significance as a capital ship?

Clearly, it did not. It is important to recognize that Iraq did have naval forces that did pose a threat. In order to achieve

Coalition campaign objectives the treat of these forces needed to be neutralized. From 18 January to 20 February 1990, aircraft from the carriers U.S.S. Ranger, U.S.S. Midway, and U.S.S. Roosevelt eliminated Iraq as a naval threat.

> By using an offensive Antisurface Warfare (ASUW) concept, Coalition naval forces found and destroyed Iraqi naval vessels well beyond the range of enemy antiship missiles. Carrier-based aircraft attacked and damaged many Iraqi ships while they were still alongside piers in Iraqi naval bases and port facilities. This ASUW strategy resulted in the destruction of, or damage to 143 Iraqi naval vessels. ASUW operations also extended beyond the destruction of naval vessels, attacking other threats to Coalition naval forces such as armed oil platforms and Silkworm antiship missile sites along the Kuwaiti and Iraqi coastlines.[11]

Also,

> A mining operation was conducted 18 January at the mouth of the Khawr Az-Zubayr river. . . . The mission involved 18 aircraft from the U.S.S. Ranger, including four A-6s carrying Mark 36 Destructor mines. Forty-two of the 48 mines were successfully dropped on four separate locations.[12]

Additionally, as in WW II the carriers were sufficiently surrounded by a layered defensive position. Iraqi mines, however, remained a possible threat, but carriers were held well back. Mine sweeping operations were on going throughout the operation. Therefore, the use of carrier air power as a naval asset and a force multiplier was justified to successfully achieve both naval and national strategic objectives. Placing the carriers in the Gulf was justifiable and did not compromise their capital ship status.

CHAPTER VI

CONCLUSIONS

So far this decade world events have had a significant affect on the future of the U.S. Navy. First and foremost has been the collapse of the Soviet Union. The subsequent outbreak of democracy in Europe, the formation of new nations, the reunification of Germany; all brought a new sense of peace to the world. At the end of the Cold War the U.S. found itself without a superpower adversary. The military was then an easy target for those seeking to reduce current government spending levels. The "peace dividend," which was to be obtained from cutbacks in the Defense Budget, was developed as a partial solution to these economic woes. Again, as in the post WW II and post Vietnam eras, military reductions (manpower and resources) will effect naval strategic thinking in order to cope with a reduction in the number of operational ships. As history has proven, a reduction in the number of capital ships will be a reduction of overall naval strength.

However, the basics of maritime strategy as described by Mahan and Corbett, are applicable in purely naval actions. The world has become more open to trade and more dependent on the seas as a means to pursue trade access. Nations have become more maritime in nature because of this growing dependence on the seas for the

shipment of commercial goods. These nations have either united with a strong maritime power or developed a naval force.

> We must remember that for many of the nations . . . the free use of the seas is vital to their economic survival and future growth; they recognize that the nation that can project naval forces into the region is the nation they want as an ally and trading partner.[1]
>
> The primary mission of the U.S. Navy is to ensure the unimpeded use of the seas by the United States and its allies in peace and if need be against hostile military attempts to deny such use. In war this mission also includes active denial to the enemy of the use of the seas, harbors, and adjacent airspace. Sea control does not mean what the term seems to imply, control of the seas simultaneously.[2]

Is command of the sea a requirement if it is not threatened by another superpower?

Currently, the navy of the former Soviet Union (FSU) is undergoing a transformation with an uncertain outcome. It still possesses a powerful fleet of ships, submarines, and aircraft. Due to the mobile nature of naval forces, if a return to hardline political policies were to take place in the FSU, naval forces would be the choice to utilize in a demonstration of their return as a world power. A strong naval presence, measured by capital ship numbers, still remains the best deterrent against this type of threat.

Additionally, peace has not broken out all over the world. Other threats still exist. China's future intentions are not well known. Nations that were once friendly and supportive are now considered unfriendly. A new world order has not been established. Countries are developing naval strengths. It is not surprising to

observe that aircraft carriers (capital ships) are becoming more prolific throughout the world. While the U.S. supercarrier is still the largest and most capable; France, Argentina, and the FSU have carriers of similar design. The smaller VSTOL (Vertical Standard Takeoff and Landing) or STOVL (Standard Takeoff Vertical Landing) carriers, (a lower cost option) are owned by the U.S., Britain, Spain, India, Italy and the FSU. Clearly, this acquisition of "capital ships" by these nations is an effort to establish or retain their status as a naval power.

Third world nations are acquiring technology which can rapidly vault them into a position which they can threaten lines of commerce. Only recognized naval strength can be expected to contain this rising threat. This will take a credible naval force, with capital ships, to counter and deter any aggressive action. This force can then be utilized to provide visible presence, or a demonstration of force, if required. As proven, an effective blockade could also be used to enforce strategic policy decisions. The aircraft carrier and its associated battle group can provide the credible force required to perform these missions.

Currently, for example, the U.S. is enforcing four blockades in separate actions worldwide: Serbia/Bosnia, Iraq, Cuba and Haiti. Two of those actions are continually supported by capital ships supplying overwhelming force, if required, for enforcement. Therefore, if the U.S. wishes to maintain itself as a maritime power it must rely on capital ships to project credible naval strength.

> The United States, on the other hand, has no potential enemies on its borders. One U.S. state, several U.S. territories, and forty-one of the forty-three nations with which we have defense treaties and agreements all lie overseas. It is clear that support of U.S. allies as well as attacks against the United States must be overseas operations. Thus, the oceans serve both as barriers for our defense and as avenues to extend our influence abroad. Although technology has revolutionized our communications and transportation systems, most cargo necessary for both peacetime commerce and wartime military operations is still transported by ships. These fundamental facts mold the development of our foreign policy and related military posture.[3]

Possessing capital ships, however, does create a risk. Two separate actions involving U.S. capital ships (the sinking of the Maine and the destruction of battleship row at Pearl Harbor) accelerated the entry of the U.S. into conflict. These actions rapidly escalated a potential conflict into an all out war. This should be a consideration when capital ships are employed.

> In any case, sustaining coercive intervention forces over any extended time frame clearly risks destruction of naval elements. The point is not that combat carries risks, but that the risks may not be consistent with the objectives, including the desire to limit hostilities. Sinking U.S. naval vessels of any description, much less capital ships, is not conducive to limiting hostilities.[4]

Since capital ships are a recognized national asset, their destruction or damage could rapidly unite public opinion into pursuing a more forceful course of action. Conversely, successfully striking a capital ship may provide a great boost to an enemy regime, inviting additional hostilities.

> The worst-case enemy may well be encouraged to become adventuresome if the chances of being successfully deterred or countered are minimal.[5]

Risk also occurs with a declining naval force. In order to understand this risk, the maritime strategy of pre-WW I Germany

needs to be examined. Germany at that time could not economically afford capital ship construction at a rate comparable to that of the British Fleet. It could however, develop a force which would, if engaged, severely damage Britain's claim of maritime superiority. This strategy, as developed by Admiral Tirpiz was:

> that as the German Navy could not be made strong enough for a reasonable chance of victory against every opponent it should be made so strong that its destruction would cost even the strongest sea power such heavy losses, endangering its supremacy vis-a-vis third navies, that the mere thought of that risk would act as a deterrent against an attack.[6]

Cutbacks in the number of U.S. capital ships could make this theory viable for a nation to exercise. A third world nation could acquire technology and resources which may make an attack on U.S. forces viable. Reductions in the numbers of capital ships make each remaining ship more valuable. The loss or damage of one or more capital ships during an engagement or a series of engagements would severely limit U.S. abilities to maintain SLOCs worldwide. The U.S. power as a maritime force would then be questionable.

> The loss of one carrier today would be far more damaging to the fleet than its loss would have been twenty years ago.[7]

Therefore, if capital ships are to be used in a deterrent action or a show of force, then they must continue to be perceived as credible. Being able to display this type of forward presence requires adequate numbers of capital ships.

Long term stationing of a carrier without action, also tends to dilute its use as a threat. For capital ships to remain a powerful threat, their power must occasionally be exercised. If

required for crisis response, action then it should be utilized in a reasonable period of time or it should be withdrawn. If reductions in capital ships occur, crisis response employment policies need to be reevaluated.

> The problem of the "close embrace" of our aircraft carriers might be solved by changing our deployment policy to one in which the carriers are not deployed forward on the current rigid basis. Alternatively they might withdraw from the direct confrontation in a crisis, leaving a less highly valued prize, but one with projection capability, . . . This would hold the carrier in reserve to strike back.[8]

CHAPTER VII

EPILOGUE

"Its hard to be simple and its real hard to be blind . . ." [1]

Future conflicts between nations are not likely to be solved by either maritime action or air action alone. Only through the force of a land army and a combination of naval and air forces may conflicts truly be resolved.

> Advocates of the thinking of Alfred Thayer Mahan argued that the role of the navy must be to achieve "command of the sea," which meant acquiring the capability to seek out and defeat the naval forces of any other power. It required a stronger, more numerous, better gunned battle fleet than any enemy, and the ability to deploy and concentrate that superiority anywhere in the world ocean. "The proper objective of the navy is the enemy's navy," said Mahan.[2]

In September 1992, the U.S. Navy published "...From the Sea," a Navy and Marine Corps White paper. That publication assumed U.S. maritime superiority and that control of the seas could not be challenged. According to the White paper, the Navy would act as an enabling force for combat operations in the littoral area.[3] So how does the concept of a capital ship fit into this new direction for the 21st century?

Changes in technology spearheaded the evolution of capital ship design. The reign of the "ships-of-the-line" ended with the development of steam power, armor plating and the gun. Likewise advancements in aviation made the carrier supreme to the

battleship. While aircraft technology continues to change, (offering greater versatility to the employment of carrier forces) there has not been the required technological weapon system advances that would vault another ship design to the forefront as the capital ship of the future. Certainly, advancements in weapon technology, e.g., a rapid response long range weapon with flexible targeting, may bring a new capital ship into existence. However, whether surface or space based, a technological leap of this type is required. Also, it should be noted that if this were to occur, the historic tendency has been not to recognize this shift and hang on to old tactics in a reluctance to make changes to the old order. Old philosophies and methods die hard.

I propose we make that doctrinal shift, right now. ". . .From the Sea" as doctrine for the 21st century is too limiting. It "focuses on the exceedingly narrow littoral band, ignoring the trends that point to increased naval predominance in all broad areas of national security."[4] Mahan was more correct, when he implied that capital ships used in battles would bring about decisive victory. His viewpoint too, however, was also limited. If we reanalyze history, we conclude that exponential changes occurred to naval battles once engagements could be carried out over the horizon. I propose that the coastline and littoral areas be considered in the same vein. By thinking of the littoral areas as a boundary that has been broken by technology, we should look at a greatly extended naval sphere of influence.

In this manner, Mahanian philosophy would be modified as follows: "The role of the navy must be to achieve "command of the sea," which means acquiring the capability to seek out and defeat the enemy (sea, land or air) forces of any other power. It requires a stronger, more numerous, better gunned battle fleet than any enemy, and the ability to deploy and concentrate that superiority anywhere in the world ocean. "The proper objective of the navy is the enemy's centers of gravity."

Decisive battles would still be expected to occur, capital ship vs. capital ship, but in this frame of reference the definition of the enemy's capital ship would be transitional. Therefore, the enemy's capital ship could be sea or land based. Where land based capital ships would reflect the enemy's centers of gravity or our own national policy objectives.

I must point out that making this doctrinal shift does not detract from the ". . . From the Sea" stated objectives. It does, however, more clearly expand the role of the U.S. Navy into the 21st century. It also makes allowance for the expanding power projection roles the navy has been required to perform since entering the post WW II era. Additionally, it would be applicable to future superpower or third world conflicts. Finally, it allows for the incorporation of warfare technological advances, including the possible development of a new fleet of capital ships.

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