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U.S. Naval Strategy 1890-1945

George W. Baer

In 1890 Captain Alfred T. Mahan published *The Influence of Sea Power upon History, 1660-1783*. That same year the secretary of the navy, Benjamin Tracy, published a report calling for an offensive battle fleet, and Congress passed legislation authorizing the construction of three first-line battleships. Both events were prompted by the concepts of sea power and offensive sea control.

Mahan and Rear Admiral Stephen B. Luce at the Naval War College sought to change the way Americans thought about national security and the way the navy fought its battles. Luce considered naval warfare to be a science. A month before Mahan arrived at the Naval War College, Luce told a class that the navy needed a “master mind” to expose the principles of “the science of naval warfare under steam.”¹ Mahan was his man. Mahan knew, however, that he would be unconvincing if he simply declared his ideas *a priori*, and so, applying history, he developed his theories within a broad concept of sea power. History for Mahan, as Donald Schurman observed, was “a military exercise that yielded some scholarly insights; not a scholarly search that yielded some military results.”² He used history to popularize the idea of sea power as the basis of national strategy, and he used it to illustrate offensive sea control, based upon principles of naval warfare.

Mahan defined sea power in ways that were broadly social—not only military. His famous list of its six elements, human and natural geography, manpower and morale, institutions of government and national character, was a net assessment of a strategic culture, a culture with its own practices. The most important of these practices was the wartime struggle for control of the sea.

Such a struggle differed radically from the existing U.S. notions for the practice of naval war, which were the defense of one’s own harbors and the destruction, through raiding, of the enemy’s commerce. Mahan declared that

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a new maritime age was at hand, an age of concentrated battle fleets. The old navy of dispersed cruisers could not stand up to an enemy battle fleet that could ignore coastal batteries and monitors waiting in harbors, an enemy that could establish a blockade beyond the reach of those coastal defenders. An adversary in command of the sea could violate the Monroe Doctrine, put a coaling station in the Caribbean, and control everyone's access to the prospective isthmian canal. Mahan believed that such a threat could be challenged only by a concentrated U.S. battle fleet. Clearly, in war a navy's main job was to fight the enemy's navy.

Thus, he connected the concepts of sea power and sea control. We must note here that the connection was, and is, conjectural, for there is no set style of naval strategy for either a maritime or a continental culture. Navies are artificial, and they are contingent. There are other ways to meet enemies at sea, other ways to protect one's maritime interests. Much depends on the circumstance.

Still, Mahan was addressing at least one real institutional problem in 1890. Moving into the era of steam, steel and big guns, the navy no longer knew how to think of itself. Luce and Mahan tried to correct this conceptual confusion in order to prevent the navy from sinking into a strategic limbo. Navies are not created overnight, and in time of peace or in the face of political indifference, the navy must maintain its cohesion and corporate purpose *as a fighting force*. Without a purpose and an operational doctrine, it will be without direction and unable to size its force. The concept of sea power and the doctrine of sea control gave the navy its direction—at least up to a point.

During times when there was no clear political guidance, when sea power did not animate American strategic culture, the navy could not be certain it was gauging the national interest accurately. Neither could it judge accurately the support it could count on from the nation. Sailors are happiest when concentrating on the specifics of operations, and from time to time the navy's attention gravitated too heavily to those parts of the strategic equation over which it did have control, that is, to the *way* the navy actually used its strength as a fighting service, and to its ships and their operations. When that happened, there was the tendency to separate force from policy. Over time, the concept of sea power, even to Mahan himself, became equated with naval strength, losing its grander cultural and economic dimensions, and hence its political value for determining strategy.

On the first page of his famous book, Mahan notes that "the history of sea power, while embracing in its broad sweep all that tends to make a people great upon the sea or by the sea, is largely a military history." But strength is not strategy, and the navy could not function for long without a reliable purpose. That purpose had to originate from political guidance, and that was why it was always important for the navy to recall Mahan's initial purpose:

to put the navy in a strategic context. It was for this reason Mahan aligned operations with culture, geography and economics.

Mahan's goal, then, was to give the navy both operational and political characteristics. He wanted his countrymen to understand that the navy expressed the nation's basic interests. Sea power defined a maritime nation's security and prosperity in terms of competition—and it was the navy's job to mediate. Maritime commerce, Mahan said, was inherently competitive. Competition would lead to expansion, which would lead to war. War would be waged on the seas, and often, afloat or ashore, for pieces of land vital to sea communication. Sea power, therefore, included both the means of protection and the national interests to be protected. From this reasoning, which critics found circular, Mahan was able to include deployment instructions for capital ships in his doctrine of sea control.

Still, there was a sense of changing times. The three *Indiana*-class battleships Congress authorized in 1890 were for coastal and regional defense—from the mouth of the St. Lawrence down to the Windward Islands and over to Panama, to prevent establishment of any enemy coaling base in the Caribbean. They were meant to concentrate before meeting an enemy force, and to meet that enemy force offshore. To that extent Congress acknowledged the emerging strategy of forward deployed fleet operations. Congress explicitly designated the new vessels as “sea-going coast-line” battleships, thus making it clear to the navy that while they could be concentrated offshore, they were not to be used as a long-endurance battle fleet, fit for action in distant waters.³

Of course the navy had long been active around the globe in the protection of American citizens and their trade. Small squadrons of gunboats and cruisers were stationed around the world, based in friendly foreign ports to avoid the burdens and costs of colonies.⁴ In time of war, those cruisers were to operate singly as commerce raiders. There was nothing grand in all this. What protected American citizens' freedom was not U.S. naval strength, but the country's size, its isolation and the balance of power in Europe, which restrained transatlantic ambitions in that continent. These, all beyond the U.S. government's control, were more effective guarantors of Americans' freedom than their navy was or could be.

Britain, the greatest naval power, did the duty of securing trade and maintaining the status quo in the Western Hemisphere. As the century turned, only around 14 percent of U.S. overseas trade was carried by ships flying the U.S. flag. The merchant fleet in 1900 was the same size as it had been in 1807.⁵ There was little government interest to encourage its growth—a bad sign for a maritime nation.

Security and prosperity, the breadth of the oceans and the continent, had bred complacency. That state of mind was what Mahan and his coadjutors, Luce, Rear Admiral Henry Taylor, Professor James Soley, and secretaries of the navy Benjamin Tracy (1889-1893) and Hilary Herbert (1893-1897) set out

to change. The United States, they said, had to prepare for a period of intense state-sponsored maritime competition. Fleet action was the core of future naval warfare. The United States must therefore establish a fleet at full strength *in peacetime*. They sought, in short, to change operations from dispersion to concentration, and to project the new fleet onto the blue water.

Secretary Tracy, under the inspiration of Mahan and Luce, spelled out the mode in his report of 1889 (published 1890): "The defense of the United States absolutely requires the creation of a fighting force. . . . We must have a fleet of battle-ships that will beat off the enemy's fleet on its approach, for it is not to be tolerated that the United States, with its population, its revenue, and its trade, is to submit to attack upon the threshold of its harbors. Finally, we must be able to divert an enemy's force from our coast by threatening his own, for a war, though defensive in principle, may be conducted most effectively by being offensive in its operations."⁶

Offensive operations would return the horse to the front of the cart. And the economic stranglehold came after, not before, the defeat of the offshore battle fleet that required concentration. Those cruisers on distant station, Mahan said scornfully, were like policemen on single beats, unable to overcome a massed opponent.⁷ Everything depended on destroying the keystone of the enemy navy, its fleet. Once the opposing fleet was sunk, sea control followed, the wide commons lay open, commerce could be conducted or interdicted, blockades imposed, and the navy could move at will.

It was an article of Mahanian faith that naval necessities would impel all navies to follow the principle of concentration. Mahan's was a world of strategic similars. The enemy's purpose, his concept of operations, and his force structure were expected to be the mirror-image of one's own. That simplified naval thinking.

When set in the vivid descriptions of Mahan's histories (for which he was elected president of the American Historical Association), sea power doctrine, joining purpose and means, gave the public an explanation of why a great navy would fight, and how, and where.⁸ By these lights, naval officers could deduce the navy's function even when no foe was evident and determine its force structure. Sea power so thoroughly mixed patriotism, a formula for prosperity and security, and the certainties of history with principles of warfare, that "it seemed to obviate the need for further intellectual effort."⁹ The navy would be a *distant* shield, and this was an additional popular attraction for the argument of forward deployment.

It was interesting to note how the doctrine of offensive sea control commended itself to the army. In 1897 Lieutenant General John Schofield, formerly Commanding General, United States Army, interpreted its coast protection mission in Mahanian terms: "In a country having the situation of the United States, the Navy is the *aggressive* arm of the national military power. . . . For this purpose entire freedom of action is essential. . . . Hence

arises one of the most important functions of land defense: to give the aggressive arm secure bases of operation at all the great seaports where Navy yards or depots are located. . . . Foreign conquest and permanent occupation are not part of the policy of this country."¹⁰

War with Spain a year later, and subsequent U.S. control of the islands athwart important sea lanes, transformed the U.S. status in the world. But war takes people and nations in unexpected directions. A war of liberation in the Caribbean ended with the United States becoming an imperial power in the Far East.

The war confirmed the new naval strategy. Offensively committed U.S. warships won two decisive battles—both in enemy waters. Victory off Santiago de Cuba validated fleet action and the use of the battleship as a gun platform as opposed to a ram.¹¹ It gave the United States undisputed command of the sea in the Caribbean, the main combat theater. Local sea control enabled the United States to prevent Spanish reinforcement of Cuba. That control, as part of a global strategy, brought victory for the United States. Command of the sea permitted the navy to threaten the Spanish coast, and concentration of a U.S. squadron, an offensive counterthreat in the Atlantic, compelled the Spanish government to recall a squadron it had sent to defeat Dewey in Manila Bay, on the other side of the world.¹²

The U.S. Navy served a national maritime strategy. In the war with Spain, it followed classic lines, not only isolating the foe, but also supporting any army ashore. U.S. sea control prevented Spain from supporting its overseas possessions, and the U.S. Navy transported troops at will to attack Cuba and later to conquer the Philippines.¹³

Mahan's principle of fleet concentration prevailed, and there was no widening of the war. Dewey's squadron shared Manila Bay with ships of the navies of all the great naval powers except Russia. Those states decided to stand aside, and Spain's loss of her unruly Asian colony went unchallenged.

The theory of sea power, then, was found to give meaning to the annexation not only of the Philippines, but of Guam and Hawaii and, in the Atlantic, Puerto Rico. Island holdings denied bases and coaling stations to other states, and in turn gave U.S. ships extended range. Annexed territories became part of the claim and burden of empire. As they had ultimately to be defended by sea, they required a navy with a durable fleet. The country's strategy turned to extended power projection. The navy wanted to eliminate the distinction between coastal and oceanic battleships. In 1908 President Theodore Roosevelt solemnized these developments. He declared the navy must be "foot-loose," gave it a formal fleet organization, and sent it on a cruise around the world.¹⁴

At the turn of the century, however, a one-ocean battle fleet proved inadequate to cover two oceans. To keep the fleet together, the navy had to choose between basing the entire fleet either in the Atlantic to counter

Europeans perceived to be menacing the Caribbean, or in the Pacific to protect the Open Door and the Philippines. Sea power doctrine pointed both ways, Ronald Spector has noted: "In truth, the Navy was caught between two of its own dogmas: its commitment to the strategic 'truths' of Mahan, which demanded concentration at the point of greatest danger [the Atlantic], and its belief that economic rivalry was the all important issue in international relations [the Pacific]." ¹⁵

The decision was made to defend against the perceived political threat of the European fleets in the Atlantic and thus not to support commerce in the Pacific. Security prevailed over prosperity. Stephen Luce had spotted the trend setting in, even before the Spanish war. In 1897 he reviewed Mahan's third book, *The Interest of America in Sea Power, Present and Future*. "Mahan has allowed the views of a naval strategist to dominate those of the political economist. . . . Sea power, in its military sense, is the off-spring, not the parent of commerce." ¹⁶

Sea power, of course, had many parents. And strategy is a dependent art. It bridges operations and purpose. If policy is absent, strategists must deduce one, or do without. In 1903, for instance, the navy secretary asked the General Board for advice on a building program of "such strength for the Navy as seems to the Board essential to the interests of the country." ¹⁷ The secretary did not state what those interests were, or who the enemy was, or might be. The General Board, in turn, wanted to avoid political embroilment. Naturally concerned with the navy's fighting force, it fell back on identifying sea power with naval strength, keeping the focus on operations. Strength in itself would serve, if it was assumed that all other maritime states were at least potential foes. Good as this was for suggesting a force structure, it was not a true strategic deduction.

The ambiguity of "sea power" allows open doors of thought, yet a social theory, a social description, which is part of sea power doctrine, even one which predicts competition and combat, even one which contains simultaneously an adjunctive parallel doctrine of operations, is not the same as strategy. The connection proposed may, or may not, be valid, depending upon the specific circumstances. The navalists, like dogmatists of any period, were wrong to imagine that they had the all-time key. Nonetheless, ends and means did seem to be related in sea power synthesis at the turn of the century and, the more that this was so, suggested to the navy that it could take its purpose as given. That in turn made much further strategic thinking seem unnecessary. Certainly this was so when navies appeared to be operationally similar. The main variable became the strength each side could put at the point of decisive battle. ¹⁸

The political leaders in Washington did little to impose distinctions or create adjustive mechanisms to ensure an interaction between the different elements of strategy, shifting political ends, and changing military means. The

very comprehensiveness of sea power doctrine seemed to make many of these distinctions unnecessary.

A result was that the General Board's recommendation in 1903, responding to the secretary's request, was for forty-eight first-class battleships, a two-ocean fleet, with a balanced array of supporting ships. The recommendation was made without knowledge of why the force might be used, against whom it might be used, or what building program Congress might accept. The General Board simply followed the conventional navalist wisdom that assumed war was inevitable, and therefore, the country should build to surpass the capabilities of other navies.¹⁹ Japan's growing naval strength might hold Hawaii and the Philippines hostage. A European power might sail into the Caribbean. Without an isthmian canal to swing the fleet, prudence required a two-ocean fleet.

But these were hypotheses, and neither the administration nor Congress was in a mood to honor such an extravagant request. On the other hand, President Theodore Roosevelt, and Taft after him, encouraged the force emphasis. They used the navy for display; showing the flag became, as Seward Livermore said, almost a national habit, with demonstrations substituting for diplomatic achievements.²⁰ This was most conspicuous when Roosevelt, in 1907, ordered the sixteen battleships of the Atlantic Fleet to sail around the world as a test of, and to demonstrate visible proof of, strategic mobility. Upon their return their white and buff exteriors were painted over with wartime gray.²¹

War Plan Black of 1913, for a war with Germany, like its contemporary War Plan Orange for a war with Japan, sublimely iterated contemporary sea power concepts. Plan Black envisioned war erupting over an inevitable German expansion into the western hemisphere. To prevent that, the U.S. battle line would move against an approaching German battle fleet (upon which, in Mahanian logic, all German plans must rest) and defeat it as it entered the Caribbean. This, of course, involved a very narrow reading of the international scene and (like the plans of other navies) mistook entirely the nature of the war to come. War Plan Black has been described as "surrealistic."²² In 1913 it was incredible to image that the German government, tied to Europe and surrounded by continental foes, would, or could, dispatch thousands of men and the major part of its fleet to seize an island in the West Indies where it risked engagement with the entire U.S. battle fleet. A navy study said the Germans would have to bring their coal from Europe, and estimated the fleet would require 97 colliers—and an advance base in the Caribbean, since refueling could not be done at sea.²³

That contemporary reality entered so slightly into the navy's war planning in 1913 shows the danger of institutional hermetics. The military cannot detach itself from the political world. International affairs have too many dimensions. Governments may decide to avoid war, decide, for example, not

to use their warships. Governments may have allies that constrain them, or assist them. Governments may seek ends through means other than command of the sea. Threat assessment is not an abstracted calculus. Bean-counting is not strategy.

On the other hand, it misses the point to dismiss War Plan Black as preposterous. Its purpose was to assure U.S. strategic independence and regional hegemony. It followed a doctrine of operations that reigned in all the great navies. Any officer on the General Board, and President Wilson and Secretary Daniels as well—and the members of the naval staffs of Great Britain, France, Germany, and Japan—would have been astounded had they been told in 1913 that in four years' time the United States would voluntarily intervene in an overseas war, and as part of a coalition; that the commanding officers of the battleships of the Atlantic Fleet would never even see the German High Seas Fleet; and that the U.S. Navy, practicing defensive sea control measures of convoy and mining, would operate primarily as a transport service. It would have astonished them had it been suggested that when a German force did approach the American shore it would be underwater, that an army would cross the ocean from west to east, unmet by any surface fleet, and that the navy's main task would be to move safely (with British help) 2,000,000 U.S. soldiers to another continent. Such political, military, and technological prospects simply were not envisioned by the U.S. government in 1913, or by any other government.

But what if Germany won a European war? From that perspective War Plan Black made sense, for it supported the nation's strategic independence and defended the Monroe Doctrine. Strategic independence was President Wilson's aim when he proposed the Naval Bill of 1916, taking the lead in the cause of naval expansion. Wilson did not know how or when he might use this force. His purpose was to be ready, regardless of how the war ended, to back up his policies. For this he needed a big navy. "Let us," Wilson said, "build a bigger Navy than hers [Great Britain] and do what we please."²⁴

The navy was asked to build the largest navy afloat. The General Board replied: "Defense from invasion is not the only function of a Navy. It must protect our sea-borne commerce and drive that of the enemy from the sea. The best way to accomplish all these objects is to find and defeat the hostile fleet or any detachments at a distance from our coast sufficiently great to prevent interruption of our normal course of national life."²⁵

That was sea power talking. The Board asked for ten dreadnoughts with 16-inch batteries, six battle cruisers, ten scout cruisers, fifty destroyers and, indicative of the navy's prudent diversity, sixty-seven submarines for defensive coastal duty. Spurred by news of the Battle of Jutland which reminded everyone of great ships and fleet battles, Congress gave the navy what it wanted. When construction was complete in 1925, the government

would find itself in a new position of world authority and independence, however the war ended.²⁶

Neither the operational nor the political experiences of the brief eighteen months of U.S. belligerency caused the uniformed leaders of the navy to alter their prewar positions. By and large they treated transport and escort as unusual missions that were unlikely to be repeated. Officers did not draw the conclusion that mining and convoying—operationally defensive, although in the interest of a strategic offensive—had changed the means of winning sea control from offensive action by capital ships. That the Germans had found a way around the battle fleet and revived a war of raiding did not much concern the navy. Conceptually, it could be argued there was no need to rethink sea control doctrine. German raiders were beaten in a maritime environment that could be defined *as if* the High Seas Fleet had been decisively beaten, for, as long as it was held in port, it did not exist as a surface opposition. At the same time, Arthur Hezlet reminds us that “the defeat of the U-boat was not because the *guerre de course* could not by nature be decisive: it was because the Allies were able to be strong everywhere and make a gigantic effort.”²⁷ In itself a form of sea power, this general and dominant allied maritime strength also undercut the strategic influence the Germans had hoped to derive by keeping the High Seas Fleet in being.

Naval planners in 1918 were certain that the true Mahanian challenge lay ahead. Great fleets were still afloat. Few officers believed that the end of hostilities would usher in an era of peace.²⁸ Naval power remained the pillar of American security. In the postwar world competition would continue, and, in a world of powerful fleets, the capital ship strategy remained intact.²⁹ A report from the Atlantic Fleet in January 1919 read: “The best way to destroy commerce is not to attack it directly, but first to destroy the forces that defend it. . . . The principal [intermediate] objective is the destruction of the enemy’s main force.”³⁰ Navies still existed to fight other navies. The U.S. Navy, however, by its concentration on the inevitable, neglected to consider that in the intermediate future, Great Britain and Japan could not be expected to challenge the United States over trade, whatever the size of their fleets.³¹

Strength did, however, have political value, and Wilson used the insistence on parity to force the British into compliance with his new world order. The League of Nations would not work if the navy of one state dominated it. The Royal Navy, for instance, could imperil the Monroe doctrine should Great Britain claim to be acting in the name of the League. So Wilson’s naval construction program was a form of blackmail, threatening the British with a vastly expensive arms race. The same tactic was used to influence Congress. The only alternative to international cooperation and collective security, said Wilson, was an endless competition in naval arms.

Congress rejected the proposition. The idea of a strong navy in the service of collective security died when the Senate refused to endorse American

membership in the League. No one in Congress took note of Wilson's claim that the alternative was an expanded independent force. No one outside the Navy Department viewed Great Britain or Japan as military or commercial threats sufficient to justify the enlarged building program, and so it was abandoned. Sea power doctrine appeared to be unraveling; membership in the Navy League, founded in 1902, dropped off; and in 1921, the year of the Washington Conference, the Navy League suspended publication of its journal, *Sea Power*.³² The postwar navy did not know which way to turn.

In 1919, for instance, the Joint Army-Navy Board took another look at War Plan Orange. Unwilling to act without instruction, the Board announced that it could not plan without a definition of national policy. What were the country's interests in the Far East? Did they require a decisive defeat of Japan or a limited and perhaps only a defensive war? Was it simply too costly to hold the Philippines? "These questions," wrote a navy member of the planning committee, "are not for the War and Navy Departments to answer, but for the State Department."³³

An answer was never given.³⁴ Captain Frank Schofield, a major naval planner, said at the Navy Academy in 1922: "It has therefore been necessary for the Navy to make its own estimate of national policies and to revise these as events justified."³⁵ The navy declared that Japan was its most probable enemy, and in mid-1921, to support Japanese exclusion, the Open Door, the integrity of China, U.S. control of the Philippines and Guam, and the coming struggle for Pacific supremacy, the navy ordered the bulk of the battle fleet to the west coast. The State Department and Congress were unimpressed, and accordingly, postwar budgets did not give the navy what it sought: The navy had deduced incorrectly; Japan was not an enemy of the United States!

In 1921 the administration turned the navy's assumptions upside down. The question of what to do about the navy was political, and it received a political answer. Harding, Coolidge, and Hoover used the navy as an instrument of policy to limit arms, not win a war. If the purpose of battles was to reduce the strength of other navies, that could be done in peacetime as well as wartime, and more efficiently by agreement than by sinking ships. At the Washington Conference of 1921-1922, and its successors, the Geneva Conference of 1927 and the London Naval Arms Limitation Conference of 1931 (and, prospectively, the aborted Second London Naval Conference of 1935) the symmetry of battle fleet doctrine was used as the means to ration ships. A common view of naval warfare among the three major naval powers made agreement possible. Relative positions of naval strength could be determined and assigned, or so the diplomats thought. The General Board said there was no yardstick of naval power, no "naval unit" by which to compare combatant values of the different classes of ships.³⁶ This did not concern the political authorities. Harding simply excluded naval officers from

the official delegation to the Washington conference and rejected the navy's strategic assessment.³⁷

Naval disarmament and arms limitation required shifts in policy which many officers believed undermined the force base of sea power. At the Washington Conference the secretary of state, Charles Evans Hughes, proposed scrapping seventy capital ships worldwide and declared: "Preparation for offensive naval war will stop now." The chief U.S. delegate wrote that his delegation "started with the proposition that the United States would not be sufficiently interested in the open door or the preservation of Chinese integrity to go to war about them, and that Japan realized this probably better than the average American did, and that our naval program was very doubtful any way, because of the very strong opposition in this country to the immense expense involved. Therefore the first point in their minds was that we were not throwing away any weapon with which we could threaten Japan."³⁸

To the navy, however, the battleships he was talking about were those upon which depended the navy's Pacific war plan to defend the Open Door and the Pacific islands. Even worse, from the navy's perspective, the United States agreed at Washington not to establish fortified bases in the Philippines, at Guam, or in the Aleutians. This was the *quid pro quo* given to Japan for accepting a capital ship figure below that of Great Britain and the United States. That conceded Japan's effective regional domination. In return, Japan was to cooperate in arms limitation and (on other treaties signed at Washington) maintaining Pacific stability and Chinese integrity. Deprived of forward bases, the navy had to drop its plan for a swift offensive to the western Pacific, the "Through Ticket to Manila" on which it and the army had been working since the turn of the century.

Rear Admiral William V. Pratt, then a maverick on the General Board, defended the Washington treaties by arguing that a strictly naval view was restrictive. The navy, he wrote, "is first, the statesman's tool, and second, the warrior's weapon."³⁹ Pratt argued that a stabilized security environment was a valid substitute for more ships. He tried to convince his fellow officers that they could still have a theory of sea power, even with limited naval strength, if they understood sea power as proportional and provisional, not absolute, and if political action protected the navy's relative position. Pratt's fellow officers, fearing destruction of the force, accused Pratt of selling out to political expediency.

"The relationship existing between national and naval policy is one that is not always fully understood," Pratt countered. "Sea power and naval strength are not entirely synonymous terms."⁴⁰ The treaty agreement, Pratt was arguing, encouraged cooperation, and thus assured economic access and free trade more effectively than the threat or even use of naval force. Pratt was adding intentions to the calculus of capabilities, making a broader political

assessment. He had a point, and his opponents found it hard to make the case for force as an instrument to pursue the national interests when the government claimed no foes, at a time of definite and not unfavorable ratios, and when all countries declared an end to the search for strategic advantage, stressing peace and cooperation.

The dimension of force structure remained, however. In fact it was now codified by the treaties. "For the first time in the history of our country," the secretary of the navy, Edwin Denby, wrote in his annual report for 1922, "the Navy and Congress have a definite naval policy and building and maintenance standard to work to, a standard which is proportionate to our position as a world power," by which he meant battleship parity with Great Britain. In this sentence one can see a continuation of the definition of sea power as warship strength, a sense confirmed by the race in cruisers that was settled, after much bitterness, by the London Naval Treaty of 1930.

Hoover had no interest in naval force beyond its sacrificial value. Early in his administration he stated the limit of his concern. "Are our defenses strong enough to prevent a successful landing of foreign soldiers on the continental United States and ultimately on the Western Hemisphere?"⁴¹ The London Naval Conference was called to resolve the bad feeling between Great Britain and the United States. Arms limitation agreements were mechanisms of adjustment for the balance of power. The navy won acceptance of quantitative parity with the British in all classes, burying that old bone at last. However, it translated the other conference results—extension of the battleship moratorium, cruiser limits, and smaller numbers overall—as fewer ships and no new bases. CNO Admiral Charles Frederick Hughes and the General Board, represented by Admiral Hilary P. Jones, thought the President gave up too much. The United States had specific requirements in two oceans, possibly against two enemies, which could not be met after the cut in forces. Pratt, on the other hand, commander in chief of the U.S. Fleet and leading delegate to the London conference, thought "risks for peace" could be made safely. The British would cooperate and hold to the treaty agreements.⁴²

The London treaty was the high-water mark of the belief that the way to reduce the causes of war was to control the forces of war. It was a belief that reversed reality, for, in truth, arms limitation is the result of self-restraint, not the cause. Self-restraint existed in 1930, hence, the treaties. It disappeared almost immediately thereafter. All subsequent efforts at disarmament and collective security failed. When the London treaty expired in 1936 the world environment was so transformed that to most countries it seemed that an arms race, if not war, was the only way to security.

The gamble was with Japan. The United States hoped that by bringing the Japanese into the Washington and London treaties, at a ratio inferior to Britain and the United States, but high enough to permit its maritime defense and even regional domination, the Japanese would endorse a Pacific status

quo, guarantee the integrity of China, and permit Americans to retire into isolationism and disarmament.⁴³ This solution was good for only as long as Japan continued to abide by the treaty agreements.

For forty years War Plan Orange had kept the navy's focus on war in the western Pacific, and its Mahanian lineage justified a big fleet. On the other hand, Orange had no political justification, was without the means of fulfillment, and until the end of the 1930s was kept alive only by the navy's deduction of what the country's interests were and its sea power doctrine.⁴⁴

Yet the Pacific war turned out to be an Orange war. In this instance alone, the navy's mirror-imaging was correct. The navy reasoned correctly that naval superiority had to be won in order to blockade and bomb the Japanese home islands (invasion was not, in the 1930s, even considered) and that a strategy of progressive advance across the islands of the central Pacific was essential.⁴⁵ An offensive war could not be conducted directly from Hawaii. A 1935 revision reflected a maneuver which showed the fleet could not cross the ocean until it denied central Pacific bases to Japan. In the exercise, a U.S. battle fleet was "destroyed" in a decisive battle off Midway, after severe attrition by "enemy" submarines operating from forward bases.⁴⁶ Plan Orange was the way the navy planned and practiced for war. Nonetheless, in the 1930s Orange remained doctrinal and inductive. It could not be a true strategy until the United States had a policy and the navy the operational capability for action in the western Pacific. Until then, all was unsettled.

In 1937 the Joint Board concluded that Orange was "unsound in general," and "wholly inapplicable." To compromise, the navy kept its plan for a measured move west, but with no timetable. This in effect acknowledged the prospective loss of Guam and the Philippines.⁴⁷ In 1939 Rainbow Five turned military attention to the Atlantic, proposing coalition action for the projection of "the armed forces of the United States to the Eastern Atlantic and to either or both of the African or European Continents, as rapidly as possible, consistent with [hemispheric defense], in order to effect the decisive defeat of Germany, or Italy, or both."⁴⁸ But no strategic decision was made, and the General Board, in its first "Are We Ready?" report at the end of August 1939 said the navy was "NOT READY to meet a serious EMERGENCY." The next year Roosevelt ordered the U.S. fleet from California to Hawaii, but no one could tell its commander in chief why it was there, for how long, or for what it should prepare. All that Admiral J. O. Richardson could say was that his fleet was not ready and that, as he wrote CNO Admiral Harold Stark, "I know of no flag officer who wholeheartedly endorses the present ORANGE plan."⁴⁹

What else could the navy do? Stark pushed Roosevelt for a declaration. The agents of foreign policy, Stark told the administration at the end of 1940, need to know "the National Objective," need answers to the fundamental questions: "Where should we fight the war, and for what objective. That

is to say," he continued, "until the question concerning our final military objective is authoritatively answered, I cannot determine the scale or the nature of the effort which the Navy may be called upon to exert in the Far East, the Pacific, and the Atlantic."⁵⁰ Roosevelt hid his hand. Stark drew his own conclusions, reflecting Rainbow Five. Stark's "Plan Dog" became the cornerstone of the strategy by which the allies won the war.⁵¹ What Stark did was turn *strategic* attention from matters of assistance to matters of war, from the Pacific to the Atlantic, and from hemisphere defense to an overseas offensive war taken onto the continent of Europe, in alliance with the British. These were momentous changes indeed. The head of the navy reversed the Pacific orientation of the army and the navy and, in the midst of a national climate of independence and neutrality, proposed to enter a coalition war whose strategic framework was already firmly established.

Unfortunately for the strategists, while the point of the Atlantic offensive was clear, the meaning of "defense" in the Pacific was not. Did Plan Dog mean defense of the status quo in Asia, akin to recreating the Washington system, with Japan told, or forced, to leave European colonies alone, and support given to China? Or did it mean a pull-back to the Alaska-Hawaii-Panama triangle, giving Japan freedom of action west of Hawaii, conceding Asia to Japan? Akira Iriye noted that it was impossible to reconcile the two positions, an Asian status quo (more or less the stated policy) and a contracted defense perimeter so as to give primary attention and resource allocation to Europe (Plan Dog).⁵²

Roosevelt decided to go part way with both. Because of the weakness of the Pacific fleet, the political choice was not as clear as Stark's memorandum suggested. Russell Weigley has pointed out that policy decisions do not have to await military readiness. Sometimes, in the interests of large principles and broad political considerations, they may run the risk of war if a state is confident it will, in the long run, win.⁵³ This was, more or less, what Roosevelt was doing in 1940 and 1941. The navy was left with the task, as Admiral Ernest J. King told the Atlantic Fleet when he took command, of "Making the Best of What We Have."⁵⁴

After Pearl Harbor, U.S. strategy drew on an outpouring of popular support based on hatred and revenge. Solidarity made possible the voluntary sacrifice demanded by total war. So intense was the shared passion that once the war began the government did not even specify war aims. The phrase "unconditional surrender," introduced in 1943, was enough. Roosevelt employed this formula without consulting his military advisers and made it the basis of the Allied war effort without study of its meaning for the conduct of the war.⁵⁵ It was a slogan, really, without strategic content or limitation. At the same time, total war compelled the armed forces and the nation to utmost exertion, and gave the military forces immense freedom. All kinds of conceptual and practical options opened that heretofore had been closed

by neutrality, treaties and parsimony. The only restraints to military and naval action were political considerations that were part of coalition warfare, and the availability of means. In both theaters the navy dispersed its ships as needed, its submarines, destroyers, and task forces, increasingly confident that at the point of contact, in the chase, in the convoy, in the battle, the United States had superior concentration to command the sea.

The allied plan called for the defeat of Germany first. Germany was the strongest opponent, endangering the most valued allies, threatening the areas most important to the United States, and the foe against which American force most readily could be brought to bear.⁵⁶ In the Atlantic, the navy sought local sea control—safety for the convoys and the amphibious invasion forces. It faced no hostile battle fleet there, and as German invasion was not a danger, there was little need there for U.S. battleships. As in the previous war, destruction of the submarines was a secondary goal. Further, because Germany had no oceanic commerce left to sink, the U.S. Navy put only a handful of submarines in the Atlantic, and then only briefly.

In the Atlantic, the United States followed the classic maritime strategy of an insular state detached from a main continental theater of combat. It projected power from a distance, kept the sea lanes open to its friends, and supported its allies already engaged on the ground. It protected the U.S. war economy. And, when it was ready, at places of its own choosing, and over the seas, it committed troops to the war on land.

The sea campaign was against the U-boats. Hitler, who had little strategic understanding of sea power, began his defense on the shore. Grand Admiral Erich Raeder had drawn plans for a great surface force, but Hitler was confident he could win a continental war without sea power and brought Germany into war at least a half-dozen years before the fleet could be ready. Thus, the burden of naval warfare was left to Admiral Karl Dönitz and his submarines.⁵⁷

Dönitz's strategy was simple: to sink more cargo vessels than the enemy could produce. "The *sinking of ships*," he wrote, "was the only thing that mattered."⁵⁸ To his critics, this was a misguided attention to quantity rather than to quality. Dönitz, however, posited tonnage destruction as the decisive factor. He sought to destroy enemy cargo vessels quickly, and until 1943 Germany was winning the battle of the Atlantic because Great Britain could not replace her losses. But the United States made up for those losses, and Dönitz, who never had enough attack submarines, could not overcome the flood of new ships from across the Atlantic.

For the submarine offensive begun against the coastal traffic of the United States in 1942, however, the U.S. Navy, despite its undeclared participation in the Atlantic war since the previous autumn, was "materially and mentally" unprepared.⁵⁹ Here was Mahan's nightmare come true. A European power (in the form of not more than a dozen U-boats) attacked, unopposed, the

main corridor of U.S. maritime commerce. It was like a blockade in which the navy could not find the enemy, resulting in the navy's inability to control the sea directly off its own shore. Marc Milner states a clear truth about the navy in the 1930s: "The greatest weakness of the USN's readiness for war in 1939 lay in its failure to allow for defence of maritime trade short of a decisive Mahanist-style battle between main fleets. Although its First World War experience was almost exclusively in small ships, guarding merchant vessels and chasing submarines, this aspect of naval war was almost wholly neglected in the interwar years. While American neglect of trade defence can be traced to many things, it is at least evidence that America was not a maritime empire in the traditional sense, or she would not have been able to indulge in such neglect."⁶⁰

At first Admiral King was willing to risk losses in order to gain faster voyages for individual ships—to move at least part of the cargoes of ores and oil through. He did not want to commit to convoy until there were enough escorts for both transatlantic and coastal traffic, but the first of many destroyer escorts was not launched until February 1943. Nonetheless, convoy was the answer, not mainly to destroy the predator, but to save his prey. After an expensive four-month delay, King took the essential first step and started coastal convoys.⁶¹

Convoys worked. They removed or protected the prey, and in the target-thinned environment, Dönitz, discouraged, moved away from the American coast. And so did sophisticated allied antisubmarine warfare. Code-breaking, air patrols, radio detection devices, and radar played increasingly important roles in locating and running down the enemy in mid-ocean. The three North Atlantic allies worked closely together.⁶² Even though new U-boats emerged, the United States was building more ships than the Germans could sink.

The allies won the tonnage battle in the second quarter of 1943, defeating Dönitz on his own terms. And *that*—not pursuit of the submarines or the wolf packs—was the essence of the North Atlantic strategy.⁶³ First things first; tonnage was the key to winning the war, in all theaters. This led to the greatest ship-building program in U.S. history, the *sine qua non* of victory. The ship construction program, which yielded 5,777 freighters and tankers, expressed what sea power meant to the United States in those years. Once the war began, the country fully met every definition of a maritime nation. In May 1943 Dönitz declared he had lost the Battle of the Atlantic.

Use of the Atlantic and the Mediterranean permitted the invasion of Europe, and that was the point of it all—the ultimate power projection. But the contribution of an amphibious fleet with which to make that invasion had to wait on the construction of merchant ships and escorts. "The most unstable element in the logistical process," wrote the historians of that process, "was not the capacity to produce, but the capacity to deliver fighting power to the firing line. . . . Failure to make provision in 1941 and 1942 for

a large and versatile fleet of amphibious shipping would, until late 1944, constitute the most persistent and restrictive single limitation on a war in which all the principal avenues of advance lay over water.”⁶⁴ By 1944, blooded in North Africa, Sicily, and Italy, the U.S. Navy was ready. It could transport the troops: 7,639,491 were embarked from U.S. ports to all theaters during the war. The record of security and mobility with which this enormous task was accomplished is a great tribute to the armed services and an unparalleled expression of sea power.

Getting troops and supplies ashore was the navy’s last mission. But until ports were seized and put into operation, landings had to be made across the beach. General George Marshall, Army Chief of Staff, said in 1943: “Prior to the present war I never heard of any landing-craft except a rubber boat. Now I think about little else.”⁶⁵ Lessons learned in each amphibious operation were applied to the next. Air superiority was a critical factor in every case. The Normandy invasion of June 1944 took place from a coalition armada under British command of 5,000 ships and craft, supported by 3,500 heavy bombers, 2,300 medium and light bombers and 5,000 fighters. A total of 2,479 U.S. Navy ships and craft were used by the American assault force. No larger fleet ever was, or ever will be, assembled, or a larger amphibious operation attempted, for its great advantage was to have near the objective an indestructible land-base, Great Britain (an island itself to be sustained by sea power). The millionth American soldier was put ashore in France in less than a month after D-day, on the Fourth of July 1944.

The landings of such a war machine are all the more remarkable when one recalls that at the very moment of the Normandy invasion, the United States was engaged in a tremendous assault on Saipan in the Marianas, the key to Japan’s inner defense ring. The two campaigns were of comparable strategic importance in exposing the enemy homelands and opening up the final stage of the war against both enemies. That two such enormous offensives could be conducted simultaneously, on opposite sides of the globe, against two entirely separate and powerful enemies, would have seemed impossible two years before. Such was the result of the country’s astonishing war mobilization and the value of its command of the seas.

Japan had gone to war with limited aims and a simple defensive strategy. It was committed to a land war in Asia, to continental expansion. For that it needed a resource base, which it could get from maritime expansion. The problem was in holding this maritime empire. A fortified island defense perimeter would guarantee regional control and compel the United States, the only remaining Western power capable of action after the war in Europe, to concede the western Pacific. Japan, in short, had limited goals, anticipating a brief war leading to a satisfactory peace settlement.

Both Japan’s policy and its defensive strategy were deeply flawed. First, the United States was neither intimidated nor resigned, and Pearl Harbor

turned the war against Japan to one fueled by emotion, by hatred and vengeance without restraint. The United States would concede nothing, and the Japanese found themselves in a total war. Second, the Americans took the offensive before the barrier was set in place. Instead of the prewar plan that called for the rollback of Japan after the defeat of Germany, King was unequivocal: action at once, to keep the Japanese from consolidating their line. His insistence on simultaneous offensives, King's biographer stated, was "the most important contribution to victory he would make in the Second World War."⁶⁶ Third, neither Japan's economy nor its forces were strong enough to hold the ring. Static island fortresses, even with air bases, did not constitute an impenetrable barrier unless they were supported by local command of the sea. Land-based air was not an alternative defense. Half the aircraft destroyed by American carrier planes were hit on the ground.

The Japanese naval force was stretched too thin to command the seas or cover the immense perimeter. Nor was it able to prevail when force was concentrated. Either it failed to follow through initial tactical advantage, or it was overwhelmed by a larger, better organized concentration of force. Together, all this destroyed Japan's strategy of static defense. And once gone, Japan was doomed. Its plans assumed a battle of annihilation, not a war of attrition. Warships were built for decisive battle, not defense of sea lanes, transport, or antisubmarine warfare,⁶⁷ and so Japan's lifelines were exposed. That was why Prime Minister General Hideki Tojo gave such significance to the U.S. submarine attrition campaign.

The submarine, which the navy designated in 1930 for fleet support, was instantly redefined after Pearl Harbor as a weapon of unrestricted warfare against all Japanese ships and sent to maraud virtually at will.⁶⁸ Its stealth and dispersal—the very opposite of joined battle by massed force—turned around the expected progression of battle, or at least radically foreshortened it. The United States put Japan's supply lines under attack at the very beginning of the war; a war of interdiction began while the enemy surface force was still afloat. The navy made the *guerre de course* as important as a fleet engagement. Submariners insisted that this was in accord with the broader fundamentals of sea power. Philip M. Morse, opening the official "A Survey of Subsurface Warfare in World War II," published in 1946, wrote: "Though the introduction of the submarine changed the tactical picture, it did not change the rules of grand strategy outlined by Mahan."⁶⁹ Certainly Tojo was right when he said that the destruction of merchant shipping was one of the three principal factors in Japan's defeat.⁷⁰ "Japan lost the Pacific War," Theodore Roscoe wrote, "on the date that her merchant losses exceeded all possibility of replacement."⁷¹

Tojo's other two explanations of Japan's defeat further illustrate the dimensions of U.S. forward deployment for offensive sea control and its swift adaptation of strategy and forces to the circumstances of war. One was the

practice of leapfrogging, of slipping through the chain, bypassing island strongholds, leaving Japanese barricade forces to wither uncontested, while the offensive pressed on toward positions within the perimeter to junctions at which to choke the home islands, or to bases to subject them to direct attack. Submarines, carriers, and amphibious operations all applied to the strategy of offensive sea control against an enemy dependent on the sea, maintaining superiority at the decisive points of action while applying the "remorseless, steady pressure" of which Mahan wrote, "cutting the resources of the enemy" while maintaining one's own.⁷²

The third item on Tojo's list was the ability of fast-carrier task forces and task groups to conduct protracted operations at sea. Mobility was the advantage carriers had over land bases, mobility was what was needed in ocean reaches, and sustained mobility meant the ability to keep up the pressure. The carrier force moved from place to place, from island to island, swinging from theater to theater, without rest, its dive bombers and fighters striking in the center, then in the south and then in the center again. Such mobility supported the whipsaw approach enshrined in the dual-strategy of two offensives: General Douglas MacArthur's from the south and Admiral Chester Nimitz's across the central Pacific towards the Marianas following War Plan Orange's island reduction strategy.

It has taken time to establish the value of carriers, to develop a doctrine of use comparable to validation of the battleship fifty years before by the battle fleet. Decisions were made from experiences drawn from the carriers afloat, which before 1938 numbered only three or four.⁷³ The concept of the carrier as the core of a separate offensive striking force, the nucleus of a new tactical formation, as opposed to a supporting spotter force, was established in the famous Fleet Problem IX of 1929. The *Saratoga* made an all-night 30-knot dash to a position 140 miles off the west coast of Panama, launched seventy planes before dawn in a surprise attack, and thirteen in a second strike, and without interference "destroyed" the locks and airfields of the Pacific side of the canal. Almost all of her aircraft were recovered back on *Saratoga's* deck. One of the authors of the plan recalls that Admiral Pratt, in charge of the force, called the strike "the most brilliantly conceived and most effectively executed naval operation in our history."⁷⁴

It hardly mattered that the "enemy" fleet had already gotten through the canal. The exercise summed up a decade of thinking about carrier use. It established the possibility of carrier groups operating in advance of the battle line and was tested in the exercise the following year when the carrier appeared as a tactical unit in the force organization for the first time—the basic step to what was to become, in the war, the fast carrier task force, operating independently from the battle line. The exercise of 1929 confirmed for Orange war planners that naval aviation could play, and must play, a central part in protecting a westward fleet movement. Whether the carriers

should be large or small, concentrated or dispersed, was subject to debate. But the main point was established. Carrier air power was an offensive force, part of the offensive sea control mission, part of an evolving definition of sea power as naval strength.

In light of this it seems almost churlish to note that had the exercise off Panama been war, the 78 planes that returned to the *Saratoga's* deck would have found her underwater, having been "sunk" several times that morning, twice by battleship fire, once by a submarine, and once by planes from her sister ship *Lexington*, which had found her undefended. This last action would have been anomalous, as the *Lexington* herself had previously been put "out of action" by battleships and then "destroyed" by friendly planes that mistook her for the *Saratoga*.⁷⁵ Yet this information is important. The vulnerability of the platform remained the weak point in carrier doctrine.

It was the entirely unexpected destruction of the battle line at Pearl Harbor, by the largest carrier strike ever yet launched, that catapulted the carrier into the role it played in the Pacific war. The carriers (fortuitously saved), the heavy cruisers, and some submarines were the only remaining force in the Pacific. The way to a new force doctrine opened in a morning. In war, as in biological evolution, changes are often considered adaptive leaps, although in war, as probably in evolution, "punctuated equilibrium" is most often a dramatically noticed summation of many changes—with change still in progress. There was a real jump here, though, as well as a consolidation. When the battleships that were commissioned after Pearl Harbor joined the fleet, they were sent to protect the carriers. In December 1941 the navy had 8 carriers with 521 planes aboard. On V-J Day, only four years later, naval aviation commanded 41,272 planes and had 99 aircraft carriers afloat, bearing altogether about 4,000 aircraft on their decks. Amphibious operations from Guadalcanal to Iwo Jima and Okinawa were undertaken in large measure to seize, secure, or establish land air fields. A carrier is a mobile air field. The Pacific offensive won command of the sea thanks to naval air.

Sustained mobility, the essence of the navy's Pacific operations, was made possible by the 2,930 ships and craft of the indefatigable service squadrons which kept troops and warships supplied so that they, above all the fast-carrier task forces, could conduct campaign after campaign as, in effect, base support came to them.⁷⁶ Here was the greatest forward naval deployment possible, the self-supplying fleet. Thereafter, a powerful U.S. force could go to any sea and stay on any station as long as needed, so long as it had sufficient mobile service support. This was the foundation of the navy's postwar claim to strategic value: global flexibility.

These and many other material, tactical, and strategic innovations were beyond Japanese capabilities to withstand. Neither side had foreseen so many doctrinal and operational asymmetries. The Americans made changes quickly, seizing advantages. The Japanese government lacked comparable adaptability,

just as the Japanese society and economy lacked the productive base and manpower reserve to oppose the onslaught. In this greatest of all naval wars, in the working experience of great campaign after great campaign, the navy's offensive sea control took many forms of both dispersal and concentration of force.

Above all, the navy now claimed that all the world's elements were connected to sea power. To control the sea the navy had to project its force not only upon, but also under, above, and from the water's surface. An offensive naval air force, operations in direct support of land battles and against naval targets ashore, and attack submarines on detached missions identified a new triphibious service.

In the war, King told a Senate committee in 1946, the navy had dealt with: "(1) seaborne objectives, (2) with land objectives that can be reached from the sea, (3) with movement of ground forces overseas and establishing them on shore, (4) with movement of ground elements of air forces overseas, and last but not least, (5) in keeping the seaways clear and open for the line of supply to all forces overseas—ground, sea, and air."⁷⁷ Here was the foundation of a true maritime strategy, a reintegrating definition of sea power, and of the navy's strategic mission.

Nimitz confirmed this to the same Senate committee: "Fleets do not exist only to fight other fleets and to contest with them the command of the sea. Actually, command of the sea is only the means to an end. Wars cannot be concluded by naval action alone or by air action alone. Wars are conducted and concluded by the combined action of sea, land, air, diplomatic, and economic effort."⁷⁸

Sea power was reexpressed in terms of new weapons of naval warfare, with doctrines reconstituted to match them, as a national, offensive, maritime strategy, with missions against the land. The question was: In the postwar world did those missions count? If they did not, the navy might be reduced to an escort and transport force, as it had been in 1917-18. As King and Nimitz spoke, the future of the offensive navy was being called into question. The service had outdone itself in the war. The context of its former deductions no longer existed. The maritime security of the United States and its trade was assured. There was no foe at sea. In 1945, maintaining an offensive naval strength no longer seemed necessary. Two weeks after the apotheosis on Tokyo Bay, the secretary of the navy appeared before the House Committee on Naval Affairs and asked the question Congress wanted answered: "Why should we maintain any Navy after this war?"⁷⁹

The country was suffering from a new kind of insecurity, from a global threat emanating from a foe beyond the navy's reach. Neither King nor Nimitz had shown how the navy might be used against the continental might of the Soviet Union.

Fifty years before, the navy had made power projection the basis of American strategic culture.⁸⁰ After 1945 the air force and the army took this claim away, took up the role of strategic defense and adopted the principles by which offensive sea control had operated, applying them to their own missions and weapon systems. After 1945 "air power" advocates appropriated Mahan's phrases, asserting that air and space were the wide commons, the great highways of the world. Security was found in an offensive strategy of fleets of the air. The navy was no longer the first line of defense. Permanent readiness was vested in bombers. Army divisions were forward deployed overseas. Sea control meant nothing to an air power advocate. The enemy was deep inside the world's largest landmass. The air force could win the war quickly, cheaply, and at a distance, in the manner of Mahan. For an air power advocate, or an army general, the United States was again a continental state, facing a continental enemy.

Postwar naval strategic thinking luffed, crimped by lack of practice. Admiral Arleigh Burke noted the cost of King's reluctance (when CNO during the war) to talk even to his staff about general policies. "As a result, people in the Navy did not know very much about strategy. . . . That's why we did not have any organization to lay out the Navy's case or defend ourselves. . . . We suffered from a lack of knowledge within the Navy of what the Navy was all about and how the Navy was going to be run."⁸¹ Few naval officers wanted to get involved in planning or public relations, and fewer still in the interservice disputes. In the Naval War College's copy of Vincent Davis's *The Admirals Lobby*, at the place where the author argues for a strong public relations officer in the navy, a reader wrote: "A sailor's place is on his ship, a ship's place is at sea."

That was the situation a year after the war. Popular interest in sea power had waned. No one could say what the navy was going to do, or whether the United States should really be considered a maritime country after all. It was not only the size and composition of the navy that was in question, but the role of the service itself. Form would follow function. The navy had to find a way to participate in an air war and a land war against the Soviet Union, or it might lose its air arm to the air force, and its marines to the army. King had adumbrated a diversified navy when he described the capture of Okinawa. "During the three months that this operation was in progress our Pacific Fleet—the greatest naval force ever assembled in the history of the world—was engaged in a continuous battle which for sustained intensity has never been equalled in naval history; yet at this time the Japanese Navy had virtually ceased to exist—we were fighting an island, not an enemy fleet."⁸² With the defeat of Japan, the only possible threat to the United States was the Soviet Union. What remained for sea power against that continental state? In 1946 the navy's future as an offensive force depended on its ability to answer that question.

Notes

1. Rear Admiral Stephen B. Luce, "On the Study of Naval Warfare as a Science," *U.S. Naval Institute Proceedings*, v. 12, no. 4, 1986, p. 546.
2. Donald M. Schurman, "Mahan Revisited" in John B. Hattendorf and Robert S. Jordan, eds., *Maritime Strategy and the Balance of Power: Britain and America in the Twentieth Century* (New York: St. Martin's, 1989), pp. 103-106.
3. Harold and Margaret Sprout, *The Rise of American Naval Power, 1776-1918* (Princeton: Princeton Univ. Press, 1946), pp. 207-212, and Norman Friedman, *U.S. Battleships: An Illustrated Design History* (Annapolis: Naval Institute Press, 1985), pp. 23-30. Thus Robert Seager called the Naval Act of 1890 "a culmination and a beginning." Robert Seager II, "Ten Years before Mahan: The Unofficial Case for the New Navy, 1880-1890," *Mississippi Valley Historical Review*, v. 40, no. 3, 1953, p. 511. The first battleships, appropriated in 1886 and commissioned in 1895, were ordered to meet a shift in naval balance in the hemisphere, as Chile, Argentina, and Brazil acquired modern warships from Europe, at a time when American vessels were, in Admiral George Dewey's words, "the laughing stock of the nations." They were in effect part of an arms race caused by advances in naval engineering. John D. Reilly, Jr. and Robert L. Scheina, *American Battleships, 1886-1923: Predreadnought Design and Construction* (Annapolis: Naval Institute Press, 1980), p. 21. Dewey's quote is from *Autobiography of George Dewey* (New York: Scribner's, 1913), pp. 162-163.
4. C.I. Hamilton, "Naval Power and Diplomacy in the Nineteenth Century," *Journal of Strategic Studies*, v. 3, no. 1, 1980, pp. 77-88. For a good survey of the "old navy," just before Mahan, in which Mahan served, see Kenneth J. Hagan, *American Gunboat Diplomacy and the Old Navy, 1877-1889* (Westport: Greenwood Press, 1973).
5. H. David Bess and Martin T. Farris, *U.S. Maritime Policy: History and Prospects* (New York: Praeger, 1981), p. 7.
6. On Tracy see Benjamin Franklin Cooling, *Benjamin Franklin Tracy: Father of the American Fighting Navy* (Hamden: Archon, 1973), pp. 72-78 and, on his connection with Mahan and the navalists, Walter R. Herrick, Jr., *The American Naval Revolution* (Baton Rouge: Louisiana State Univ. Press, 1966).
7. Alfred T. Mahan, *Naval Strategy* (Boston: Little, Brown, 1918), p. 5.
8. Mahan of course was pulling together ideas present but undeveloped in naval circles, as Elting E. Morison says in *The War of Ideas: The United States Navy, 1870-1890* (Colorado Springs: U.S. Air Force Academy, 1969), p. 8. See also Peter Karsten, *The Naval Aristocracy: The Golden Age of Annapolis and the Emergence of Modern American Navalism* (New York: Free Press, 1972), p. 326, and Robert Seager II, *Alfred Thayer Mahan: The Man and His Letters* (Annapolis: Naval Institute Press, 1977), pp. 160-190, 197-200.
9. Vincent Davis, *The Admirals Lobby* (Chapel Hill: Univ. of N.C. Press, 1967), p. 113. Russell Weigley makes a further point. A decisive sea battle of machines promised many fewer casualties than a series of land battles between masses of men. "Among the many reasons for the vogue of Mahan," Weigley wrote, "one surely was that he promised a way to relatively anesthetic victory in war." Violence would be confined, or so popular expectation was led to believe, to a single battle offshore, unheard and unseen. Russell Weigley, *The American Way of War: United States Military Strategy and Policy* (Bloomington: Indiana Univ. Press, 1977), p. 192.
10. Graham A. Cosmas, *An Army for Empire: The United States Army in the Spanish-American War* (Columbia: Univ. of Missouri Press, 1971), p. 8.
11. Wayne P. Hughes, Jr., *Fleet Tactics: Theory and Practice* (Annapolis: Naval Institute Press, 1986), pp. 58-62.
12. The best book on the war with Spain is David F. Trask, *The War with Spain in 1898* (New York: Macmillan, 1981), with pp. 72-96 for naval plans and preparations. Had the superior Spanish relief squadron arrived in the Philippines, Dewey would have had to give up his position in Manila Bay. *Ibid.*, pp. 375-377, and Robert Seager II and Doris Maguire, eds., *Letters and Papers of Alfred Thayer Mahan: Volume III, 1902-1904* (Annapolis: Naval Institute Press, 1975), pp. 445-447. Mahan claimed that Dewey could have returned and destroyed the Spanish reinforcements when the two monitors sent to reinforce him arrived. Alfred T. Mahan, *Lessons of the War with Spain* (Boston: Little, Brown, 1899), pp. 34-35. But it is more likely that the Spaniards might have destroyed those unseaworthy vessels before Dewey could join up with them.
13. Mahan gives full recognition to the importance of this dimension in his *Lessons of the War with Spain*.
14. Friedman, *U.S. Battleships*, pp. 30, 37-42; Emanuel Raymond Lewis, *Seacoast Fortifications of the United States* (Washington: Smithsonian Institution Press, 1970), p. 99, and Gordon C. O'Gara, *Theodore Roosevelt and the Rise of the Modern Navy* (Princeton: Princeton Univ. Press, 1943), p. 71.
15. Ronald Spector, *Admiral of the New Empire: The Life and Career of George Dewey* (Baton Rouge: Louisiana State Univ. Press, 1974), p. 149.

16. Quoted in John D. Hayes, "The Influence of Modern Sea Power, 1945-1970," U.S. Naval Institute Proceedings, May 1971, pp. 279-280. The correct citation, *The Critic*, January 1898, is given in *The Writings of Stephen B. Luce*, eds. John D. Hayes and John B. Hattendorf (Newport: Naval War College Press, 1975), pp. 216-217.

17. Albert G. Stillson, "Military Policy Without Political Guidance: Theodore Roosevelt's Navy," *Military Affairs*, v. 26, no. 1, 1961, p. 23.

18. See Paul Y. Hammond, *Organizing for Peace: The American Military Establishment in the Twentieth Century* (Princeton: Princeton Univ. Press, 1961), p. 83.

19. See Stillson, "Military Policy without Political Guidance: Theodore Roosevelt's Navy," pp. 18-31.

20. Seward W. Livermore, "The American Navy as a Factor in World Politics, 1903-1913," *American Historical Review*, v. 63, no. 4, 1958, p. 879. Also, Richard D. Challener, *Admirals, Generals, and American Foreign Policy, 1898-1914* (Princeton: Princeton Univ. Press, 1973), pp. 111-117.

21. Roosevelt told his Secretary of State in July 1907: "In the first place I think it will have a pacific effect to show that it can be done; and in the next place, after talking thoroly over the situation with the navy board I became convinced that it is absolutely necessary for us to try in time of peace to see just what we could do in the way of putting a big battle fleet in the Pacific, and not make the experiment in time of war." Elting E. Morison, ed., *The Letters of Theodore Roosevelt: Volume V, The Big Stick, 1905-1907* (Cambridge: Harvard Univ. Press, 1952), p. 717.

22. Holger H. Herwig and David F. Trask, "Naval Operations Plans between Germany and the USA, 1898-1913: A Study of Strategic Planning in the Age of Imperialism" in *The War Plans of the Great Powers, 1880-1914*, ed. Paul M. Kennedy (London: Allen & Unwin, 1979), p. 62.

23. John H. Maurer, "Fuel and the Battle Fleet: Coal, Oil, and American Naval Strategy, 1898-1925," *Naval War College Review*, November-December, 1981, pp. 66-67.

24. Arthur S. Link, *Woodrow Wilson and the Progressive Era, 1910-1917* (New York: Harper, 1954), p. 190.

25. Letter of 30 July 1915. *Annual Report of the Navy Department for the Fiscal Year 1915* (Washington: U.S. Govt. Print. Off., 1916), pp. 73-74.

26. William R. Braisted, *The United States Navy in the Pacific, 1909-1922* (Austin: Univ. of Texas Press, 1971), pp. 201-202.

27. Arthur Hezlet, *The Submarine and Seapower* (New York: Stein and Day, 1967), p. 106.

28. Rear Admiral William Sims, wartime liaison in London, and Captain William Pratt, Assistant Chief of Naval Operations in Washington, were exceptions in thinking that wartime cooperation could continue. They approved parity with Great Britain, but thought rivalry was unnecessary.

29. None thought this more strongly than William Benson, CNO until September 1919. The country, he said in 1919, was "on the threshold of the keenest and most active commercial competition that the world has ever seen." A year later, as head of the Shipping Board, he was convinced his task was to conduct a "fierce and final competition" with Britain for the world's trade. Jeffery J. Safford, "Anglo-American Maritime Relations during the Two World Wars: A Comparative Analysis," *American Neptune*, no. 41, 1981, p. 268, and Mary Klachko with David F. Trask, *Admiral William Shepherd Benson, First Chief of Naval Operations* (Annapolis: Naval Institute Press, 1987), p. 183.

30. Memorandum by Cdr. W. S. Pye. General Board Study Serial No. 894, pp. 420-426.

31. Even when this was understood, "Red" war games continued to be played at the Naval War College, mainly for instructional convenience, it is true, to help officers think about war against a slightly stronger naval power and to familiarize them with the Atlantic, but keeping alive for many years the sea power sense that the Royal Navy posed a possible threat. As late as 1938 there was a Blue-Red game, culminating in the final decisive "Battle of Sable Island." Norman Friedman, *U.S. Cruisers: An Illustrated Design History* (Annapolis: Naval Institute Press, 1980), p. 10; Michael Vlahos, *The Blue Sword: The Naval War College and the American Mission, 1919-1941* (Newport, R.I.: Naval War College Press, 1980), pp. 99-112; William R. Braisted, "On the American Red and Red-Orange Plans, 1919-1939" in *Naval Warfare in the Twentieth Century, 1900-1945: Essays in Honour of Arthur Marder*, ed. Gerald Jordan (London: Croom, Helm, 1977), pp. 167-185; and John B. Hattendorf, B. Mitchell Simpson III, and John R. Wadleigh, *Sailors and Scholars: The Centennial History of the U.S. Naval War College* (Newport, R.I.: Naval War College Press, 1984), p. 164.

32. Armin Rappaport, *The Navy League of the United States* (Detroit: Wayne State Univ. Press, 1962), p. 61.

33. Louis Morton, "War Plan ORANGE: Evolution of a Strategy," *World Politics*, v. 11, no. 2, 1959, p. 224.

34. William R. Braisted, *The United States Navy in the Pacific, 1909-1922*, pp. 526-527, and Lawrence H. Douglas, "Robert Edward Coontz, 1 November 1919-21 July 1923," in R.W. Love, Jr., ed., *The Chiefs of Naval Operations* (Annapolis: Naval Institute Press, 1980), p. 29.

35. Lecture of 14 October 1922. Naval War College Archives, Record Group 8.

36. Raymond G. O'Connor, "The 'Yardstick' and Naval Disarmament in the 1920's" in his *War, Diplomacy, and History: Papers and Reviews* (n.p., Univ. Press of America, 1979), p. 104.
37. Kenneth McDonald shows that timing was all-important for an agreement, that the administration's ratios were just as arbitrary as the General Board's, and to get the freeze, the administration had to make a bold, stop-now, proposal. J. Kenneth McDonald, "The Washington Conference and the Naval Balance of Power, 1921-2," in Hattendorf and Jordan, eds., *Maritime Strategy and the Balance of Power*, pp. 209-210. But the administration handled the navy roughly. Robert Albion reported what he called "one of the most amazing incidents in the history of the Navy Department," when civilian authority in the person of Assistant Secretary Theodore Roosevelt, Jr. appeared before the General Board, who was preparing advice for the conference, and told it either to cut down its figures "or we will tear the heart out of your Navy." Robert G. Albion, *Makers of Naval Policy, 1789-1947*, ed. Rowena Reed (Annapolis: Naval Institute Press, 1980), p. 230.
38. Quoted in Braisted, *The United States Navy in the Pacific, 1909-1922*, p. 595.
39. Rear Admiral William V. Pratt, "Naval Policy and Its Relation to World Politics," U.S. Naval Institute *Proceedings*, v. 49, no. 7, 1923, p. 1084.
40. W. V. Pratt, "Naval Policy and Its Relation to World Politics," p. 1073. See also Gerald W. Wheeler, *Admiral William Veazie Pratt, U.S. Navy* (Washington: Dept. of the Navy, 1974), pp. 185-186.
41. *The Memoirs of Herbert Hoover: The Cabinet and the Presidency, 1920-1933* (New York: Macmillan, 1952), p. 338.
42. Gerald E. Wheeler, "Naval Diplomacy in the Interwar Years," in *Versatile Guardian: Research in Naval History*, ed. Richard A. von Doenhoff (Washington: Howard Univ. Press, 1979), pp. 45-46, and Craig Symonds, "William Veazie Pratt," in *The Chiefs of Naval Operations*, ed. Love, pp. 76-77.
43. Raymond O'Connor suggests Hoover also may have viewed Japan as a bulwark against Soviet aggression in China, thanks to its acknowledgement in London of China's territorial integrity. Raymond G. O'Connor, *Perilous Equilibrium: The United States and the London Naval Conference of 1930* (Lawrence: Univ. of Kansas Press, 1962), p. 83.
44. The navy's main mission, through all this, it is important to note—more important than defense of the Canal or the Philippines—remained long-range coastal defense of the United States. Defined in Mahanian terms, this was based on the principle of meeting the invader offshore. The question was, how far offshore? Harbor protection was the province of the army's coastal artillery. During the 1930s, the navy's responsibility for defense beyond the range of army batteries was challenged by air power advocates in the army who claimed that their land-based aircraft could better prevent enemy ships from nearing the coast than the navy could. This was a claim for a strategic as well as a support function for air power. It was not accepted by the high command of either service, but on the other hand, the army did not give up the claim, either. A controversy smoldered, unresolved, through the 1920s and 1930s over who had authority for offshore defense. This did not affect blue-water planning, however. See John F. Shiner, "The Air Corps, the Navy, and Coast Defense, 1919-1941," *Military Affairs*, v. 45, no. 3, 1981, pp. 113-121.
45. See Thomas Hone and Mark David Mandeles, "Managerial Style in the Interwar Navy," *Naval War College Review*, September-October, 1980, pp. 88-90, 98; Edward S. Miller, "War Plan Orange, 1897-1941: The Blue Thrust through the Pacific," *Naval History: The Seventh Symposium of the U.S. Naval Academy*, ed. William B. Cogar (Wilmington: Scholarly Resources, 1988), pp. 239-248; and Michael Vlahos, "Wargaming, an Enforcer of Strategic Realism: 1919-1942," *Naval War College Review*, March-April, 1986, pp. 7-22. Michael Vlahos looked at 136 war games and chart maneuvers played in this period in Newport. One hundred and twenty-seven simulated a war with Japan. Vlahos, *The Blue Sword*, p. 143. Waldo Heinrichs quotes a graduate who said that in the 1930s the War College substituted a Red game (against the British) every now and then "just to be able to say we weren't always fighting the Orange Fleet." Heinrichs, "The Role of the United States Navy," p. 203. Michael Doyle has argued that the navy was lukewarm to Orange because of its unsolvable problems and held on to it largely to keep open to other strategic possibilities, such as British cooperation. Michael K. Doyle, "The U.S. Navy and War Plan Orange, 1933-1940: Making Necessity a Virtue," *Naval War College Review*, May-June 1980, pp. 49-63.
46. The exercise is described in Stephen E. Pelz, *Race to Pearl Harbor: The Failure of the Second London Naval Conference and the Onset of World War II* (Cambridge: Harvard Univ. Press, 1974), p. 198. On the other hand, the navy signally failed to integrate into its operational plans the fine theoretical work done within the Marine Corps on amphibious doctrine, or support the Marines' amphibious exercises with transports and logistics. Jeter A. Isely and Philip A. Crowl, *The U.S. Marines and Amphibious War: Its Theory, and Its Practice in the Pacific* (Princeton: Princeton Univ. Press, 1951), pp. 14-71.
47. Louis Morton, *The United States Army in World War II. The War in the Pacific. Strategy and Command: The First Two Years* (Washington: Dept. of the Army, 1962), p. 39; John Major, "William Daniel Leahy, 2 January 1937-1 August 1939," *The Chiefs of Naval Operations*, ed. Love, p. 105; and Louis Morton, "War Plan ORANGE: Evolution of a Strategy," *World Politics*, v. 11, no. 2, 1959, pp. 247-248.

48. Maurice Matloff and Edwin M. Snell, *Strategic Planning for Coalition Warfare, 1941-1942* (Washington: Dept. of the Army, 1953), p. 8.
49. J.O. Richardson, *On the Treadmill to Pearl Harbor* (Washington: Dept. of the Navy, 1973), pp. 307-333 and *Pearl Harbor Attack: Hearings. . . . Seventy-Ninth Congress* (Washington: U.S. Govt. Print. Off., 1946), Pt. 14, pp. 933, 940, 986. The decision to keep the fleet at Hawaii is discussed in Robert J. Quinlan, "The United States Fleet: Diplomacy, Strategy, and the Allocation of Ships (1940-1941)," *American Civil-Military Decisions*, ed. Harold Stein, (Birmingham: Univ. of Alabama Press, 1963), pp. 153-201.
50. For Stark's famous memorandum see *Strategic Planning in the United States Navy: Its Evolution and its Execution, 1891-1945* (Wilmington: Scholarly Resources, 1977), microfilm reel 5.
51. As such, Stark's memorandum earned Louis Morton's judgment as "perhaps the most important single document in the development of World War II strategy." Louis Morton, "Germany First: The Basic Concept of Allied Strategy in World War II" in Kent R. Greenfield, ed., *Command Decisions* (New York: Harcourt, Brace, 1959), p. 26.
52. Akira Iriye, *The Origins of the Second World War in Asia and the Pacific* (London: Longman, 1987), pp. 122-123.
53. Russell Weigley, "The Role of the War Department and the Army" in eds. Borg and Okamoto, *Pearl Harbor as History*, p. 188.
54. This memorandum is printed in Samuel Eliot Morison, *The Battle of the Atlantic, September 1939-May 1943* (Boston: Little, Brown, 1950), pp. 52-53.
55. Maurice Matloff and Edwin M. Snell, *Strategic Planning for Coalition Warfare, 1941-1942* (Washington: Dept. of the Army, 1953), p. 380.
56. For the logistical advantages see Robert W. Coakley and Richard M. Leighton, *Global Logistics and Strategy, 1943-1945* (Washington: U.S. Govt. Print. Off., 1968), p. 800.
57. The overall naval campaign is detailed in Michael Salewski, *Die deutsche Seekriegsleitung, 1935-1945* (2 vols.) (Frankfurt am Main: Bernard & Graefe, 1970, 1975).
58. Karl Dönitz, *Memoirs: Ten Years and Twenty Days*, trans. R. H. Stevens (Cleveland: World, 1959), pp. 13-16, 150, 228 and J. P. Mallmann Showell, *The German Navy in World War Two* (Annapolis: Naval Institute Press, 1979), pp. 32-33.
59. Samuel Eliot Morison, *History of United States Naval Operations in World War II: Volume I, The Battle of the Atlantic, September 1939-May 1943* (Boston: Little, Brown, 1950), p. 200.
60. Marc Milner, "Anglo-American Naval Co-operation in the Second World War, 1939-1945," in eds. Hatendorf and Jordan, *Maritime Strategy and the Balance of Power*, p. 246.
61. Robert William Love, Jr., "Ernest Joseph King, 26 March 1942-15 December 1945," *The Chiefs of Naval Operations*, ed. Love, p. 154 gives this reasoning for King's delay. There is a useful discussion of the costs and benefits of independents vs. convoys based on the experience of this period by the Operations Evaluation Group in Charles M. Sternhell and Alan M. Thorndike, *Antisubmarine Warfare in World War II* (Washington: Dept. of the Navy, 1946), pp. 93-112. An indictment of King's failure during this period to pursue an offensive ASW capability based on technological innovation is leveled by Montgomery C. Meigs, *Slide Rules and Submarines: American Scientists and Subsurface Warfare in World War II* (Washington: National Defense Univ. Press, 1990), chaps. 2-3. See also Eliot A. Cohen, "Learning Failure: American Antisubmarine Warfare in the Atlantic, 1942" in Eliot A. Cohen and John Gooch, *Military Misfortunes: The Anatomy of Failure in War* (New York: Free Press, 1990), chap. 4.
62. The partnership with Canada deserves notice. Very early the RCN urged convoys on King, but its own failures in the mid-Atlantic air-gap in late 1941 suggested to King that he should hold off until he had a strong escort force available. This seems to have been a false analogy in King's mind between inshore and oceanic antisubmarine escorts. Along the coast, aircraft found it easy to help. After the convoy issue was sorted out and a central shipping control established, all went well, and naval cooperation with the Canadians developed into a special kind of "special relationship." Marc Milner, "Anglo-American Naval Cooperation," pp. 252-254, and *idem.*, "RCN-USN, 1939-1945: Some Reflections on the Origins of a New Alliance," *Naval History: The Seventh Symposium of the U.S. Naval Academy*, ed. William B. Cogar (Wilmington: Scholarly Resources, 1988), pp. 276-283.
63. The story is told by Frederic C. Lane, *Ships for Victory: A History of Shipbuilding under the U.S. Maritime Commission in World War II* (Baltimore: Johns Hopkins Press, 1951). See also Terry Hughes and John Costello, *The Battle of the Atlantic* (New York: Dial, 1977), chap. 14, "Winning the War with Ships."
64. Richard M. Leighton and Robert W. Coakley, *Global Logistics and Strategy, 1940-1943* (Washington: Dept. of the Army, 1955), pp. 208, 712.
65. Robert E. Sherwood, *Roosevelt and Hopkins: An Intimate History* (New York: Harper, 1948), pp. 783-784.
66. Buell, *Master of Sea Power*, p. 189.
67. Rear Admiral Toshiyuki Tokoi, "Thoughts on Japan's Naval Defeat," U.S. Naval Institute *Proceedings*, October 1960, pp. 68-75.

68. Clay Blair, Jr., *Silent Victory: The U.S. Submarine War Against Japan* (New York: Lippincott, 1963), pp. 361-362; Richard Dean Burns, "Regulating Submarine Warfare, 1921-1941: A Case Study in Arms Control and Limited War," *Military Affairs*, v. 35, no. 2, 1971, p. 59; J. E. Talbott, "Weapons Development, War Planning, and Policy: The U.S. Navy and the Submarine, 1917-1941," *Naval War College Review*, May-June 1984, pp. 56, 59 and Robert E. Kuenne, *The Attack Submarine: A Study in Strategy* (New Haven: Yale Univ. Press, 1965), p. 156. Doctrine of 1939 declared: "The primary task of the submarine is to attack enemy heavy ships."

69. Philip M. Morse, "The Antisubmarine Problem" in Office of Scientific Research and Development, *Summary Technical Report of Division 6, NDRC: Volume I, A Survey of Subsurface Warfare in World War II* (Washington: U.S. Dept. of the Navy, 1946), p. 7.

70. Samuel Eliot Morison, *The Two Ocean War* (Boston: Little, Brown, 1963), p. 282. Submarines sank 201 warships (in contrast to 161 sunk by carrier air and 112 by surface vessels) and 1,113 cargo ships (twice all other causes combined), at a very low loss. The Joint Army-Navy Assessment Committee, *Japanese Naval and Merchant Shipping Losses During World War II by All Causes* (Washington: U.S. Govt. Print. Off., 1947), p. vii.

71. Theodore Roscoe, *United States Submarine Operations in World War II* (Annapolis: Naval Institute Press, 1949), p. 491.

72. Mahan's idea of sea power in this quotation is according to his concept of position, not just engagement, "supporting war in scenes where it does not appear itself, or appears only in the background, and striking open blows at rare intervals. . . ." Morse's point quoted above applies to the strategy of offensive sea control. Mahan's words are found in *The Influence of Sea Power Upon History, 1660-1783* (Boston: Little, Brown, 1890), p. 209.

73. In light of the criticism that the navy doctrinally slighted the carriers in favor of the battleship in the 1920s and 1930s, see the evidence in the following articles by Thomas C. Hone, which show that the navy in fact promoted diversity and ran by good management within its budgetary and treaty limits: "Battleships vs. Aircraft Carriers: The Patterns of U.S. Navy Operating Expenditures, 1932-1941," *Military Affairs*, v. 41, no. 3, 1977, pp. 133-141; "Spending Patterns of the United States Navy, 1921-1941," *Armed Forces and Society*, v. 8, no. 3, 1982, pp. 443-462; "The Effectiveness of the 'Washington Treaty' Navy," *Naval War College Review*, November-December 1979, pp. 35-59; and Mark David Mandeles, "Managerial Style in the Interwar Navy: A Reappraisal," *Naval War College Review*, September-October, 1980, pp. 88-101; and "Interwar Innovation in Three Navies: U.S. Navy, Royal Navy, Imperial Japanese Navy," *Naval War College Review*, Spring 1987, pp. 63-83.

74. Eugene E. Wilcox, *Slipstream, the Autobiography of an Air Craftsman* (New York: McGraw Hill, 1950), p. 148. See also Wilcox's Columbia University Oral History Research Office Naval History Project interview of 1962, "The Gift of Foresight," pp. 377-411.

75. Two renditions of this exercise are found in Charles M. Melhoru, *Two-Block Fox: The Rise of the Aircraft Carrier, 1911-1929* (Annapolis: Naval Institute Press, 1974), pp. 113-115 and Norman Polmar, *Aircraft Carriers* (Garden City: Doubleday, 1969), pp. 54-60.

76. The story is best told in Worral Reed Carter, *Beans, Bullets, and Black Oil: The Story of Fleet Logistics Afloat in the Pacific During World War II* (Washington: U.S. Govt. Print. Off., 1953). "Nick" Carter commanded Service Squadron Ten, the largest of the mobile squadrons, and the main "distributor" in the battle zones. It should not be assumed from this that shore bases were irrelevant. Quite the contrary. Shore support is always preferred if it is available. It was just that bases could be more distant than ever before from the actual naval action. As Admiral Spruance wrote in his introduction to Carter's book, shore bases in the south and southwest Pacific "continued to be close enough to the fighting front to remain practically their full usefulness." *Ibid.*, p. viii. For some later examples of this point, see Barry M. Blechman and Robert G. Weinland, "Why Coaling Stations are Necessary in the Nuclear Age," *International Security*, v. 2, no. 2, 1977, pp. 88-99.

77. Hearings before the Committee on Naval Affairs, U.S. Senate, 79th Congress, 2nd sess., on S. 2044, *Unification of the Armed Forces*, 1946, p. 142.

78. *Ibid.*, p. 79.

79. House of Representatives, 49th Congress, 1st session, Committee on Naval Affairs, Hearing on House Concurrent Resolution 80, *Composition of the Postwar Navy*, 1945, p. 1164.

80. Bradley S. Klein, "Hegemony and Strategic Culture: American Power Projection and Alliance Defence Politics," *Review of International Studies*, v. 14, no. 2, 1988, pp. 133-148, explicitly traces its roots to Mahan.

81. Arleigh Burke, "A Study of OP-23 and its Role in the Unification Debates of 1949," *Reminiscences of Admiral Arleigh B. Burke, USN (Ret.), Special Series on OP-23* (Annapolis: Oral History Office of the U.S. Naval Institute), v. III, 1981, p. 146, and v. IV, 1983, pp. 472-482. King's CominCh staff had been tiny, never more than 600 officers and men. Julius A. Furer, *Administration of the Navy Department in World War II* (Washington: Dept. of the Navy, 1959), p. 130.

82. Ernest J. King, *U.S. Navy at War, 1941-1945: Official Reports to the Secretary of the Navy* (Washington: Dept. of the Navy, 1946), pp. 169-170, and testimony in 1949, "The National Defense Program—Unification and Strategy," *Hearings before the Committee on Armed Services, House of Representatives*, 81st Congress, 1st session, 1949, p. 251.



"Helplessness induces hopelessness, and history attests that loss of hope, not loss of lives, is what decides the issue of war."

B. H. Liddell Hart: *Strategy*
New York, Praeger, 1967, p. 202



As a rule, a major operation of war across sea should not be attempted, unless naval superiority for an adequate period is probable. The reason is that already given, that the main movement of a war should be closely knit by steps linked one with another, which cannot be if the navy cannot command the sea.

Naval Strategy
A. T. Mahan (1911)
Little, Brown (1918), p. 218