

NAVAL WAR COLLEGE
Newport, R.I.

SMALL FLEET--BIG RISK

by
Carole J. Smith
LCDR, USN



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

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

Signature: Carole J. Smith

16 June 1995

Accession For	
NTIS	☒
CRA&I	☒
DTIC	☐
TAB	☐
Unannounced	☐
Justification	
By	
Distribution /	
Availability Codes	
Dist	Avail and / or Special
A-1	

19950417 125

DISTRIBUTION STATEMENT A
Approved for public release;
Distribution Unlimited

1. Report Security Classification: UNCLASSIFIED			
2. Security Classification Authority: N/A			
3. Declassification/Downgrading Schedule: N/A			
4. Distribution/Availability of Report: DISTRIBUTION STATEMENT A: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.			
5. Name of Performing Organization: Joint Military Operations Department			
6. Office Symbol: 1C		7. Address: Naval War College, 686 Cushing Rd., Newport, RI 02841-5010	
8. Title (Include Security Classification): SMALL FLEET--BIG RISK (U)			
9. Personal Authors: LCDR Carole J. Smith, USN			
10. Type of Report: Final		11. Date of Report: 16 JUNE 1995	
12. Page Count: 20			
13. Supplementary Notation: A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Joint Military Operations Department. The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.			
14. Ten key words that relate to your paper: Fleet in Being, Fortress Fleet, Risk Fleet, Diesel Submarines, Mahan, Corbett, Tirpitz, Small Navy			
15. Abstract: In any future conflict, the U.S. Navy will most likely enjoy a significant technological and numerical superiority over its adversary. A relatively small navy may, however, avoid decisive battle and influence events at sea indefinitely. Naval strategists have coined the terms <i>fleet in being</i> , <i>fortress fleet</i> , and <i>risk fleet</i> to describe strategies designed to use inferior forces to an advantage. Through an examination of these strategies as analyzed by both Alfred Thayer Mahan and Julian Corbett and study of historical examples of each, the relevance of these strategies to current naval thought can be determined. While <i>fortress fleet</i> and <i>risk fleet</i> have very limited value today, a diesel submarine <i>fleet in being</i> poses a significant threat that must be addressed in future U.S. naval strategy.			
16. Distribution / Availability of Abstract: Unlimite	Unclassified	Same As Rpt	DTIC Users
18. Abstract Security Classification: Unclassified			
19. Name of Responsible Individual: Chairman, Joint Military Operations Department			
20. Telephone: (401) 841-3414/4120		21. Office Symbol: 1C	

INTRODUCTION

In any future conflict, the United States Navy will most likely enjoy a significant technological and numerical superiority over its adversary. This advantage may translate into a relatively rapid neutralization of opposing naval forces resulting in freedom of maritime operations, but it is also possible that a relatively small naval force will avoid a decisive battle and influence events at sea indefinitely. Naval strategists have long been aware of the dangers posed by a small navy and have coined the terms *fleet in being*, *fortress fleet*, and *risk fleet* to describe strategies designed to use inferior forces to an advantage. Through an examination of these strategies as analyzed by both Alfred Thayer Mahan and Julian Corbett and study of historical examples of each, the relevance of these strategies to current naval thought can be determined. Technological advances have probably eliminated the *fortress fleet* threat. The potential political advantages of a *risk fleet* seem fairly limited. The aggressive employment of a diesel submarine *fleet in being*, however, poses a significant threat that must be addressed in future U.S. naval strategy. By avoiding decisive battle while disrupting sea lines of communication, delaying operations, and winning psychological victories, a diesel submarine *fleet in being* could seriously impact both the military and political outcome of a future conflict.

FLEET IN BEING - ORIGIN OF THE TERM AND EARLY THEORIES

Ironically, the man who coined the expression *fleet in being* was relieved of duty and taken to court-martial. Disgraced and labelled a coward by his allies, Admiral Lord Torrington of the Royal Navy was ultimately acquitted of all charges but was stripped of his commission as Vice Admiral of England and never served again. At the Battle of Beachy Head in 1690, Torrington's channel fleet accompanied by Dutch ships faced a numerically superior French fleet in the English Channel. After convening a full council of war comprised of both English and Dutch flag officers, Torrington, with the concurrence of the other flag officers, ordered his fleet back to a defensive position along the coast to await reinforcements.¹ He assumed the French would not risk an invasion of the English coast stating, "... whilst we had a fleet in being they would not make the attempt."² Years later, naval strategists Mahan and Corbett would commend Torrington for both preserving the fleet and discouraging the French, but unfortunately for Torrington, Queen Mary and his enemies in the court lacked his strategic vision.³

The term *fleet in being* took on several different meanings. The most widely accepted definition is a numerically inferior navy which, while maintaining a basically defensive posture, makes occasional offensive strikes designed to throw the superior fleet off balance. Mahan, the father of the grand decisive naval battle, argued that the value of a *fleet in being* was exaggerated

by his contemporaries. Ultimately a superior naval force would overcome an inferior enemy. But Mahan did recognize the potential value of a small yet efficient navy, as a "perpetual menace" when used to make unexpected strikes against a larger enemy. In this manner, a *fleet in being* could be used to cut sea lines of communication, delay and restrict enemy plans, and play games with the enemy's imagination.⁴

Mahan, taking the perspective of the superior fleet commander, discussed the inherent dangers of a *fleet in being*. The greatest danger to the superior force commander would be his inclination to hesitate or stop the offensive when faced by the *fleet in being* thereby losing the initiative and momentum. Contrary to the opinions of other strategists of the time, Mahan argued that a *fleet in being* did not have to be destroyed before taking offensive action but rather should be destroyed during the course of planned operations.⁵ Although Mahan believed Torrington had taken the correct action when faced by the French fleet, he did not credit the British *fleet in being* with preventing the invasion of England. The French lost the opportunity for victory when they did not aggressively pursue and destroy the retreating English and Dutch fleets.⁶

Julian Corbett further developed the *fleet in being* theory and spoke from the perspective of the inferior fleet commander. A small navy might never be able to gain command of the sea, but through an "active defense" might hold that command of the sea in dispute for extended periods of time. Corbett included

torpedoes, offensive mines, and submarines as means by which an inferior navy could prevent the enemy from meeting his objectives.⁷ A *fleet in being* should avoid decisive action but maintain mobility. Through harassing actions and limited strikes, the *fleet in being* could distract and delay the superior fleet. *Fleet in being* was an aggressive form of naval warfare designed to seriously threaten the enemy by targeting weaknesses in the enemy strategy.⁸ Admiral Richard Kempenfelt summarized the psychological effects of a *fleet in being*, "...to hover near the enemy, keep him at bay, and prevent his attempting anything but at risk and hazard; to command their attention, and oblige them to think of nothing but being on their guard against your attack."⁹

FLEET IN BEING - HISTORICAL EXAMPLES

Both Mahan and Corbett argued that in order to be effective a *fleet in being* had to be used aggressively against an enemy fleet. During the Russo-Japanese War, the Russians divided their Pacific fleet between Vladivostok and Port Arthur while they waited for reinforcements from the Baltic Fleet. When the small Vladivostok squadron occasionally made raids against the Japanese fleet, significant losses were inflicted upon the Japanese. But the raids were infrequent, and the strategy failed. If the tempo of the raids had been increased and if the Port Arthur ships had joined in the action, the Japanese amphibious operations may have been slowed down enough to gain time for the Baltic reinforcements to arrive in theater.¹⁰ The potential for

disrupting the enemy's strategy was demonstrated when the Japanese received an intelligence report that the Port Arthur Squadron was underway. They suspended all transportation of troops and supplies into the land theater for ten days.¹¹

Another example of *fleet in being* occurred in World War I. The naval standoff between the English and German fleets can be partially attributed to the *fleet in being* concept. The original war plan for the German fleet was classic *fleet in being* strategy. Realizing that it would be virtually impossible to reach numerical parity with the English, the Germans developed an efficient fleet which would pose a significant threat if engaged by the English. The Germans believed they could significantly impact English naval supremacy over time.¹² The war orders issued by the Commander-in-Chief of the High Seas Fleet echoed that strategy. German naval forces would damage the English fleet by offensive raids against forces blockading the German Bight, mines would be laid along the British coastline, and submarines would attack British shipping. After naval equity was achieved through these means, a decisive naval battle would be fought under conditions favorable to the Germans. "...it (High Seas Fleet) must therefore seek battle with the English Fleet only when a state of equality has been achieved by the methods of guerrilla warfare."¹³ Frustrated by the reluctance of the English to engage, High Seas Fleet Admiral Scheer stated that the Germans had never considered the possibility that the English Fleet would be held back from battle as a "*fleet in being*",

restricted to naval blockade operations thereby avoiding all risks.¹⁴ This usage of *fleet in being* to describe a superior naval force in a defensive posture was certainly not the British or Mahanian understanding of *fleet in being*. To the Germans' credit, they were able to hold the British fleet in suspended animation waiting for a decisive battle. The German hold on the British fleet was so intense that the United States had great difficulty convincing the British to withdraw surface ships away from the blockade to be used to protect convoys from U-boat attacks.¹⁵ Nevertheless, the Germans were frustrated in their attempts to strike piecemeal at the British fleet, and their *fleet in being*/guerrilla warfare strategy failed.

The Germans realized that the strategic defensive role forced on their fleet during World War I had rendered it ineffective. Prior to World War II, Grand Admiral Erich Raeder, Supreme Commander of the German Navy, was able to convince Hitler that sea power was absolutely necessary to the war effort, but the German fleet remained numerically inferior to allied naval forces throughout the war.¹⁶ The Germans did, however, possess a single battleship that when employed as a *fleet in being* effectively tied up valuable British and American assets, caused major modifications in the allied war plan, and won psychological victories against allied commanders. That battleship was the *Tirpitz*. Winston Churchill described the problem, "The whole strategy of the war turns at this period to this ship, which is holding four times the number of British capital ships paralyzed,

to say nothing of the two new American battleships retained in the Atlantic."¹⁷

The *Tirpitz* was ported in Norway and employed to make raids on allied convoys heading for Russia through a narrow strip of sea between the coast of Norway and the ice. The Royal Navy was forced to guard all these convoys with their battleships because the armor on their cruisers and destroyers could not stand up to the gun power of the *Tirpitz*. Upon any indication that the *Tirpitz* was underway, two British battleships would put to sea.¹⁸

The most striking example of the psychological effect of the *Tirpitz* against the allies was the disaster which befell an allied convoy of thirty five merchant ships code named P17. After receiving intelligence that the *Tirpitz* was underway and closing, the British convoy commander ordered his ships to scatter. All but eleven allied merchants were sunk by aircraft or U-boats. Meanwhile *Tirpitz* had been ordered to return to port and never participated in the action.¹⁹

Initially employed as an effective *fleet in being*, the *Tirpitz* never filled its potential in the war effort. Hitler continuously vetoed plans for *Tirpitz* deployments because of the risk posed by allied aircraft. If the German Naval High Command had been allowed to pursue more aggressive attacks on allied convoys, the British may have reconsidered the wisdom of resupplying the Eastern front at such great risk.²⁰ The ground war in Europe would have been prolonged, and the Russians may have sued for a separate peace.

FORTRESS FLEET - THEORY AND HISTORICAL EXAMPLE

A second strategy for the employment of a small naval force is the *fortress fleet*. This strategy was developed by the Russians who employed small fleets to defend ports and coastal batteries. The movement of the *fortress fleet* was restricted to the area of the port in defense of that position and was directly controlled by the fortress commander.²¹ Mahan dismissed this purely defensive occupation for any size fleet unless national survival depended on a key coastal fortress believing that all navies regardless of size should be used aggressively.²² Corbett agreed with Mahan that a fleet should not be used to protect a port. A fleet should retire to a base or coastal area only as a last resort and only as a temporary tactic. For Corbett, all time spent in coastal defense was time given to the enemy to pursue control of the sea. "For a maritime power, then, a naval defensive means nothing but keeping the fleet actively in being--not merely in existence, but in active and vigorous life."²³

During the Russo-Japanese War, the Russians employed a naval squadron at Port Arthur in a *fortress fleet* role. The Port Arthur squadron sat out the war in a purely defensive posture. These ships were never employed offensively, not even when they were needed for vital scouting missions. The Japanese fleet was able to conduct its amphibious operations simply by going around the Port Arthur squadron. The Russians had hoped that the mere presence of their fleet would discourage the Japanese, but that strategy failed miserably.²⁴

RISK FLEET - THEORY AND HISTORICAL EXAMPLE

The third theory for employment of a small navy was designed more as a political rather than military strategy. The *risk fleet* (riskflotte) theory was developed by Admiral Alfred von Tirpitz of the German Navy during the years leading up to World War I. In 1896, Tirpitz stated, "Even the greatest sea state of Europe would be more conciliatory towards us if we were able to throw two or three highly trained squadrons onto the political scale and correspondingly into the balance of conflict."²⁵ The *risk fleet* would give Germany leverage over English foreign policy. A small but strong fleet would cast Germany in a more favorable light as a potential ally to France or Russia. Although the German fleet was numerically inferior to the English, the Germans could inflict enough damage to the English fleet to render it vulnerable to a follow on attack by either the French or Russian fleet.²⁶

The changing political climate in Europe neutralized Tirpitz' grand scheme for the *risk fleet*. England formed alliances with both Russia and France. British naval forces stationed in the Far East and Mediterranean were recalled to home waters, and the British adopted a strategy of distant blockade against the Germans.²⁷ Any potential political leverage created by the German *risk fleet* was lost.

SMALL FLEET VS LARGE FLEET IN THE MODERN ERA

With the backdrop of the changing world order of the 1990's, the United States Navy will face a different type of threat in

the future. Professor Geoffrey Till of the U.S. Naval War College sums up the challenge.

Many have argued that sophisticated mines, naval missiles, fast patrol boats, quiet diesel coastal submarines and attack aircraft have significantly increased the risk for bluewater units operating in local waters. Domestic political sensitivity to the possible loss of life compounds the difficulty and may significantly reduce the capability gap between the strong and the weak, making it more difficult for the former to dominate the latter.²⁸

The theories of *fleet in being*, *fortress fleet*, and *risk fleet* were developed almost a century ago. The validity of these strategies in the present age of modern surveillance and weapon systems can be seriously questioned. Technological advances in radar systems, aircraft, satellite reconnaissance, and smart weapons have both aided and hurt small navies.

An inferior navy traditionally relied on stealth, maneuverability, and the safety of fortified harbors to engage a superior force and to remain *in being* for an extended period of time. A ship that eluded blockade and reached the open sea could literally hide for months. Before the invention of radar, the hunted and hunters would frequently pass within a few miles of each other without detection. Modern surveillance technologies have made it virtually impossible for surface ships to remain unlocated for long in the open ocean or during commerce raiding. Historically, an inferior navy could avoid battle by remaining in a fortified harbor until circumstances improved. The development of aircraft and smart standoff weapons increases the likelihood that a ship in harbor can be attacked and destroyed. While cruise missiles mounted on trucks and operated in a coastal

battery role could inhibit a superior naval force from operating close to shore, naval aviation assets would most likely eliminate a *fortress fleet* threat early in the conflict.

In some regards, technology has aided the smaller navy. The cruise missile provides smaller navies with the theoretical ability to disable a large combatant. Small navies, however, are limited by lack of effective surveillance, intelligence, and targeting systems. U.S. surveillance assets consisting of satellites, SIGINT, and aircraft coupled with a wide variety of standoff smart weapons would offset much of the threat posed by missile armed combatants.

The *risk fleet* concept may have limited relevance in today's world. Although the U.S. Navy would remain superior to any imagined alliance of smaller navies, a potential danger to U.S. strategy could be created by an alliance of countries located on different sides of the globe. If those forces agreed to engage U.S. forces simultaneously, the United States would be drawn into two major regional conflicts, a situation that would result in severe demands on sealift/airlift assets. While two simultaneous conflicts would certainly challenge the U.S. Navy, American technological and numerical superiority would diminish the value of any modern day *risk fleet*.

The *fleet in being* strategy may well be the most effective means of seriously challenging the U.S. Navy, and the diesel submarine is the naval platform which may afford a small navy the greatest potential to provide a serious *fleet in being* threat.

Diesel submarines, wisely employed, could dilute the U.S. technological and numerical advantage. Sonar technology, both active and passive, is challenged in the shallow water environment which is cluttered with both high surface noise and scattered sound propagation. Detecting snorkels and periscopes is still a difficult task for today's radars. Anti-submarine warfare (ASW) engagements are extremely difficult, and the experience of the Royal Navy against one Argentine submarine confirms the diesel submarine to be an elusive target.

A small navy could employ its diesel submarine force in a variety of ways. Clearly incapable of engaging the United States in a decisive battle, a small navy might adopt more subtle objectives. The decisive nature of their actions would not be in terms of ships sunk but rather in terms of how they might affect the overall policy of the United States. A diesel submarine *fleet in being* could be operated to achieve three objectives; to cause delay, to tie up assets, or to achieve psychological and political advantages through a guerilla war at sea.

By avoiding action against the main body and using submarines aggressively but not foolishly, a small navy could cause delay in several areas. The arrival of sealift assets bringing reinforcements to the theater could be delayed. Forced to order convoys rather than individual sailings, sealift commanders would experience delays waiting for sealift units to mass, delays waiting for escorts, and delays at the destination port where port facilities and transportation systems are better

suites to individual ship arrivals. Enemy forces could capitalize on the delays and make significant gains in the land theater. Carrier strikes could be delayed or reduced if carrier based S-3's were forced to conduct ASW patrols rather than tanker missions. If the carrier was forced to operate further offshore because of a submarine threat, numbers of sorties, on-station time, and targets hit could be reduced. Diesel submarines conducting aggressive mine laying operations could delay amphibious operations until the waters were cleared. Delay could be decisive if the primary battle was being fought on land, or if it raised the likelihood of a political settlement.

A diesel submarine *fleet in being* could also be employed to tie up assets and prevent them from being used for more profitable missions. Tying up assets would become critical if a second major regional conflict was in progress or imminent. Within the theater, every ship involved in escorting convoys would be a ship not available for blockade, tomahawk launch, theater ballistic missile defense, shore bombardment, or protection of the Marine Amphibious Readiness Group (MARG) or the Carrier Battle Group (CVBG). Forced to escort and defend a variety of assets, the U.S. Navy might spread and weaken its ASW screens to the point that screen penetration by submarines would become possible. For example, if forces were spread between a CVBG, MARG, and convoys, a submarine force could be massed against one of these escorted bodies giving the enemy a temporary local advantage--a goal that eluded Tirpitz and Scheer in World

War I. Operating aggressively on the fringes of the theater, submarines could force the United States to devote assets to defensive missions that are only productive if the defended unit is actually threatened.

By fighting a guerilla war at sea, the diesel submarine *fleet in being* could win significant psychological and political victories. Any loss of American life and shipping to a submarine would impact U.S. military commanders, civilian leadership, and the general public. Loss or heavy damage to a carrier or amphibious vessel could cause a loss of will on the home front and generate a climate of excessive caution in which military commanders forfeit both initiative and momentum.

A review of history indicates that many attempts at employing a *fleet in being* have been unsuccessful. Success of a diesel submarine fleet would depend on both operational training and material readiness. But most important, success would depend on achieving an appropriate level of aggressiveness. Too aggressive, and the fleet would seek battle on unfavorable terms and no longer remain *in being*. Not aggressive enough, and the fleet would be discounted as a threat. By undertaking a quick sortie from port and remaining hidden in coastal waters, the submarine fleet could at least create the perception of readiness. By demonstrating this level of operational competence, every submarine that remained hidden would have to be assumed mission capable even if it was not. Prepositioning prior to the outbreak of hostilities would render the submarines more

difficult to locate. An aggressive campaign of mining in international straits and isolated attacks on neutral shipping could force a negotiated settlement.

Speaking from a purely military perspective, Mahan stated that the superior navy would ultimately prevail over a numerically inferior *fleet in being*. Naval campaigns are rarely fought in isolation, however, and delays of equipment and troops to a land campaign and even relatively minor engagements could unbalance the domestic or international equation. To counter the *fleet in being*, Mahan recommended it be destroyed during the course of planned operations. That strategy requires a significant assumption of risk and a potential for high casualties that the United States may not be willing to accept. For these reasons, the *fleet in being* strategy which was only marginally effective in World War I and II may prove especially well suited to smaller conflicts where the United States may not be willing to win at any cost.

NOTES

1. John Ehrman, The Navy in the War of William III 1689-1697 (Cambridge: Cambridge University Press, 1953), pp. 350-366.
2. The Earl of Torrington, speech to the House of Commons November 1690, quoted in Ehrman, p. 350.
3. Ehrman, pp. 350-366.
4. Alan Westcott, ed., Mahan on Naval Warfare (Boston: Little, Brown and Company, 1944), pp. 242-244.
5. Alfred T. Mahan, Naval Strategy (Boston: Little, Brown and Company, 1911), pp. 399-401.
6. Ibid., pp. 267-268.
7. Julian S. Corbett, Some Principles of Maritime Strategy (London: Longmans, Green and Company, 1911), p. 167.
8. Ibid., p. 213.
9. Admiral Richard Kempenfelt, quoted in Corbett, pp. 223-224.
10. Alfred T. Mahan, Naval Administration and Warfare: Some General Principles (Boston: Little, Brown and Company, 1908), pp. 151-153.
11. Mahan, Naval Strategy, p. 401.
12. Admiral Reinhard Scheer, Germany's High Sea Fleet in the World War (London: Cassell and Company, Ltd., 1920), p. xiv.
13. Ibid., p. 25.
14. Ibid., p. 11.
15. George Quester, Mahan and American Naval Thought Since 1914 (College Park: University of Maryland, 1990), pp. 15-16.
16. Holger Herwig, The Influence of A. T. Mahan Upon German Sea Power (Calgary: University of Calgary, 1990), pp. 8-9.
17. Winston Churchill, quoted in Thomas Gallagher, The X-Craft Raid (New York: Harcourt Brace Jovanovich, Inc., 1971), p. 11.
18. Gallagher, pp. 9-12.

19. Ludovic Kennedy, Menace (London: Sidwick & Jackson, 1979), pp. 78-89.

20. Ibid.

21. Mahan, Naval Administration and Warfare: Some General Principles, pp. 155-156.

22. Mahan, Naval Strategy, p. 385.

23. Corbett, p. 214.

24. Mahan, Naval Strategy, pp. 391-397.

25. Admiral Alfred von Tirpitz, quoted in Patrick Kelly, The Naval Policy of Imperial Germany 1900-1914 (Washington: Georgetown University, 1971), p. 43.

26. Kelly, pp. 59-62.

27. Ibid.

28. Geoffrey Till, "Corbett and the 1990's," Operations Department Reading, U.S. Naval War College, Newport, RI: 1994.

SELECTED BIBLIOGRAPHY

- Brown, David. Tirpitz the Floating Fortress. Annapolis: United States Naval Institute Press, 1977. (D772.T5 B75 1977)
- Corbett, Julian S. Some Principles of Maritime Strategy. London: Longmans, Green and Company, 1911. (V163.C7)
- Douglas, Martin. "Submarines for the Third World." Naval Forces, June 1993, pp. 20-22.
- Ehrman, John. The Navy in the War of William III 1689-1697. Cambridge: Cambridge University Press, 1953. (D279.E4)
- Feldman, Shai, ed. Technology and Strategy. Boulder: Westview Press, 1990. (V163.T43 1990)
- Frere-Cook, Gervis. The Attacks on the Tirpitz. Annapolis: United States Naval Institute Press, 1973. (D772 T5 F7)
- Gallagher, Thomas. The X-Craft Raid. New York: Harcourt Brace Jovanovich, Inc., 1971. (D772 T5 G33)
- Herwig, Holger H. The Influence of A.T. Mahan Upon German Sea Power. Calgary: University of Calgary, 1990. (E182.M33 H4 1990)
- _____. "Luxury" Fleet: The Imperial German Navy 1888-1918. London: George Allen & Unwin, 1980. (DD106.H47)
- Hughes, Wayne P., Jr. Mahan, Tactics and Principles of Strategy. U.S. Naval War College: Mahan Centennial Conference, 1990. (E182.M33 H8 1990)
- Kelly, Patrick James. The Naval Policy of Imperial Germany 1900-1914. Washington: Georgetown University, 1971. (DD106 K4)
- Kennedy, Ludovic. Menace. London: Sidwick & Jackson, 1979. (D772.T5 K46)
- Mahan, Alfred Thayer. The Influence of Sea Power upon History. New York: Hill and Wang, 1890.
- _____. Naval Administration and Warfare: Some General Principles. Boston: Little, Brown and Company, 1908.
- _____. Naval Strategy. Boston: Little, Brown and Company, 1911. (V163.M2)
- Miller, David. "The Silent Menace - Diesel Electric Submarines in 1993." International Defense Review, August 1993, pp. 613-617.

- _____. "Submarines in the Gulf." Military Technology, June 1993, pp. 42-45.
- Padfield, Peter. The Great Naval Race. New York: David McKay Company, Inc., 1974.
- Peillord, Leonce. Sink the Tirpitz!. New York: G.P. Putman's Sons, 1968. (D772.T5 P413 1968)
- Peppe, P. Kevin. "Submarines in the Littorals." U.S. Naval Institute Proceedings, July 1993, pp. 46-48.
- Quester, George H. Mahan and American Naval Thought Since 1914. College Park: University of Maryland, 1990. (E182.M33 Q4 1990)
- Rahn, Werner. 140 Years of German Navies: Their Defeat and Re-birth - From Confrontation to Co-operation. U.S. Naval War College: Mahan Centennial Conference, 1990. (E182.M33 R3 1990)
- Reynolds, Clark. "The U.S. Fleet-in-Being Strategy of 1942." The Journal of Military History, January 1994, pp. 103-118.
- Rosenlof, Eric. "Contingency Blues." U.S. Naval Institute Proceedings, January 1995, pp. 53-57.
- Scheer, Reinhard. Germany's High Sea Fleet in the World War. London: Cassell and Company, Ltd., 1920. (D581.S3)
- Till, Geoffrey. "Corbett and the 1990's." Operations Department Reading, U.S. Naval War College, Newport, RI: 1994.
- Westcott, Allan, ed. Mahan on Naval Warfare. Boston: Little, Brown and Company, 1944. (V17.M24)
- Woodward, David. The Tirpitz and the Battle for the North Atlantic. New York: W. W. Norton & Company, Inc., 1953. (D772.T5 W6)
- Wylie, J. C. Mahan: Then and Now. U. S. Naval War College: Mahan Centennial Conference, 1990. (E182.M33 W9 1990)