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The Atlantic war : the United States' role in the battle against Hitler's U-boats

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**THE ATLANTIC WAR:
THE UNITED STATES' ROLE IN THE BATTLE AGAINST HITLER'S
U-BOATS**

A Thesis

Presented to

The Faculty of the Department of History

San Jose State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

Michael Scott Posey

December 1998

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ABSTRACT

THE ATLANTIC WAR: THE UNITED STATES' ROLE IN THE BATTLE AGAINST HITLER'S U-BOATS

By Michael Scott Posey

This thesis describes the critical role played in the Battle of the Atlantic by the United States and its navy, and their contributions to final victory over Hitler's U-boats. It discusses the importance of the Atlantic as a theater of the war, and the vital nature of the allies' sea-lines-of-communication. Also described, is the assistance by neutral America through various actions and policies to Great Britain during Britain's lone struggle from 1939-1941.

Although this research does not detail individual battle reports, it does unveil the near disaster for the United States upon entering the war. It further discusses the approaches taken by the Navy to solve the U-boat crisis off its own shores and across the Atlantic. The United States' countermeasures, technology, strategies, organization, and production efforts in the fight are discussed to better understand America's role in achieving victory in the Atlantic over Nazi Germany's U-boats.

“The beginning of the end of war lies in remembrance.”

War and Remembrance

Herman Wouk

To the remembrance of the sailors, merchantmen, and other souls that sacrificed so much during the Battle of the Atlantic, I humbly dedicate this work.

Acknowledgments

Since I was very young, I have always found World War II fascinating. Most of that early fascination came from the Saturday afternoon re-runs of the movies that Hollywood had produced in the decades following the war. Also, my older uncles and many of my neighbors had been in the war. One uncle had been a navy landing-craft driver in the Pacific, while another was among those who landed at Normandy, then pressed on through the summer campaign into France until he was wounded. One neighbor was with a Canadian unit stationed in Hong Kong when it capitulated in December of 1941, placing him in an horrific Japanese prisoner-of-war camp for the duration of the conflict. Another neighbor had been one of Mussolini's Black Shirts as a young boy before his family left Italy. My grandmother told me stories of the Great Depression and the war years that followed, complete with references to FDR's fireside chats, war rationing, and how my grandfather had been interned as an "enemy alien" for breaking curfew while running his restaurant on Fisherman's Wharf in Monterey, California.

Where the Hollywood depictions often captured my imagination by romanticizing the struggles in World War II, the stories of my family and neighbors gave the element of just how painful these struggles during the war really were. Either way, I was hooked. The study of World War II has been a

fascination, a hobby, an academic pursuit, and now a part of my profession as a high school history teacher. Therefore, to some degree, each of these influences, all of which I am grateful for, has brought me to this point.

However, this does not make up the sum of my gratitude. My thanks must center on the following people. Thank you to my father and mother, Jack and Grace Posey, for all the love, tolerance, encouragement, and moral support two parents could give. Also, heartfelt thanks to my grandmother Mary Bomarito, who loved to tell stories of times past, and who instilled that love in me. My mother-in-law and father-in-law, Karen and Fred Shirey, deserve many thanks for all their support and encouragement. Many thanks to my professor and advisor, Dr. Harry Gailey, for taking me as one of his graduate students which has been an honor. Also a special thank you Dwight Messimer and Dr. Bruce Reynolds of San Jose State University's History Department for providing their guidance and being readers for my thesis. Thank you to my friend Debi Bodenheimer for assisting me with proofreading -- her critical eye was very helpful and much appreciated. Most of all, however, thank you to my wife Valerie, who endured the long hours, late nights, many proofreadings, and me while writing this work. She has been a compass for me while navigating to the destination of a work completed. She has my loving admiration and thanks.

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Chapter I

The Atlantic Lifeline

Shortly after dawn on December 7, 1941, the United States Pacific Fleet based at Pearl Harbor was attacked and crippled by aircraft of the Imperial Japanese Navy. The smoking carnage that littered the harbor would, in an instant, transform the isolationist sentiment of the American people into a national furor to finish a war that others had started. The impact of America's entry into World War II would be dramatic and decisive. The United States, and the vast resources the country could bring to bear, were immediately committed to total victory over the Axis powers. In the Atlantic particularly, the United States Navy's role was to have a profound effect on the reclamation of the European continent from the grasp of Hitler's Third Reich.

The U.S. Navy assumed a major role in protecting Britain's sea lines of communication even before America entered the conflict in December 1941. Once officially in the war, the Navy shepherded the vital supplies needed for the Allied war effort along this lifeline into England. Throughout the Battle of the Atlantic, the U.S. Navy and its Allies confronted one of the most lethal

opponents in the history of modern naval warfare: the U-boat arm of the German Navy. The role of the U.S. Navy in fighting Hitler's undersea forces merits close examination, for it is a tribute to the Herculean efforts of the U.S. Navy and America's capacity to overcome adversity in a crisis. Before addressing the Navy's role in the Atlantic campaign we will look at the situation before America entered the war and in the early part of the war.

By the time America entered into the conflagration in December 1941, World War II had been in progress for just over two years and covered the globe. The Japanese Army had already secured most of China's port cities as well as territory in China's northern provinces. The Vichy French, in Indo-China, had allowed the Japanese to move into that French colony, leaving Japan's forces poised to menace the Southwestern Pacific from that staging area. In Europe, Hitler's *Wehrmacht* and *Luftwaffe* had "*blitzed*" through the countries of Poland, Norway, Denmark, The Netherlands, Belgium, Luxembourg, and finally France to occupy most of the continent. After the fall of France, massive air battles for supremacy of the skies over Britain were fought between England's dogged Royal Air Force and Hitler's *Luftwaffe*. In the East, the Soviet Union was struggling to survive the Nazi onslaught that had pushed to within view of a snow-covered Moscow. Under the sweltering heat of the desert sun, the British were engaged in a seesaw campaign

against the Axis in the North African desert. While these struggles were being waged on every front, in the icy waters of the Atlantic perhaps one of the most desperate struggles of the war was being fought.

The Battle of the Atlantic, as this struggle has come to be known, was not a single battle fought in a day, a week, a month, or a year. Rather, the Battle of the Atlantic was a continuing fight that lasted from Britain's declaration of war on Germany in September 1939, until the Germans lost the battle in May 1943. It was a battle that tested the mettle of both the Allied and the Axis powers. It was a fight that saw both sides race against time and against the weight of numbers. It was a contest between the hunter and the hunted, whose roles could reverse at any given time. Most importantly, it was a campaign that both the Anglo-American Allies and the Germans needed to win in order to secure a final victory in Europe for their respective sides.

A final Allied victory in Europe would depend upon the successful maintenance of the trans-Atlantic sea lines of communication from the United States into Great Britain. This lifeline supplied Britain with crude oil and aviation fuel, food stuffs and basic material needs, weapons and ammunition, and an array of other resources from the United States and Britain's global empire. Without these desperately needed imports, Britain could not hope to survive. The business of the German navy, conversely, was

to sever Britain's lifeline and deny the sea to its mortal enemy. Achieving this objective would give Germany a strangle-hold on Britain that would, Hitler hoped, pressure Britain into a negotiated peace.¹ Thus, the new German empire would control the European continent and, by extension, Great Britain as well.

Two obstacles stood in the path of German success during the Battle of the Atlantic, however. The first was Hitler himself. Hitler lacked an understanding of the critical role that an aggressive and well equipped maritime force and strategy would play in securing the continent he had taken. Hitler was a politician with a military orientation toward land and air forces. This *landsinnig*, or land-mindedness², was evident since most of his advisors were from those service branches with only one from the navy, Grossadmiral Erich Raeder.³ As a result, Hitler never came to realize his oversight in the Atlantic or in his maritime strategy as a whole. Consequently, the initiative of his U-boat's early successes was eventually lost, never to be regained. The second and insurmountable obstacle to Germany's success in the Atlantic was the entry of the United States into the

¹ Samuel Eliot Morison, *History of United States Naval Operations in World War II: The Battle of the Atlantic, September 1939-May 1943*, Volume I (Boston: Little, Brown and Company, 1947), p. 5.

² Samuel Eliot Morison, *History of United States Naval Operations in World War II: The Atlantic Battle Won, May 1943-May 1945*, Volume X (Boston: Little, Brown and Company, 1956), p. 55.

³ Morison, *History of U.S. Naval Operations in World War II*, Vol. I, p. 7.

war. The United States would buttress Britain's lone stand and lend nearly unlimited resources and logistical support to the Allied goal of European liberation. However, in spite of the two aforementioned obstacles, Germany came dangerously close to achieving the objective of severing Britain's lifelines. In the two years preceding America's entry, the Royal Navy was woefully short of the escort vessels and the proper equipment necessary to maintain the Atlantic trade routes against its undersea enemy. Although victory was to belong to the Allies in the end, in the early years victory was not evident.

Between 1939 and 1941 the British escort fleet had dwindled to the point that it could barely manage to protect the vital convoys carrying desperately needed cargoes for Britain's survival. Even with new additions to its fleet and supplemental Royal Canadian Navy escorts, Britain could not reverse the growing number of merchant and escort ships lost to Germany's U-boats. America's aid before the war, and finally America's entry into the war, were necessary and timely. Both came at the moment when the British Navy needed massive infusions of men and material to stem the tide of Germany's successes. Although American assistance was not immediate or large at first, it was at a time when Britain needed it desperately. American assistance arrived also at a time when the U-boat force was growing and beginning to

employ a variety of new tactics under the leadership of Admiral Karl Dönitz. Consequently, the sea lines of communication in the Atlantic seemed, for the British, seriously threatened before America's entry. When America entered into the war unprepared for antisubmarine warfare, in 1942 Allied shipping losses soared far above the records set by earlier Nazi successes (see Table #1 on page 7).

Karl Dönitz was a key figure in the successes enjoyed by the U-boats. Commander of the U-boat arm, he sculpted his force into a finely honed weapon. His development of the doctrine and tactics that governed the use of U-boats revolutionized naval warfare. Dönitz's experience in U-boat warfare went back to World War I when he served as a U-boat commander in the Mediterranean. After his boat was sunk by the Allies, he spent the remaining part of the war in a prisoner-of-war camp. Dönitz used this time to rethink the use of the U-boat in the arena of naval warfare. He recognized that a change in doctrine was necessary if the U-boat was to meet its full potential.⁴

In the years between World War I and World War II, Dönitz continued to revisit the potential of the U-boat as he moved from command to command. When the German Navy began to rebuild, and included U-boats in those rebuilding programs, Dönitz soon took charge of that arm of the German

⁴ Karl Dönitz, *Memoirs: Ten Years and Twenty Days* (Annapolis: Naval Institute Press, 1990), p. 5.

Table #1
ALLIED MERCHANT SHIP LOSSES BY U-BOAT ATTACK⁵
January 1942 - July 1942

Navy. He began to train and build his new U-boat force to include several new principles. There were three general principles that Dönitz emphasized in his training: concentration of forces in wolf packs, force mobility to take advantage of target opportunities, and centralized for coordinated attacks.⁶

⁵ Clay Blair, Jr., *Hitler's U-boat War: The Hunters 1939-1942* (New York: Random House, 1996), p. 771.

⁶ Dönitz, *Memoirs*, pp. 18-24.

It's important to note that the naval building program was not the highest of priorities in Germany's rearmament during the 1930s. Hitler, always land-minded, emphasized the rebuilding of the German Army and Air Force as his highest priorities, with attention to the Navy last. Germany's naval building program was projected to build a force in all ship categories to rival the strength of the British Navy. That goal was projected to be attained by the mid-1940s. As a result, when the war began in 1939, Dönitz had only a fraction of the force he required to challenge Britain's lifeline and naval supremacy. Nevertheless, Dönitz's U-boats were able to produce significant results with the relatively small force at his disposal.

The U-Boat War Begins

Before the first tanks and aircraft of Hitler's *Blitzkrieg* thundered across the Polish border in September of 1939, the German Naval High Command had taken the precaution to sortie thirty-nine of its fifty-seven U-boats.⁷ Although Hitler had assured his military and naval staffs that Germany's *blitz* into Poland would not cause Britain to declare war, the sortie was conducted as a contingency against that possibility. Thus, with this handful of U-boats, Admiral Dönitz had poised his force to begin his U-boat campaign against Allied shipping in the North Atlantic.

⁷ Clark C. Reynolds, *Command of the Sea* (New York: William Marrow & Co., Inc., 1974), p. 497.

Dönitz's campaign was impeded, however, by the international limitations placed on the use of submarines during wartime. In the early days of the war Hitler was still hopeful that a settlement could be reached with Britain that would prevent Germany and Great Britain from becoming involved in hostilities. Therefore he ordered the German Naval High Command strictly to observe the regulations pertaining to Article 22 of the 1922 Washington Naval Arms Limitation Treaty, sections one and two.⁸

The passages of the Washington Naval Treaty stipulated what conduct was to be observed by submarines during wartime. The edicts of international law virtually rendered the submarine useless as an effective weapon of naval warfare. The following passage reveals the letter and spirit of these regulations:

(1) In their action with regard to merchant ships, submarines must conform to the rules of International Law to which other surface vessels are subject.

(2) In particular, except in the case of persistent refusal to stop on being duly summoned, or of active resistance to visit or search, a warship, whether surface vessel or submarine, may not sink or render incapable of navigation a merchant vessel without having first placed passengers, crew and ship's papers in a place of safety. For this purpose the ship's boats are not regarded as a place of safety unless the safety of the passengers and crew is assured, in the existing sea and weather conditions, by proximity

⁸ Dönitz, *Memoirs*, pp. 55-60.

of land or another vessel which is in a position to take them aboard.⁹

However, in the London Submarine Agreement of 1936, the previous statutes were amended to include provisions of the Prize Ordinance. Admiral Dönitz pointed out these amendments in his memoirs as the following stipulations:

Under the Prize Ordinance the U-boat was exempt from these [Article 22] obligations of prior examination in the case of:

- (1) Merchantmen proceeding under escort of enemy warships or aircraft. 'Anyone who accepts armed assistance from one side must also accept the use of arms by the enemy.'
- (2) Merchant vessels which take part in any engagement or which resist when called upon to submit to inspection.
- (3) Transports which are deemed to be on active service, to belong to the armed forces, and are therefore to be regarded as warships.¹⁰

The above amendments allowed some flexibility to an otherwise disarming regulation, but wartime operations under the above restrictions were still a great impediment to a war of attrition on merchant shipping. However, they were at first observed in so far as human fallibility allowed.

⁹ Clay Blair, Jr., *Silent Victory: The U.S. Submarine War Against Japan* (New York: J. B. Lippincott Company, 1975), p. 60.

¹⁰ Dönitz, *Memoirs*, p. 54.

Human fallibility became apparent on September 4, 1939 when the German U-boat, *U-30*, torpedoed the British passenger liner *Athenia* by mistake. Although the *Athenia* was behaving as a combatant, the sinking was taken as an affront to common decency and International Law by the British.¹¹ Therefore, England declared that a state of unrestricted naval warfare would henceforth be conducted against Germany.¹² In spite of the fact that Britain had removed all restrictions on naval warfare shortly after the *Athenia* incident, Germany maintained its adherence to the Prize Ordinance Rules for several months into 1940.¹³

As noted, these conditions were not optimum for conducting a submarine campaign against an enemy. This is especially true when Germany's success in its war effort depended heavily upon its ability to interdict the flow of supplies and war materials of its enemy. This early stage of the war provided the greatest opportunities to inflict heavy losses on the British. In the early months of the war, Allied shipping was not well organized and Britain's countermeasures proved to be less reliable than had been predicted before the beginning of hostilities. However, in the period

¹¹ The *Athenia's* actions were confused for that of a combatant vessel because she was on a zigzagging course and running without lights. This is standard operations for combatant vessels in wartime. Dönitz, *Memoirs*, p. 57.

¹² Reynolds, *Command of the Sea*, pp. 497-8.

¹³ Dönitz, *Memoirs*, pp. 5.

between the war's start and the move to unrestricted submarine warfare by Germany in February of 1940, the U-boats sank a significant total of 199 ships.¹⁴

Dönitz was under no illusion with regard to Germany's prospect for success in this new war. He knew that the war would most likely be a long one involving a great deal of sacrifice. Furthermore, he believed his submarines would be instrumental in delivering decisive blows to Britain's capacity to wage war against the Third Reich. The day after Britain's declaration of war on Germany, September 3, 1939, Dönitz made his views known to his officers at his headquarters in Wilhelmshaven. This excerpt from his memoirs recounts a portion of that meeting.

On September 4 came the first British air attack on Wilhelmshaven locks . . . When it was all over, I called them [his officers] together and gave them my view on the war that lay before us. 'This war . . . must be taken very seriously. Make no mistake about it -- it may well last for seven years, and we shall probably be only too happy to see it end in a peace by negotiation.'¹⁵

Thus, the task for the German Navy's U-boat arm was clear. Although the U-boat became a feared and lethal weapon, it was limited by the state of technology of the time. The technical dilemma of the U-boat was its relative

¹⁴ Ibid., p. 54.

¹⁵ Ibid., p. 51.

mobility when compared to the speed of surface vessels. A submarine could crawl beneath the surface at a mere six to eight knots for about two hours before exhausting the power stored in its batteries. When submerged, the submarine relied entirely upon the stored battery power for all of the vessel's systems including propulsion. The greatest draw on this power supply came from the use of its electric propulsion motor. Operating at reduced speed while submerged would extend the life of the batteries' stored power supply. A surface vessel could cruise at an average speed of ten to fifteen knots. This was not an insurmountable problem for the U-boats when attacking a single ship or small group of ships. However, when faced with a large convoy, the U-boat would, at best, have one or two opportunities to attack before the entire convoy slipped away. Thus new U-boat tactics were developed by Dönitz to counter Allied convoy tactics.

The British Admiralty also did not suffer from any illusions with regard to the U-boat threat. Britain had felt the sting of Germany's U-boats in the previous war, and the Admiralty knew that if this critical front were lost, Britain could lose the war. This is evident in Winston Churchill's multi-volume history of the Second World War, wherein he wrote;

The only thing that ever really frightened me during the war was the U-boat peril . . . now our lifeline, even across the broad oceans and especially in the entrances to the island, was

in danger . . . The Admiralty, with whom I live in the closest amity and contact, shared these fears.¹⁶

Churchill's words were truly a telling statement when one considers that Britain faced many dark moments during its lone stand in the early war years. Thus, the Admiralty was quick to act in beginning to convoy ships. The concentration of British merchantmen in convoys, a centuries old tactic against enemy raiders, reduced the number of encounters with U-boats significantly. Also, the convoy system allowed a greater number of anti-submarine escort vessels to concentrate for better protection of the ships in the convoy. Since there were limited numbers of escort vessels, coverage for these non-combatants was easier to maintain with the few assets available.

The employment of U-boats in war was an exercise for which Admiral Dönitz had been studying and training for some time. One method of overcoming the convoy system had been in the planning stages and seemed quite plausible. This tactic was called "wolf packing." It required that a concentration of U-boats be brought to bear against an Allied convoy when it was located. The U-boats would then coordinate their attacks with instructions from the shoreside operations center at Dönitz's headquarters. Once the U-boats were vectored into the projected path of a convoy, or to a

¹⁶ Winston S. Churchill, *The Second World War: Their Finest Hour*, Volume II (Cambridge: Houghton Mifflin Company, 1948), p. 598.

known assembly point of a convoy, they would then attack in concert to achieve the maximum possible damage. This would also reduce the relative strength of the Allied escort vessels since they would have to disperse to cope with a large number of attacking U-boats at the same time. The optimum conditions for “wolfpacks” existed while operating on the surface at night. The U-boat’s small silhouette made them practically invisible to the convoy and its escorts. While on the surface the U-boat could use its higher surface speed to gain favorable firing positions and to maneuver out of harm’s way when challenged by the shepherding convoy escorts.

Dönitz’s key problem at the beginning of the war, however, was that he had an insufficient number of boats for this plan to work effectively. This was made worse by the fact that he was ordered to allocate his boats to other operations. In order for his U-boat campaign to be effective, Dönitz believed that all available boats should be rotated to sea with the solitary goal of sinking as many Allied merchant ships as possible. Anything that detracted from this mission was considered by Dönitz to be wasted energy.

Unfortunately for Dönitz’s strategy, this is precisely what occurred time and again. When the threat of a British invasion in Norway developed in 1940, Hitler directed Naval High Command to divert all available U-boats to defend that coastline. After Norway was secured, some of these boats were

sent to the Mediterranean Sea on Hitler's orders to interdict Allied shipping in that theater.

While the move to send U-boats to the Mediterranean may have seemed important in supporting the German and Italian positions in the Mediterranean and North Africa, it was also an extremely costly endeavor. Navigating the Strait of Gibraltar was a very difficult proposition. To begin, the Strait is narrow and shallow and was heavily patrolled by British anti-submarine warfare vessels and aircraft out of Gibraltar. Also, surface search radar scanned the area for enemy targets. It is not surprising that the attrition rate for U-boats at this crossing was approximately thirty-three percent.¹⁷ With so few available submarines, these kind of losses were too high. The continued shifting of Dönitz's U-boats from what he considered their real objective was a source of constant frustration.

These set-backs were further exacerbated by production delays for the new U-boats. Also, critical labor and material shortages impeded the refit and repair of boats already in operation. This problem was partially due to the priority given to the repair of the German Navy's capital ships. These more glamorous and prestigious ships absorbed precious dockyard time needed by the U-boats.

¹⁷ Dönitz, *Memoirs*, p. 161.

In spite of those set-backs, Dönitz's U-boats did exceedingly well from September 1939 to December 1941. Since the German army had secured both Norway and France, bases in these captive countries permitted Dönitz's U-boats a much greater radius of operation into the Allied shipping lanes. Although a fraction of the projected required force, the first wolf packs proved to be a formidable weapon against the Allied convoy system. Their operations were tightly directed from a new headquarters in Paris by a commander singularly devoted to his men and to the success of a strategy that was continually compromised by interference from the political leadership through the Naval High Command.

With Britain feeling the pressure of Germany's early successes in the Atlantic campaign, there was a desperate search for new methods, men, and matériel with which to stem the ever increasing U-boat threat. The British focused political efforts for assistance on its "cousins" in America. Even with everything at stake for the British, however, the majority of Americans were resolved to remain detached from the fight in Europe. Although American public opinion remained adamant on this point, a sympathetic President Franklin D. Roosevelt would work carefully to loosen the bindings of America's neutrality.

Roosevelt, well versed in military and especially naval affairs, understood that the fall of Britain and its empire would have grave national security consequences for the United States. Even if the American public chose to view the war through the wrong end of the telescope, Roosevelt was determined to assist the British in all ways possible, short of war, until he could turn around the telescope through which America gazed. Paramount to Britain's survival, then, would be maintaining the flow of supplies to the island nation. To achieve this, Britain needed to increase the number of escorts, and Roosevelt was prepared to provide them. The lifeline to which Britain so desperately clung was in grave danger of being cut. The fiber of those lines was strained to the breaking point until Britain was cast another line from America.

Chapter II

A New Lease on Life

Casting the lifeline to Britain would not be an easy task for President Roosevelt. Although sympathetic to the British struggle against Nazi aggression, the American people at large were firmly entrenched in an isolationist sentiment. This sentiment was reinforced by a decade of devastating economic conditions resulting from the Great Depression in which national security was defined by America's immediate domestic needs. These sentiments notwithstanding, Roosevelt carefully laid the groundwork for American assistance to Great Britain through a variety of policies and actions. These policies would involve the United States in the Atlantic campaign against Hitler's undersea menace in all ways Roosevelt felt possible, short of actual war with the Axis powers, and in ways he could justify to an isolationist American population.

America's assistance to Britain was vital from the onset of the war in Europe and was manifested in several forms. One form of American assistance was the establishment of "Neutrality Patrols" for western hemispheric defense. Another form of assistance was the American trade of

obsolete American destroyers for British bases in the Western Hemisphere. America also established a policy of lending or leasing American-manufactured war materials to Britain. Finally, America engaged in secret, joint military conferences with British diplomatic and military officials to develop a trans-Atlantic strategic partnership and a plan to defeat Nazi Germany. This commitment of material, moral, and logistical support from the United States would not only ensure Britain's survival but would also prepare American military and industry planner for wartime production.

Establishing and Enforcing "Neutrality Patrols"

At the beginning of hostilities in Europe, President Roosevelt directed that naval patrols be formed to ensure the security of the western hemispheric maritime trade routes and America's Atlantic coastal zones. So directed on September 5, 1939, the U.S. Navy formed the requisite forces for these zones while the U.S. State Department worked to gain agreement with its Pan-American counterparts at the Panama Conference of that year.¹⁸ The Act of Panama of October 2, 1939, resolved to maintain neutrality patrols in the waters of the Western Atlantic and Caribbean to prevent the "New World" from serving as a battleground for the contest being waged in Europe.¹⁹ In reality, this new Pan-American policy provided a pro-British

¹⁸ Morison, *History of U.S. Naval Operations in World War II*, Vol. I, p. 14.

¹⁹ *Ibid.*, pp. 15-16.

situation in that it allowed for relatively safe waters through which Anglo-Canadian convoys could navigate close to the American continent. Also, since the United States Navy was the only naval power able to enforce the neutrality of the Western Atlantic, U.S. warships were now in the role of fending off and eventually hunting the aggressor in these waters -- Nazi Germany.

The neutrality zones at first encompassed the waters off the eastern seaboard of North America, South America and the whole of the Caribbean. Stretching out 300 miles from the American coastline, this was a large area to protect, and went far beyond the traditional concept of territorial waters. Two other additions to American guardianship responsibilities expanded the areas initially established for these neutrality patrols. First Greenland's Danish government invited American forces to protect the island colony. The second, although less enthusiastically received by its inhabitants, was a similar invitation from the government of Iceland. As the United States' fateful entry into the war drew nearer, these patrols and their boundaries extended from Iceland south to the Azores and back to the coasts of the Americas. Not only would the territory and responsibility for the protection of these sea-lanes increase substantially in the two years of war preceding America's entry, but the level of intensity in the prosecution of those

responsibilities would increase dramatically. U.S. Navy “patrol” vessels such as *Greer* (fired on by a U-boat), *Kearny* (torpedoed and damaged by a U-boat), and *Ruben James* (torpedoed and sunk by a U-boat) became the first American casualties in the battle being waged in a war yet undeclared.²⁰

Destroyers for Bases

While American armed neutrality protected the western, the waters around Britain and Europe became more and more perilous. Hitler’s *Blitzkrieg* into France in May of 1940, and that country’s subsequent fall in June of that year, created a critical situation for Britain. Standing alone, and guarded only by the Royal Navy, Royal Air Force, and the English Channel, Britain became the focus of Nazi aggression and the next target of Hitler’s European conquests.

As the battle for the skies over England raged in the summer of 1940, a prelude to the planned invasion of the Isles, the struggle in the Atlantic was at a critical stage for Britain. Although Britain had set upon a massive naval building program to bring new life to its ailing escort forces, those new vessels would not be ready for some time. British Prime Minister Winston Churchill felt that Britain could repel the Nazi onslaught if the country could bolster its escort ship numbers to prevent the German U-boat force from gaining a fatal choke hold on the island nation. Churchill needed to augment his naval forces

²⁰ Ibid., pp. 78-81, and pp. 92-92.

and bridge the gap between the present and the time when Britain's naval building program would begin to yield new vessels. To this end, Churchill wrote several letters to Roosevelt and requested the transfer of fifty obsolete World War I vintage U.S. Navy destroyers that sat mothballed.

The following correspondence between Roosevelt and Churchill outlined the serious problems Britain faced with respect to escort vessel shortages. In a telegram to President Roosevelt on May 15, 1940, Prime Minister Churchill made his first request for:

. . . the loan of forty or fifty of your older destroyers to bridge the gap between what we have now and the large new construction we put in hand at the beginning of the war. This time next year we shall have plenty. But if in the interval Italy comes in against us with another hundred submarines we may be strained to the breaking-point.²¹

The problem faced by Britain was clearly stated in the preceding passage. However, Churchill, in an continuing effort to impress upon President Roosevelt the critical nature of the shortage and the vital element of time, again contacted Roosevelt by cable on June 11, 1940 to stress the desperate situation at hand. He wrote, "Nothing is so important as for us to have the thirty or forty old destroyers you have already reconditioned. We can

²¹ Churchill, *The Second World War*, Vol. II, p. 353.

fit them very rapidly with our Asdics . . . The next six months are vital.”²²

These pleas were a compelling insight into the concerns Churchill had.

However, the letter Churchill sent to Roosevelt on July 31, 1940 not only displayed Churchill's desperation, but also showed the close relationship the two leaders shared. In addressing the letter, Churchill even evoked their mutual professional experience in their respective Navy departments:

Former Naval Person to President Roosevelt

31.VII.40

It is some time since I ventured to cable personally to you, and many things, both good and bad, have happened in between. It has now become most urgent for you to let us have the destroyers, motor-boats and flying-boats for which we have asked. The Germans have the whole French coastline from which to launch U-boats and dive-bomber attacks upon our trade and food, and in addition we must be constantly prepared to repel by sea action threatened invasion in the Narrow Seas . . .

We have a large construction of destroyers and anti-U-boat craft coming forward, but the next three or four months open the gap of which I have previously told you. Latterly the air attack on our shipping has become injurious . . . All this in advance of any attempt which may be made at invasion! . . . We could not sustain the rate of casualties for long, and if we cannot get a substantial reinforcement the whole fate of the war may be decided by this minor and easily-remediable factor.

This is a frank account of our present situation, and I am confident now that you know exactly how we stand, that you will leave nothing undone to ensure that fifty or sixty of your oldest destroyers are sent to me at once . . . Mr. President, with great respect I must tell you that in the long history of the world this is a thing to do now . . . I know you will do all in you power, but I feel entitled and bound to put the gravity and urgency of the position before you . . .

²² Ibid., p. 353. Asdic was the British name for the underwater acoustical range detection gear that the U.S. Navy refers to as Sonar.

I am beginning to feel very hopeful about this war if we can get round the next three or four months . . . I am sure that, with your comprehension of the sea affair, you will not let this crux of the battle go wrong for want of destroyers.²³

The issue of trading bases for destroyers met with significant opposition from Congress. Debate over issues of American neutrality caused Congress to approach the deal cautiously. This delayed action Roosevelt wished to take, but 1940 was a presidential election year, forcing caution on Roosevelt's part too. In spite of the risk during his presidential campaign, the tentative agreement for the aid that Churchill asked for was made on July 24, 1940. The bargain was officially struck on September 2 of that year.²⁴

The British would get their "new" old destroyers and other vessels in return for the establishment of American naval and air stations on the Bahamas, Jamaica, Antigua, St. Lucia, Trinidad, and British Guiana. These bases, once properly fitted out, would vastly extend America's defensive sphere and the nation's ability to project its offensive naval and air power, an ability that would well serve America's needs later in the war.²⁵

The trade of bases-for-destroyers was of the greatest mutual advantage to both parties. Where short-sighted American pacifism prevented direct

²³ Ibid., pp. 356-357.

²⁴ Morison, *History of U.S. Naval Operations in World War II*, Vol. I, p. 34.

²⁵ Ibid., p. 34.

support of their embattled English “cousins,” this effort of Roosevelt had many effects, perhaps summed up most aptly by the following passage from Samuel Eliot Morison’s voluminous *History of U.S. Naval Operations in World War II*:

This destroyer-naval base deal of 1940 was the first definite reaction by the Roosevelt Administration to a precarious situation which the American people in general were not yet willing to face . . . Consequently, President Roosevelt could only bolster up a tottering though defiant Britain insofar as such action increased American defensive strength . . . Franklin D. Roosevelt, with his uncanny perception and sense of timing, had gauged the situation correctly . . . the time gained by us for preparation was of inestimable value . . . During the U-boat *blitz* off our Atlantic Coast early in 1942, one of the high-ranking admirals in Washington wrote to Stark saying he wished we had those fifty destroyers and ten cutters. To which the former Chief of Naval Operations replied that owing to the “deal” those vessels had been working for us about a year longer than otherwise they would have done. Moreover, although ships were expendable, the bases received in exchange were not.²⁸

The impact of the trade was both decisive and timely. It provided not only weapons for Britain to stave off its mortal enemy, but allowed Britain the time it so desperately needed. The United States gained bases in the Atlantic that would serve as important locations throughout the war. Churchill recounted his own estimation of the trade’s mutually supportive value in his history of World War II:

²⁸ Ibid., pp. 35-36.

The President, having always to consider Congress and also the Navy authorities in the United States, was of course increasingly drawn to present the transaction to his fellow-countrymen as a highly advantageous bargain whereby immense securities were gained in these dangerous times by the United States in return for a few flotillas of obsolete destroyers.²⁷

Lend-Lease

The Lend-lease policy engineered by Franklin Roosevelt and passed into law by the U.S. Congress on March 11, 1941 was yet another manifestation of American assistance to Great Britain.²⁸ While the “bases for destroyers” deal was helpful to Britain in protecting the shipments of war materials purchased from the United States, the financial ability of Britain to continue a “cash-and-carry” relationship with “neutral” America was rapidly diminishing. Since the outbreak of the war, American neutrality would not allow American ships to enter war zones to deliver cargoes to nations at war. Belligerent nations could, however, send their vessels to American ports to pick up the cargoes and then carry them home. With these amended neutrality laws, America’s “cash-and-carry” policy allowed Britain to reconstitute itself with American manufactured goods, food, and war matériels.²⁹ However, credit or loans to belligerent nations by the U.S.

²⁷ Churchill, *The Second World War*, Vol. II, p. 361.

²⁸ Morison, *History of U.S. Naval Operations in World War II*, Vol. I, p. 37.

²⁹ Morison, *History of U.S. Naval Operations in World War II*, Vol. X, p. 4.

government, American business, or private interests was strictly forbidden. And yet, the expense of the war materials and other vitals Britain needed meant that Britain's liquid financial assets would be depleted in relatively short order.

The plan which President Roosevelt had devised with his close and long time advisor Harry Hopkins to deal with Britain's financial and material depletion was called Lend-lease. Lend-lease was associated with a general military and naval expansion program that the U.S. was beginning in the interest of national self defense. This expansion would greatly increase America's production capacity and build its armed forces, while at the same time allow Britain to purchase, lease, or borrow the surplus of this new American production on credit and/or good faith. The passage of House Bill 1776, on March 11, 1941 launched Lend-lease and had a profound effect on the European war.³⁰

With the passage of this bill into law, President Roosevelt proclaimed, "This decision is the end of any attempt at appeasement in our land; the end of urging us to get along with dictators; the end of compromise with tyranny and the forces of oppression."³¹ As Roosevelt's statement indicates, Lend-

³⁰ Morison, *History of U.S. Naval Operations in World War II*, Vol. I, p. 37.

³¹ Ibid., p. 37-38.

lease inched the American public closer to Britain's side and reflected a growing sense of the looming danger of the Axis threat.

As much as the new American Lend-lease policy angered the Germans, Hitler would not be provoked, nor would he provoke the Americans, into declaring war. With preparations for the Russian campaign drawing attention eastward, Hitler could not allow a new front to be opened with America. Extreme caution was to be exercised while approaching British convoys. Hitler ordered:

It is vitally important to put off America's entry into the war. . . Hence avoidance of all incidents with the United States and no change from previous directives. As before, only merchant ships may be attacked without warning in the prohibited area, but American ships are as far as possible to be excluded from this.³²

Roosevelt's Lend-lease had worked. It afforded Britain the means to continue American aid without worry about how the bill might be paid. America was becoming more and more a *de facto* ally, and the American public was becoming more sympathetic to offering the British a new lease on life. Although the American population was still firmly isolationist, soon the relationship between the nations would become more formal and dynamic than had ever been the case before.

³² Ibid., p. 38.

The Forming of an Alliance

The initiation of Lend-lease and increased American support for Britain was generally a reflection of growing confidence that Britain could survive in its struggle against Nazi Germany. However, in the summer of 1940, the Battle of Britain raged and U-boat successes in the North Atlantic were threatening the sea lines of communication. During that summer, Washington worried that British resolve would weaken in the face of German successes. With the recent defeat of France and the entry of Italy into the war, the situation in Europe looked bleak to the American top military and naval planners. Hitler extended the reach of his navy into the Atlantic sea lines of communication much farther from his newly occupied French Atlantic ports. Mussolini's navy could also add to that reach if brought out of the Mediterranean. Compounding these threats was the very real possibility that the French navy would come under Nazi control.³³ The naval supremacy that the United States and Britain had maintained almost exclusively in the Atlantic since Trafalgar seemed in serious jeopardy.³⁴

President Roosevelt, in an effort to assess the nature of Britain's war situation, dispatched Vice-Admiral Robert L. Ghormley to London in the role of "special naval observer." Admiral Ghormley's mission was twofold: 1) to

³³ Ibid., p. 39.

³⁴ Ibid., p. 39.

assess Britain's potential for survival, and having determined this, 2) open the door for conversations with the British on how America might integrate its forces with the British if the Americans were to be drawn into the war.³⁵ This second objective came from the realization that some initial contingency planning was greatly needed to prepare the United States in the event it entered the conflict.

Ghormley was convinced that the British would hold, and he relayed this impression to the president. Ghormley's second objective of opening a dialogue for further American involvement set the stage for joint Anglo-American planning conferences that would develop the basic strategic premise of the war. These first conferences and meetings would develop over a year and culminated in the historic meeting between Roosevelt and Churchill aboard the H.M.S. *Prince of Wales* in Placentia Bay, Newfoundland, on August 10, 1941. Subsequently, the declaration, later known as the Atlantic Charter of August 12, 1941, was drafted.³⁶ Both the British Admiralty and the American Naval War Plans division began preliminary planning for Anglo-American force integration.

From January to March of 1941 planners from both sides of the

³⁵ Ibid., p. 40.

³⁶ Winston S. Churchill, *Memoirs of the Second World War*, Abridged Edition (Boston: Houghton Mifflin Company, 1959), pp. 489-92.

Atlantic held joint conversations in regard to how American and British forces could divide some areas of responsibility and how they might act in concert in other areas. The result of these conferences was the “ABC-1 Staff Agreement” of March 27, 1941 that created the basic strategic premise of the Allied war effort.³⁷ Simply put, the strategic concept was to beat Germany first. It was hopeful that Germany would be the only power to beat. However, the situation between Japan and the United States in the Pacific was beginning to deteriorate. It could easily become a global war on two major fronts against all three members of the Tripartite Pact. If this developed, the American President and his chief planners agreed:

Since Germany is the predominant member of the Axis powers, the Atlantic and European War is considered to be the decisive theater. The principal United States military effort will be exerted in that theater, and operations of United States forces in other theaters will be conducted in such a manner as to facilitate that effort.³⁸

The joint staff meetings conducted by the diplomatic, military, and naval commands of both the United States and Great Britain helped cement the bond between the two nations. The two high ranking staffs worked together to create a strategic plan to guide the Allies to victory in Europe. The

³⁷ Morison, *History of U.S. Naval Operations in World War II*, Vol. I, p. 46.

³⁸ *Ibid.*, p. 46.

joint meetings also created the charter that would be the guiding principle in defeating Nazism and building a more hopeful future for all the peoples of the world.

The question of direct American involvement was no longer “if,” but “when” the U.S. would enter. These plans, leading to the agreements reached aboard the H.M.S. *Prince of Wales* on August 10-12, of 1941, would draw the blueprint for an Allied effort against the Third Reich and the other members of the Axis. Churchill recounted in his memoirs the dramatic symbolism and real impact this meeting carried in the following passage:

On Sunday morning, August 10, Mr. Roosevelt came aboard H.M.S. *Prince of Wales* with his Staff and several hundred representatives of all ranks of the United States Navy and Marines, attended divine service on the quarterdeck. This service was felt by us all to be a deeply moving expression of the unity of faith of our two peoples, and none who took part in it will forget the spectacle presented that sunlit morning on the quarterdeck -- the symbolism of the Union Jack and the Stars and Stripes draped side by side on the pulpit; the American and British chaplains sharing in the reading of the prayers; the highest ranking naval, military, and air officers of Britain and the United States grouped in one body behind the President and me; the close-packed ranks of British and American sailors, completely intermingled, sharing the same books and joining fervently together in the prayers and hymns familiar to both.

I chose the hymns myself -- ‘For Those in Peril on the Sea’ and ‘Onward Christian Soldiers.’ We ended with ‘O God, Our Help in Ages Past.’ Every word seemed to stir the heart. It was

a great hour to live. Nearly half those who sang were soon to die.³⁹

The die now cast, the British and American governments were heartened in their preparations for the future. For Britain, unlimited resources bought with Lend lease dollars kept her in the fight. For America, time to prepare for war was gained with every ton of war goods delivered to England. While the British and American made plans to fight against Germany, the clouds of war gathered in a stormfront over the Pacific. As 1941 drew to a close, the Japanese launched their attack on Pearl Harbor.

³⁹ Ibid., pp. 490-491. Those referred to by Churchill who were soon to die were lost at sea in the Pacific aboard Prince of Wales where she was lost to a Japanese air attack on December 10, 1941.

Chapter III

“Ready or Not. . .”

Just as the national ensign was being raised aboard the battleship *Oklahoma* on the morning of Sunday, December 7, 1941, she became the first victim of the Imperial Japanese Navy’s air attack at Pearl Harbor. During the next few hours since that first shattering explosion, flames and billows of black oily smoke spewed skyward from the eighteen ships that were sunk or damaged in the harbor. At the airfields on this island paradise, the charred wreckage of 347 planes littered the runways. A total of 2,403 American servicemen lay dead while another 1,178 were wounded.⁴⁰

On the afternoon of December 8, President Roosevelt proclaimed the previous day as “. . . a date which will live in infamy. . .” in his address to Congress asking for a declaration of war against Imperial Japan.⁴¹ Congress granted this request with unprecedented support. Four days later, the question of war with Germany was decided when Hitler declared war on the

⁴⁰ Nancy Ramsey and Eleanor Schwartz, “Attack,” *Life*, Special Collectors’ Edition (Fall 1991): p. 50.

⁴¹ Rosenman, Samuel I. ed., *The Public Papers and Addresses of Franklin D. Roosevelt: 1941 Volume, The Call to Battle Stations* (New York: Harper and Brothers Publishers, 1951), p. 514.

United States. Mussolini was close behind with his own declaration against the Allies. America was finally in the fight against the Axis.

The number and speed of Japanese successes as they seized the islands of the Western Pacific were absolutely astounding to the Allies. By February of 1942, Hong Kong, the Dutch East Indies, the Malay Peninsula, and eventually Singapore, the symbol of European strength and dominance in the Far East, had all succumbed to the Japanese onslaught. By May, the Japanese attacks on the Philippines yielded a similar fate for the American and Filipino defenders. The Allies had been disastrously routed in the Pacific.

With the American Pacific strategy shattered from the outset, a realignment of some assets was required to offset the great disparity of forces in the Pacific. The ships and resources were shifted from the Atlantic. This partially accounted for the ongoing disaster in the Atlantic as the U-boats achieved astounding successes.

However, the success enjoyed by the Germans were achieved for two principal reasons in the period between December 1941 until July 1942. The first was that Admiral Dönitz skillfully directed all U-boat forces available in a campaign aimed at exploiting America's most vulnerable shipping lanes.

The second reason for the success by the U-boats in American waters was the inaction and ineffectiveness of the U.S. Navy.

Dönitz's War Drums

Before the attack on Pearl Harbor, restrictions on Dönitz's U-boat operations against American flagged vessels were strictly limited to prevent an incident that might draw America into the war. The political situation between the Japanese and the Americans, however, offered the possibility that Japan might take such action as to draw America formally into the fight against the Axis powers anyway. With this in mind, Dönitz began drawing plans for that eventuality. For his plans to be effective, or at least to take maximum advantage of the relatively undefended waters off the American East coast, he hoped for some forewarning in order to place his U-boats in position. In his detailed memoirs of the war years, Dönitz related his concerns and desires for appropriate warning prior to the opening of hostilities with America. He recounted:

During the conference with Hitler on September 17, 1941, at which he repeated his instructions that all incidents with the United States were to be avoided, brief mention was also made of the situation that would arise, from the point of view of U-boat operations, if the United States was drawn into the war. I said that, in this event, I should like to be given timely warning, to enable me to have my forces in position off the American coast before war was declared. It was only in this way, I pointed out, that full advantage could be taken of the element of surprise to

strike a real blow in waters in which anti-submarine defenses were still weak.⁴²

Dönitz did not, as he had hoped, get the warning he needed to position U-boats off America's east coast. The Japanese attack on Pearl Harbor was so guarded a secret, that Germany was not informed prior to the attack. Even after the Japanese attack, the restrictions Hitler had placed on U-boats regarding the rules of engagement with American vessels were not removed by German Naval High Command until December 9, 1941.⁴³ Consequently, Dönitz did not have the freedom of action necessary to take full advantage of the opportunity to strike formidably at his new enemy at the opening of hostilities. The first U-boats in American waters arrived in mid-January, a full month after the war with America began.

Although the late placement of U-boats in American coastal waters delayed Dönitz's timetable to strike a severe blow against unprotected shipping, the operation finally mounted was a devastating success. This operation was named "*Paukenschlag*" or Drumbeat. Operation Drumbeat called for simultaneous surprise attacks by as many U-boats as could be possibly be organized against the unescorted merchant vessels which steamed up and down the American eastern seaboard.

⁴² Dönitz, *Memoirs*, p. 195.

⁴³ *Ibid.*, p. 195.

From the opening shots on January 13, 1942, Operation Drumbeat was an immediate success. American anti-submarine escort vessels in the Atlantic were spread very thin, and the Allied trans-Atlantic convoys relied heavily upon the small number of American escort ships available. Movements of large combat ships from the Atlantic to the Pacific theater also drew a handful of the Atlantic fleet's escorts with them. Additionally, because many of the escorts had been overworked and worn-out, they were in shipyards for badly need repairs and refits. Thus, the seaways along America's Atlantic coast lacked an effective defense force. Vessels in these sea-lanes steamed independently until they reached their convoy assembly points, at which time they started their Atlantic crossing with the relative safety that their numbers and escorts could provide.⁴⁴ When steaming alone, however, these unguarded merchant ships were easy prey for the silent hunters that lay in wait.

When Drumbeat began in mid-January 1942, only five U-boats were available for the operation. These U-boats were sent to their new hunting grounds between the St. Lawrence River and Cape Hatteras on the American east coast. The five U-boats found exceptional conditions for submarine warfare. All along the coastline, the lights of the coastal towns, cities, and resorts provided a luminescent backdrop for attackers. Operating at night on

⁴⁴ Ibid., p. 195.

the surface, the five U-boats of Drumbeat wrought havoc on the silhouetted shipping that crossed between the U-boats and the glowing coastline. By day, the U-boats would retreat east a few miles from the shipping lanes and rest submerged in deeper water until dusk when they surfaced and took up the hunt again.

A second wave of U-boats took action in the waters between Trinidad, Curacao, and Aruba beginning in February 1942. Again, with only five boats available, this combined and coordinated force claimed twenty-three merchantmen for a total of 107,919 tons in February.⁴⁵ With the few new U-boats added to the Drumbeat campaign, American losses continued to grow. Twenty-six vessels were sunk by the now twelve U-boats of Drumbeat in May 1942 for 150,277 tons.⁴⁶ In June 1942, the worldwide Allied merchant losses totaled 144 ships with sixty percent of those losses suffered in the Gulf of Mexico and Caribbean Sea areas.⁴⁷ These losses were a tremendous blow to the Allies. The losses of greatest concern to the Allies were oil tankers. From January through June 1942, twenty-five American tankers with another sixty-eight British tankers were among the total losses.⁴⁸ These tanker losses were

⁴⁵ John Terraine, *The U-Boat Wars: 1916-1945* (New York: Holt & Co., 1990), p. 421.

⁴⁶ *Ibid.*, p. 421.

⁴⁷ *Ibid.*, p. 421.

⁴⁸ *Ibid.*, p. 421.

of particular concern as they carried the vital fuel of the Allied war effort. In letters between Prime Minister Churchill and President Roosevelt these losses were a constant worry of Churchill (see Appendix).

Drumbeat might have been a far greater blow had it not been for the diversion of Dönitz's U-boats slated for these operations. Hitler's concern that the Allies might attempt landings to reclaim Norway caused him to order, through the Naval High Command Headquarters, that there be a force of eight U-boats maintained in, or near, Norwegian waters. Another twenty-three U-boats were required by Naval High Command to maintain a presence in the Mediterranean Sea. With other boats on station along the North and South Atlantic convoy routes, and the remaining forces undergoing refit and repair, Dönitz was never able to assemble the forces he wanted to fully exploit the situation in American waters. Indeed, had the U-boat force in American waters been larger, Dönitz's force might have delivered a crushing blow to the Allies.

Despite the limitations placed on the number of U-boats in Dönitz's Drumbeat operation, however, it was sufficiently successful that this period became known among German submariners as "the happy time."⁴⁹ The

⁴⁹ Ibid., p. 426.

success rate peaked by the end of July 1942, but continued significant results through end of that year.

Problems with American Preparation

When the United States entered the war as an official belligerent nation, it did so with a number of serious deficiencies. To begin, the preparation for the Navy's role in anti-submarine (ASW) during the pre war years was negligible. Although the lessons from the World War I German submarine campaign, as well as the campaign waged from 1939 to America's entry into the war in 1941, these lessons were ignored or not inadequately applied in preparing for the submarine campaign at America's front door. The types of ships, technology, trained personnel, and weapons best suited for ASW were neglected in the years leading to direct American involvement in the war. American unpreparedness for war allowed the U-boats of Operation Drumbeat to be far more successful for a far longer period than should have been the case.

In the period between the World War I and World War II, the emphasis in the American Navy's ship building programs leaned heavily on the side of large capital ships such as battleships, aircraft carriers, and cruisers. Destroyers and other types of escorts were built also, but in fewer number, and for the most part without the modern tools and weapons that made them

efficient ASW platforms. The American government and Navy department believed that smaller vessels like destroyers and anti-submarine craft could be built fairly rapidly if the need arose, whereas the larger vessels could not be constructed quickly enough in time of emergency. However, when the war did come, the Americans found that construction of vessels suited to ASW was neither rapid nor inexpensive!⁵⁰

The Navy also neglected investment in and development of new ASW technology. Sonar and radar were two of the Allies' key tactical tools for the detection of enemy U-boats. Sonar is a sound echoing range finding device. Sonar is able to detect submerged submarines with active sound pulses to create echoes. Also used for underwater detection was passive listening gear used to hear the sounds of a submarine's screws and machinery noises. The combination of these underwater detection devices were vital in combating U-boats.⁵¹ Radar was vital in detecting surfaced submarines. U-boats preferred night surface operations because of their increased speed and because their small size and low silhouette made them extremely difficult to see in the dark. However, radar could detect a U-boat at a significant distance, day or night, and allow Allied convoy escorts to charge down a stalking U-boat before

⁵⁰ Ladislav Farago, *The Tenth Fleet* (New York: Ivan Obolensky, Inc., 1962), p. 73-75.

⁵¹ Morison, *History of U.S. Naval Operations in World War II*, Vol. I, pp. 212-213.

it could strike. Both sonar and radar were essential in the fight against the U-boats, yet only a small number of American escort ships were equipped with this hardware.

The short supply of sonar and radar sets aboard escort ships was a tremendous problem for the U.S. Navy in 1941. The small number of adequately trained personnel made an already bad situation worse. In his book about his experiences during the Atlantic campaign entitled, *The Tenth Fleet*, Ladislas Farago discussed the extent of these particular deficiencies.

Up to 1941, only a handful of officers had what Washington lingo calls cognizance of and training in antisubmarine warfare, and even that on a rather rudimentary basis. This lack of interest in antisubmarine warfare was mirrored in the want of everything the Navy needed to throw against the U-boat -- in ships, devices, and men. At the outbreak of the war, the Navy had only 170 vessels equipped with sound gear, the primary device for detection of submerged submarines, and only a handful of men more or less qualified to handle it. At that time, the navy's foremost sonar expert was a chief radiomen named W. A. Braswell and he was put to work overtime to teach a new generation of soundmen. Braswell was up against odds any educator would have regarded as absolutely prohibitive -- he had no textbooks nor enough sound equipment to aid him -- yet he somehow managed to train hundreds of men, although his first course, which opened on November 15, 1939, had only sixteen bluejackets assigned to it.

The situation was dismal as far as radar was concerned and there was no Braswell to improve it quickly.⁶²

⁶² Farago, *The Tenth Fleet*, pp. 75-76.

U.S. Naval communications was still another area that had many deficiencies highlighted by wartime conditions. The slow and deliberate process that the U.S. Navy used to keep its radio signals traffic secure in peacetime, was overwhelmed in wartime conditions. The cumbersome nature of the communications process meant that in the early phase of American participation the mass of U-boat reports and other vital pieces of information seldom reached Allied ships at sea in time. Samuel Eliot Morison stated:.

It was more important to get essential information to our forces than to deny it to the enemy; but during the first year of the Atlantic war, the Navy laid such stress on the security of communications that they sometimes failed of the essential purpose to communicate.⁵³

Finally, the service rivalries between the Army Air Corps and the Navy often prevented proper coordination of American air and sea. Air patrol of sea-lanes was impeded due to the limited number of aircraft in both service branches suited to this role. It was also limited because of the quarrelsome relations between the two services often prevented an effective pooling of resources to get a desperately needed job done.

The Allied losses in the U-boat campaign in American waters were heavy, with the toll surpassing merchant marine losses in World War I in the

⁵³ Morison, *History of U.S. Naval Operations in World War II*, Vol. I, p. 107.

first six months of 1942⁶⁴ Too often the real and large scale human suffering of such a campaign gives way to data and statistics that are as cold as the ocean on which these battles were fought, but the losses of servicemen, merchant sailors, and civilians in the icy Atlantic waters were the price paid for the American Navy's unpreparedness. The following passage from *The Tenth Fleet* reveals the nature of the human suffering in the terrifying drama that continued across the expanse of the Atlantic Ocean for the next four years. Farago recounted:

When the Standard Oil tanker W. L. Steed was torpedoed in February, 1941, eighty-five miles off the Virginia Capes, all four boats were launched, even though two U-boats surfaced to slug the mortally wounded tanker from their deck guns at point -blank range. The weather was bad. There was a snowstorm to complicate this and the boats pitched crazily in the running seas. Conditions in the boats were chaotic because there had been no time to observe the abandon ship drill. In the abruptness of the emergency, most of the men scrambled into the boats hatless against the wintry winds and in shirtsleeves.

But every man got into the boats-the captain even carrying his briefcase with the ship's papers-and now they did not let any panic grip them. The shore was only a hundred miles away. The boats were in busy ship-lanes. The expected to be picked up soon since the radioman had signaled their position just before the end.

And yet, the sea held out slight promise for these brave men. The slow agony of their gradual death now stands as one of the great sagas of this uneven battle.

No. 1 lifeboat vanished without a trace. There were no survivors from No. 4 when it was eventually found. Only one of the fifteen men in No. 2 lived through the ordeal.

⁶⁴ Ibid., p. 200.

No. 3 lifeboat cleared with five men, apparently the fittest of the lot, for they put on a stiff and ingenious struggle against their fate. They rigged up an auxiliary anchor from a broken water keg; they bailed out whenever the heavy seas mounted over the gunwales; and they kept warm to some degree by hovering over a flame in a bucket, in which they burned wood chipped from the boat, destroying , board by board, the little craft they hoped would preserve them.⁵⁵

Only in August of 1942 did the U.S. Navy begin to meet the disaster with some measures that slowed the destruction of America's coastal shipping. However, the first half year of Dönitz's U-boat campaign off America's Atlantic and Gulf coast served to demonstrate the inherent weakness of the United States' defensive capacity in this new area of responsibility. The near helplessness in the opening months of 1942 is illustrated by the fact that the greatest number of merchantmen in the entire Atlantic and Arctic areas were being sunk just miles off the eastern shores of American continent (See Table #2 on page 48 and Atlantic chart on page 49).

When the mantle of neutrality was finally discarded, America's initiation into the Battle of the Atlantic was summed up best by Morison's analysis that "... the United States Navy was woefully unprepared, materially and mentally, for the U-boat *blitz* on the Atlantic coast that began in January of 1942."⁵⁶ It was not until mid-1943 that the U.S. Navy reversed

⁵⁵ Farago, *The Tenth Fleet*, p. 79-80.

⁵⁶ Morison, *History of U.S. Naval Operations in World War II*, Vol. I. 200.

this bleak situation. America's industrial capacity allowed for such a reversal, but it also required a shift in organizational structure, training, scientific development of technical and procedural strategy and tactics, and of course more ships.

⁵⁷ Morison, *History of U.S. Naval Operations in World War II*, Vol. I, pp. 412-414.

ALLIED MERCHANT SHIP LOSSES BY U-BOAT ATTACK ⁵⁸
December 1941 - July 1942

⁵⁸ Ibid., p. 124. All charts hereafter show both individual sinkings (marked by lone crosses) and areas of concentrated sinkings (marked by clusters of crosses).

Chapter IV

Organizing for Victory

The successes of Dönitz's Drumbeat operations in American waters stunned the U.S. Navy. Even though there were sharp declines in Allied merchant ship losses in those areas during the second half of 1942, the crisis was far from over. Defenses against the U-boat threat were still under-strengthened in the second half of 1942 and continued to be so into the spring of 1943. The decline in Allied vessels sunk directly correlates to the ongoing measures the U.S. Navy took to reorganize and retool itself. By August and September of 1942, the first steps toward stemming the losses off America's east coast showed significant results (see Table #3 on 51).

In the spring of 1943 the U.S. Navy, under the direction of Admiral Ernest King, studied the ASW crisis and the Navy's dismal performance since the beginning of 1942. Admiral King acted upon the results of those studies and produced a number of solutions. Identifying the Navy's problems was a quick process; however, fixing those problems took time. The Navy's ASW problem analysis studies identified the need for a fundamental shift in the organization of the Navy's ASW forces. The shift in organization of the Navy's

ASW program included establishing convoy systems, upgrading and overhauling ASW training, deciding upon jurisdiction of long-range ASW air

patrols, devising new sensor and weapon systems, and building new ASW escort vessels. All of these efforts were placed under the newly established

⁵⁹ Morison, *History of U.S. Naval Operations in World War II*, Vol. I, pp. 412-414.

Tenth Fleet which was assigned to the task of defeating Hitler's U-boats.⁶⁰ The cumulative effect of these measures would eventually lead to Allied victory in the Battle of the Atlantic. The driving force for all of these measures was Admiral Ernest J. King.

Admiral King and History

Admiral King played a significant role in the drama of the Atlantic war. His impressive career and credentials as a professional naval officer caught the eye of President Roosevelt as America entered World War II. King was a tough-minded and exacting professional who required the highest standards not only from the men who served under him, but from himself as well. In his book, *Hitler's U-Boat War*, Clay Blair, Jr. gives the following insight into the personality and qualifications of King as a key leader during World War II. Blair wrote:

King was a brilliant, salty fighter, so flinty and tough, the story went, that he 'shaved with a blow torch.' In his forty-year professional career he had served on surface ships and submarines, had qualified as a navy pilot, and had been a pioneer in naval aviation and carrier operations. No one knew the strengths and weaknesses of the Navy--and its senior officers corps--better. No one was more offensive-minded or more eager to avenge the treachery of Pearl Harbor, which had left the Navy in shock and despair. Although King was approaching retirement age, Secretary of the Navy Frank Knox had

⁶⁰ Morison, *History of U.S. Naval Operations in World War II*, Vol. X, pp. 21-22.

recommended him to Roosevelt as the admiral most qualified to shake the Navy out of its post-Pearl Harbor paralysis.⁶¹

King's bearing was often cold and acidic, but he had the absolute confidence of President Roosevelt as the man who could best prosecute the naval war in both the Atlantic and Pacific. History, especially that written by both the British and also U.S. Army historians, has often been as cold to King's legacy as King was to his contemporaries. The criticism of King from British historians and U.S. Army historians has been generally unfair and perhaps predicated by King's own animosity toward Britain and the U.S. Army during the war. Nonetheless, a great deal of credit for the successful prosecution of the U.S. Navy's antisubmarine war against Nazi Germany's U-boats rests with Admiral King. It was his leadership which brought about the fundamental reorganization of the Navy's ASW efforts in the Atlantic that led to final victory.

King's British critics charge that his emphasis in the Second World War lay in the Pacific, and thus contributed to the disasters in the Atlantic suffered by merchant shipping in 1942. Evidence for this charge has been the accusation that King continually shifted ASW-capable escort vessels to the Pacific to bolster his fleet there. This charge was not true. King needed to shift some capital ships to the Pacific in order to reconstitute the decimated

⁶¹ Blair, *Hitler's U-Boat War*, p. 444.

Pacific Fleet. In doing so, approximately twenty percent of the U.S. Atlantic Fleets ASW escort vessels did shift to the Pacific during 1942. However, when taking into consideration the construction of new escorts those that joined the Atlantic Fleet in 1942 to replace these vessels, the Atlantic Fleet had a net gain of three escorts by September of 1942.⁶²

The charge has also been made that Admiral King “refused” to organize escorts or convoys along America’s eastern seaboard. The simple fact was that because of convoy duty in the North Atlantic and other vital escort missions, few ships were available. Therefore, establishing a convoy system and protection for convoys was nearly impossible in American waters in the opening half of 1942 and very difficult in the latter half. In reality, King was an avid supporter of the convoy system for the transport of men and matériel across the Atlantic, because he believed convoys were “the *only* way that [gave] any promise of success.”⁶³

King’s dedication to the fight in the Atlantic against Germany’s U-boats is well documented for those who wish to investigate. Unfortunately, the slurs and distortions of his acts and record have been repeated over and over again in the decades since the war. Repetition has given these weak charges against King the stature of fact. In the period of the heaviest losses

⁶² Ibid., p. 749.

⁶³ Farago, *The Tenth Fleet*, p. 163.

off the American coast during those bleak days of 1942, King did reroute some of the destroyers that might have been used for the protection of merchant shipping off America's coast.

One of the missions to which these valuable escorts were assigned was the escort of American troop ships to the European theater of operations. King gave the highest priority to the task of protecting the tens of thousands of America troops that were transported from the United States to Greenland, Iceland, England and eventually North Africa. Not a single troop transport was lost during any troop build up or invasion during the war. Yet, little mention of this fact is made by King's detractors. Detractions and myths aside, King did effect real changes in his navy over the course of the war to stem the tide of Dönitz's U-boat campaigns.

Convoys in American Home Waters

The delay of convoying in American coastal waters and the Caribbean was one of the reasons for the success Germany's Operation Drumbeat. For months there was no real convoy system in effect for the hundreds of vessels that used these heavily traveled coastal waterways each day. In early 1942, the principal reason for the lack of was shortage of escorts. Vice-Admiral Adolphus Andrews, who was the commander of the Eastern Sea Frontier and charged with establishment of convoy defense, understood "that convoying

without adequate protection is worse than none [at all]. . .⁶⁴ This statement was based upon the very real fear that a convoy without the protection of escorts was a collection of targets neatly packaged for Dönitz's U-boats on the prowl.

The best that could be arranged for Allied merchant ship protection was what Admiral Andrews called "bucket brigades."⁶⁵ The "bucket brigade" was a method of shuttling merchant ships along the American coastal routes during daytime with the few escorts that were available. By nightfall, these merchant ships put into safe harbors until daylight came once more. Since U-boats operated almost unfettered at night, the hope was that Allied merchant ships could make dashes from port to port during daylight to reduce the danger of U-boat attacks. For this job, Andrews had at his disposal about twenty vessels of mixed types, not all suited for ASW escort, and just over one hundred aircraft, many of which were obsolete. However, Andrews used every vessel and plane he could get to escort merchant shipping: destroyers, coast guard cutters, tugs, trawlers, and even yachts.⁶⁶ Owing to the fact that there were so few escorts, even for "bucket brigades," this measure had only marginal, if any, impact between February 1942 and April 1942. The poor

⁶⁴ Morison, *History of U.S. Naval Operations in World War II*, Vol. I, p. 254.

⁶⁵ *Ibid.*, p. 254.

⁶⁶ Edwin P. Hoyt, *The U-Boat War* (New York: Arbor House, 1984), p. 134.

performance of “bucket brigades” as an effective defense is evident when Allied merchant ship losses for this period in American waters are reviewed (see Table #3).

In March 1942, Admiral King acted upon the report of the board he established to develop a convoy plan for America’s east coast. Since there were too few escorts to cover every convoy run, escort vessels would protect only convoys operating along America’s eastern seaboard where there were few ASW air patrols. In the coastal areas where air patrols were heaviest, the “bucket brigade” system remained in effect. When more escorts became available, they were formed into convoy escort groups to replace the last of the “bucket brigades.”⁶⁷

The convoy system had the desired effect on the American east coast and it became more and more difficult for Dönitz’s U-boats to operate in these protected waters. The number of sinkings in America’s Eastern Sea Frontier dropped dramatically as a result of the convoy system’s growing effectiveness. Therefore, Dönitz shifted operations to the Caribbean Sea and the Gulf of Mexico to find better hunting and more favorable conditions. Better hunting for the U-boats was found in the Caribbean and along the Gulf coast of the United States. These areas suffered heavy losses from May 1942 until

⁶⁷ Morison, *History of U.S. Naval Operations in World War II*, Vol. I, p. 256.

September 1942 when the convoy system was established there also (see chart on page 59).

With Dönitz's shift of U-boat operations to the Gulf of Mexico and Caribbean Sea, convoys were also needed in these areas and were established as soon as more escort ships became available. What evolved was the Interlocking Convoy System that encompassed the eastern coasts of North and South America, the Caribbean Sea, and the Gulf of Mexico (see chart on page 60). The Interlocking Convoy system was a web of connected convoy routes that shuttled merchantmen from one route the next until the vessels reached their destinations. By August 1942, the Interlocking Convoy system in the western Atlantic was fully in place and remained so until the end of the war in 1945.

The Fleet Without Ships

Dönitz's campaign in 1942 and the ASW agreements made between the Allies at the Casablanca Conference pressed King to change the Navy's ASW structure. To become a more effective force, the many different ASW commands were united under one umbrella. As a first step toward unification, King commissioned Admiral Francis Low to research and write a memorandum which centered on an "appreciation of the antisubmarine

August 1942 - May 1943

⁶⁸ Ibid., p. 313.

THE INTERLOCKING CONVOY SYSTEM⁶⁹ **End of 1942-1943**

⁶⁹ Ibid., p. 26.

situation.”⁷⁰ Admiral Low was well suited to this task both in intellect and in experience. He had served in submarines for many years earlier in his career and had a special insight into submarine warfare. This, coupled with the vast research he undertook in both British and American sources on AWS, helped him to produce King’s ASW situation memorandum.⁷¹ Admiral Low presented his analysis to King on April 30, 1943. Within the memorandum Low stated that “the prosaic answer to the problem is *enough* escorts *and* aircraft, recognition of fundamentals, and pressure to make them work.”⁷² Admiral Low also “. . . laid equal stress on training as a requisite for victory.”⁷³ He ended by saying “improvement of the present situation will result if all officers in the chain of command require that fundamentals be learned and applied.”⁷⁴

Upon receiving Admiral Low’s analysis and recommendations of the ASW problem, Admiral King responded to Low by saying “I am now convinced that a fleet for antisubmarine warfare is a military necessity”⁷⁵ He set the wheels in motion to establish the Tenth Fleet of the United States Navy in April 1943. With King assuming its command and Low as his Chief of Staff,

⁷⁰ Morison, *History of U.S. Naval Operations in World War II*, Vol. X, p. 21.

⁷¹ Farago, *The Tenth Fleet*. p. 164.

⁷² Morison, *History of U.S. Naval Operations in World War II*, Vol. X, p. 21.

⁷³ *Ibid.*, p. 21.

⁷⁴ *Ibid.*, p. 23.

⁷⁵ Farago, *The Tenth Fleet*, p. 165.

there was no doubt that this new fleet unit was to be given full cooperation from the Atlantic Fleet and from all other commands in the Atlantic. The move to fleet status was necessary in King's view because it organized the random ASW forces spread throughout the different commands of the Atlantic under one umbrella for the solitary goal of destroying Germany's capacity to wage a U-boat war. Farago's book, *The Tenth Fleet*, outlines King's reasoning as follows:

- (1) Antisubmarine warfare needed a commander of the highest rank whose prestige and influence would be paramount and who could make his decisions prevail.
- (2) The organization he [King] had in mind would have no ships of its own, but would have recourse to every vessel of the United States Navy with inherent and explicit power to commandeer whatever forces when and where needed for antisubmarine operations.
- (3) It had to be a small organization with assured and easy access to any and all agencies of the Navy, and especially to the various existing intelligence services and their resources.
- (4) It had to have the status of a fleet, partly to simplify its personnel and administrative structure in a headquarters-type organization, partly to function along operational lines, and mainly to be able to use the channels of fleet communications.⁷⁶

So organized, the Tenth Fleet would make use of every operational command in the Atlantic to build an effective and lethal ASW force. It

⁷⁶ Ibid., pp. 165-66.

integrated specialized fleet training, coordinated land, sea and air assets, and gave serious purpose to an all out counter-offensive against the U-boats of the *Kriegsmarine*. By mid-1943, the impact of this new force was very real. The Tenth Fleet became the cornerstone of America's concerted effort to reclaim command of the seas in the Atlantic for the Allied powers.

Training

Training was of paramount importance in the struggle to overcome the America's U-boat opponent. Training was one of the key issues that both Admirals King and Low identified as an important factor to be incorporated in the building of the Tenth Fleet's resources. Although not technically attached to the Tenth Fleet, the Operational Training Command of the larger Atlantic Fleet serviced the needs of the Tenth Fleet. It providing high quality ASW training for crews that the Tenth Fleet relied upon to defeat the German undersea menace.

In March of 1943, Admiral Royal E. Ingersoll, Commander-in-Chief of the Atlantic Fleet, charged the Operational Training Command with providing intense and realistic training for crews of escort vessels. Crews awaiting assignment to new vessels and crews ready for their shake-down cruises would receive intense ASW training. No sailor going to the Fleet to serve aboard ASW escort vessels would stand idly while waiting for final

assignment orders. Every opportunity was used to prepare the men for the arduous task of escort duty. Refresher courses for experienced naval personnel were added to the Fleet's ASW requirements. The need to keep older crews' skills honed and up-to-date was necessary as new equipment and tactics were employed in the Fleet.⁷⁷

The Operational Training Command was an organization located on U.S. Naval bases and stations all along the Atlantic coast. It was reorganized during the U-boat crisis of 1942-43 so that these different locations became like the various "colleges" of a newly formed "Antisubmarine University."⁷⁸ Admiral Donald Beary, the commanding officer of the "university" established the new premise on which the ASW training units of the Operational Training Command operated. Beary ordered:

The paramount tasks of your task group are to accomplish the most effective training and indoctrination of all Antisubmarine Specialists and Attack Teacher Instructors ordered to your command and to insure that the methods and procedures of antisubmarine instruction at all surface craft training centers . . . are adequate and in strict accord the latest approved standards, to the end that all personnel and units will be fully ready for active operations against enemy submarines upon the completion of their training periods.⁷⁹

⁷⁷ Morison, *History of U.S. Naval Operations in World War II*, Vol. I, pp. 47-48.

⁷⁸ Ibid., pp. 47-48.

⁷⁹ Ibid., p. 48.

Within this “university” system, the crews of subchasers, destroyers, and destroyer escorts underwent intense shake-down cruises to provide the “hands on” application of their shoreside training schools before they reached the fleet. In other “colleges,” ASW training was developed for Naval aviators and their crews also. These ASW air training centers built around the latest devices and tactics for coordinated operations with ASW surface vessels to make them the most lethal tool in defeating U-boats in the Atlantic. To insure that this ASW trained force would stay intact and not be subject to the traditional rotations of naval personnel to various fleet units, all ASW trained personnel were exempted from such rotations.⁸⁰

New Sensors, Weapons, and Ships

The development of new sensor systems, new weapons systems, and the new ships that would house those systems had a radical impact on the outcome of the ASW war in the Atlantic. The new systems that were produced were always guided by King’s practical hand. King brought civilian scientists into the research and development centers of the Navy and made sure that the investment of time and resources produced systems that were immediately employable. King would not take even the best ASW device into

⁸⁰ Ibid., pp. 50-52.

consideration if it took two years to develop. The war was being fought daily and needed immediate counter-measures to the U-boats.

Improvements to radar and sonar were made to increase the effectiveness of escort ships and aircraft in their constant vigil to detect enemy submarines before U-boats could strike. Improvements in sonar equipment were being developed by the Navy throughout war. The sonar used was an impulse wave that was faster than sound that would echo off an underwater target. This was based on Asdic that was developed by the British before the war. The newer versions were more reliable and were better able to switch from an active impulse mode to a passive listening mode.⁸¹ Sonobuoys were another development to the airborne detection arsenal. A sonobuoy is a small buoy dropped by an aircraft over the suspected location of a submerged submarine. Sonobuoys had a small sonar that transmitted the machinery and propeller noises of a submarine back to the deploying aircraft.⁸² Still another development was High Frequency Direction Finder (HF/DF) equipment, or Huff Duff. Developed from earlier British designs, Huff Duff was used on shore-stations and eventually installed aboard ships to track and pinpoint the origin of enemy radio transmissions.⁸³

⁸¹ Theodore Roscoe, *United States Destroyer Operations in World War II* (Annapolis: United States Naval Institute, 1953), pp. 59-60.

⁸² Blair, *Hitler's U-boat War*, p. 477

⁸³ *Ibid.*, pp. 476-77.

Improved radar for escort vessels, and especially the newly introduced ten centimeter airborne micro-wave radar, were vast improvements in the sensor revolution of war technology.⁸⁴ Magnetic Airborne Detectors were added to aircraft as the war proceeded, allowing aircraft to detect submerged U-boats that registered on these devices as the aircraft passed within detection range.⁸⁵ Also, searchlights were added to some ASW aircraft for spotting and highlighting U-boats operating on the surface at night.

Once enemy subs were detected they had to be destroyed. To that end, the Navy developed new and improved airborne depth bombs that sank more quickly and had heavier warheads. These newer weapons were far more effective than previous devices. Also, the airborne homing torpedo, or "Fido," improved ASW aircraft's lethality.⁸⁶

Aboard surface escort vessels, newer designs for depth charges increased the performance of these ships. The traditional railed, roll-off depth charge was redesigned with a more powerful explosive to improve the escort's killing power. Also added to the ASW fleet's arsenal was the new "hedgehog" device. The "hedgehog" was a rack of rocket-launched depth charges that, when fired, threw a deadly pattern of twenty-four thirty pound

⁸⁴ Ibid., p. 476.

⁸⁵ Ibid., p. 478-79.

⁸⁶ Ibid., pp. 477-78.

explosives ahead of the launching escort. The combination of roll depth charges from an escort vessel's stern, side-launched depth charges from an escort vessel's broadsides, and ahead-throwing depth charge launched from an escort vessel's bow created a far greater killing radius for these newly equipped escort vessels.

Among the new vessels added to the fleet were escort destroyers and corvettes designed especially as ASW platforms. However, the greatest addition to the fleet's inventory of ASW vessels was the escort aircraft carrier. Called "jeep carriers" and also "baby flat tops" by their crews, these vessels provided the means of driving Dönitz's U-boats away from the convoys that delivered the vital supplies for the final liberation of Europe. Where even the very long range land-based ASW patrol aircraft had coverage limitations, the escort aircraft carrier (CVE) traveled with or near convoys and provided a constant defensive ASW umbrella with their aircraft. The CVE also operated in hunter-killer groups along with several destroyers and destroyer escorts as an offensive task force to track down and kill U-boats wherever they were known to be.

The combination of events under Admiral King's leadership from mid-1942 through the summer of 1943 built the Navy's capacity to turn the tide of Hitler's U-boat war. The U.S. Navy reorganized its operational structure,

specialized its training, installed defensive convoy measures, and developed new sensors, new weapons, new ships, new aircraft, new tactics and new strategies for its war against the Germany's U-boats. Thus, the stage was set for the American offensive contribution to the war in the Atlantic. This contribution continually grew from mid-1943 until Germany's defeat in May of 1945.

Chapter V

Turning the Tide

As the year of 1943 began to unfold, the tide of the war began to shift in favor of the Allies. This trend was not clear to the Germans or their Anglo-American opponents in the spring of that year, but by summer the shift became evident. Dönitz's new and successive campaigns against Allied merchant shipping in 1943 produced fewer results. At the same time, the Allied ASW efforts claimed a higher number of U-boats during 1943 and continued until the war ended in May of 1945. Table #4 on page 71 shows losses for both sides. What changes occurred that year to create such a radical shift in the Battle of the Atlantic in favor of the Allies?

There are a number of factors during the year of 1943 that contributed. One was that the Allies had managed a more potent defense by the fall of 1942 as discussed in Chapter Four. However, this factor accounts more for the reduction in merchant ships lost than it explains the dramatic increase in U-boats sunk. The one event that dominated the period was the integration of land-based aircraft and the newly arrived carrier-based aircraft of American escort carries (CVE).

Table #4
ALLIED MERCHANT SHIP LOSSES BY U-BOAT ATTACK ⁸⁷
U-BOAT LOSSES BY ALLIED ASW
(All Atlantic and Arctic Zones)
August 1942 - December 1943

4 or fewer Allied Merchant sinkings not recorded on this chart for any Atlantic/Arctic zone

Tactical ASW air support for the Atlantic Fleet, whether as part of CVE convoy escorts, as part of CVE hunter-killer groups, or as part of the long

⁸⁷ Morison, *History of U.S. Naval Operations in World War II*, Vol. I, p. 415., and , Vol. X, p. 336.

range land-based aircraft patrols would come to dominate the scene in the fight against the U-boats until Germany's surrender in May 1945.

Loose Ends

One unfortunate controversy between the U.S. Navy and the U.S. Army Air Force needed a resolution before one of the most effective weapons of the ASW effort could be efficiently employed. The core of the feud centered on which service should have control over land-based, long range and very long range ASW patrol aircraft. The philosophical debate that had long preceded the war developed into a bitter and heated feud between the services.

Since the 1920s, the Army had secured for itself control of land-based air operations for American defense. As a consequence the Navy was relegated to only those light aircraft based aboard aircraft carriers, or long range aircraft designated for maritime patrol and reconnaissance. When America entered the war in 1941, the First Bomber Command of the U.S. Army Air Force was made responsible for the aerial defense and patrol of America's coastal waters.⁸⁸ The Navy's opinion was that jurisdiction of land-based ASW air assets, regardless of service branch, ought to be integrated into naval command authority. Since the war against U-boats and the war at

⁸⁸ Farago, *The Tenth Fleet*, p. 101.

sea were one in the same, the Navy believed that its claim this responsibility was valid.⁸⁹

Dönitz's *Paukenschlag* campaign beginning in January 1942 gave new urgency to the Army-Navy control debate. A series of correspondences and requests were bandied between the commanders of the Navy and Army Air Force. Admiral John Tower of the Navy Department's Bureau of Aeronautics opened the series with a request to Army Air Force commander General Harold "Hap" Arnold. Admiral Towers requested that the Navy be allowed to have 200 B-24 "Liberators" and 900 assorted B-25 "Mitchells" and B-26 "Marauders" from the Army when production made them available.⁹⁰ General Arnold paid no attention to the request.⁹¹

Admiral King placed the next request to General Arnold for the same aircraft with the number of "Liberators" increased by 200.⁹² General Arnold turned the Navy down again, stating that long range coastal defense by aircraft was the jurisdiction of the Army Air Corps. The exchange continued into June of 1942 when finally the Army and Navy feud came to a head.

When Arnold agreed to send a group of B-24s to Iceland at the request of King, Arnold did so with the order to the group's commander that they be

⁸⁹ Ibid., p. 102.

⁹⁰ Ibid.

⁹¹ Ibid.

⁹² Ibid.

used only in offensive ASW operations and not to escort convoy. When King was informed, he stated that these aircraft were useless to the Navy unless employed in convoy escort duty.⁹³ Therein lay the fundamental difference between the operational philosophies of the Army and Navy. Where the Army felt the need to actively seek out and destroy U-boats wherever they might be found, the Navy felt that the best chance for long range aircraft to locate U-boats was to hunt them during convoy escort duty. The U-boats were naturally drawn to convoys, which allowed aircraft to concentrate their search efforts and produce better results while keeping convoys protected.⁹⁴

The debate ended with a “horse trade”⁹⁵ between the two services. General Arnold, Secretary of War Henry L. Stimson, and Admiral King agreed that the Army would turn over ASW equipped Liberators to the Navy, and that the Navy would replace these aircraft for the Army from the Navy account. The switch took time to be fully organized, and the Navy received the final delivery of B-24 Liberators, redesignated as PB4Y Liberators, in November 1943.⁹⁶

That this debate occurred at all was unfortunate. While the arguing persisted, a uniform and efficient employment of long range air assets was

⁹³ Morison, *History of U.S. Naval Operations in World War II*, Vol. X, p. 28.

⁹⁴ Ibid., pp. 28-29.

⁹⁵ Ibid., p. 29.

⁹⁶ Ibid.

delayed, and lives were perhaps lost as a result. In retrospect, it appears that King's and the Navy's philosophy on the matter was sound.⁹⁷

Turning the Tide

As discussed in Chapter Four, aircraft from escort aircraft carriers, played a key role in turning the tide of the Atlantic antisubmarine campaign. Long range land-based aircraft could extend their reach far out along the Atlantic sea lines of communication, but could only go so far. In the mid-Atlantic Allied convoy routes, aircraft operating from CVEs made the difference. When the CVE was introduced to the Battle of the Atlantic as a regular combatant, as opposed to an occasional participant, the Atlantic air umbrella was completed.

The CVE operated in one of two ways. CVEs were attached to a convoy as part of the convoy's escort protection, attacking U-boats that tried to approach the convoy. CVEs also operated as members of small independent groups called hunter-killer groups dedicated to search and destruction of Germany's U-boats. In both capacities the CVEs proved their effectiveness.

The first American CVE, U.S.S. *Bogue*, came into the Battle of the Atlantic in April 1943. After a short period without producing any results, the *Bogue* finally drew its first blood in May. While escorting convoy ON-184, *Bogue's* TBF Avenger torpedo/bomber aircraft made repeated contacts with

⁹⁷ Ibid., p. 31.

numerous U-boats attempting to approach her convoy. Only one U-boat was sunk, but other U-boats were damaged or driven off in actions with *Bogue's* Avengers. However, the significance of the convoy ON-184 was that in the midst of a U-boat *blitz*, not a single vessel was molested during its trans-Atlantic passage.⁹⁸

In May 1943, thirty-eight U-boats were sunk, six by Americans, signaling the beginning of the decline of Dönitz's U-boat war. It became apparent to Dönitz by May 24, 1943 that the Atlantic campaign was impossible. On May 24, 1943 Dönitz declared the Battle of the Atlantic lost.⁹⁹ In his memoirs, he marked this realization:

...the situation had changed. Radar, and particularly radar location by aircraft, had to all practical purposes robbed the U-boats of their power to fight on the surface. Wolf-pack operations against convoys in the North Atlantic, the main theatre of operations and at the same time the theatre in which air cover was strongest, were no longer possible.¹⁰⁰

At the end of May 1943 Dönitz withdrew his U-boats from the North Atlantic convoy route with the following signal to his fleet: "The situation in the North Atlantic now forces a temporary shift of operations less endangered

⁹⁸ Ibid., pp. 79-81.

⁹⁹ John Terraine, *The U-Boat Wars: 1916-1945*, p. 608.

¹⁰⁰ Dönitz, *Memoirs*, p. 341.

by aircraft.”¹⁰¹

Dönitz assembled and sent out his next offensive force as *Operation Trutz* to the central Atlantic convoy routes. It was in those routes that Dönitz believed his U-boats could operate “less endangered by aircraft.” He found the situation quite the opposite. His newest offensive placed seventeen U-boats of *Operation Trutz* in the shipping lanes off the Azores to hunt easier prey. What these boats met with was an intense concentration of American CVEs in hunter-killer groups operating with shore-based guidance from the Tenth Fleet operation’s centers. *Bogue* smashed *Trutz*, claiming five of the seventeen U-boats.¹⁰² For the first time in the war, a wolfpack was unable to sink a single merchant ship of a targeted convoy. What is more important, in that month of June 1943 the CVE *Bogue* and her aircraft, working in concert with the Tenth Fleet, had prevented the *Trutz* U-boats from even coming close enough to sight a convoy. This was clear evidence of Allied victory over the U-boats.

The CVEs *Core*, *Card*, *Santee*, and again *Bogue*, continued to rack up the score through the rest of the summer of 1943. July saw the loss of thirty-seven U-boats in the Atlantic, twenty-five of them destroyed by American

¹⁰¹ Farago, *The Tenth Fleet*, p. 192.

¹⁰² *Ibid.*, pp. 195-96.

forces.¹⁰³ In August 1943 the U.S. Navy claimed ten U-boats killed, with one more added in September.¹⁰⁴ Between October and December the Navy would tally another eighteen of the fifty-three U-boats sent to the bottom.¹⁰⁵ The year's total was seventy-five American U-boat kills of the 237 destroyed, a striking contrast to the sixteen America could claim for all of 1942.¹⁰⁶

The German U-boat was driven under, beaten back, or destroyed during of the rest of the war. Although the U-boat production was up and the number of U-boats remained fairly high, they were unable to achieve much success. CVEs, aircraft, and radar forced the U-boats on operational cruises generally to remain submerged. Even the advent of a German snorkel device, which allowed the U-boats to operate at higher speeds and remain submerged, could not help Germany to rebound in the Battle of the Atlantic. That small deadly space in the mid-Atlantic, previously out of reach of land-based long-range ASW aircraft, was permanently closed by the CVE and its aircraft. This factor and the coordination of operations by the Tenth Fleet ashore gave a one-two punch that had Dönitz's U-boats reeling. The decline of U-boat effectiveness can be viewed on the charts on pages 80 and 81, and Table #5 on page 82.

¹⁰³ Ibid., p. 201.

¹⁰⁴ Ibid., p. 203.

¹⁰⁵ Ibid.

¹⁰⁶ Ibid.

Defeat of the U-boats

Although Dönitz knew the Battle of the Atlantic was lost and each sortie thereafter faced a grim prospect of success and survival, he continued operations to the last. Why? Dönitz's mission since the beginning of the war had been to destroy the maximum number of Allied ships possible in order to thwart the Allies before they could mass the matériel and men required to reclaim Europe. When the tide turned in 1943, this mission was no longer possible. The U-boat campaign was then a mission of sea denial -- to prevent the enemy from operating freely in the vital sea lines of communication it required. It was for this reason Dönitz kept a fleet of U boats at sea to harass the Allies after 1943.

In his book *Fleet Tactics*, Captain Wayne Hughes, Jr. USN (ret.) summed up the impact of the submarine in naval conflict by stating: "Submarines could deny but not exploit sea control. Submarines were spoilers . . ." ¹⁰⁷ The efforts of the U-boat forces Dönitz employed during the Battle of the Atlantic amounted to a massive guerrilla campaign against a stronger force. However, when Dönitz's campaign against Allied shipping collapsed, putting boats to sea still had value for the Germans. Hughes further asserted, ". . . the U-boat campaign was a success, at least in terms of

¹⁰⁷ Wayne P. Hughes, Jr., *Fleet Tactics: Theory and Practice* (Annapolis: Naval Instituted Press, 1986), p. 133.

ALLIED MERCHANT SHIP LOSSES BY U-BOAT ATTACK¹⁰⁸
May 22, 1943 - December 31, 1943

¹⁰⁸ Morison, *History of U.S. Naval Operations in World War II*, Vol. X, p. 136.

ALLIED MERCHANT SHIP LOSSES BY U-BOAT ATTACK¹⁰⁹ 1944 - 1945

¹⁰⁹ Ibid., p. 294.

Table #5
ALLIED MERCHANT SHIP LOSSES BY U-BOAT ATTACK¹¹⁰
U-BOAT LOSSES BY ALLIED ASW
(All Atlantic and Arctic Zones)
December 1943 - May 1945

4 or fewer Allied Merchant sinkings not recorded on this chart for any Atlantic/Arctic zone

the cost of the response required from the Allies.”¹¹¹

Nevertheless, the Allies reclaimed control of the sea and delivered the tools of victory to the front in Europe. The effort expended by both the

¹¹⁰ Morison, *History of U.S. Naval Operations in World War II*, Vol. I, p. 415, and Vol. X, p. 336.

¹¹¹ Hughes, *Fleet Tactics*, p. 299.

Americans and British to this end was Herculean. The defeat of the U-boats was complete and the sacrifice of those who made that completion is difficult to comprehend. Stephen Roskill explained the Allied victory well in his volumes of *The War at Sea*:

. . . the battle [of the Atlantic] never again reached the same pitch of intensity, nor hung so delicately in the balance, as during the spring of 1943. It is therefore fair to claim that the victory here recounted marked one of the decisive stages of the war.... After forty-five months of unceasing battle of a more exacting and arduous nature than posterity may easily realize, our convoy escorts and aircraft had won the triumph they had so richly merited.¹¹²

¹¹² Stephen W. Roskill, *The War at Sea: The Offensive*, Volume II (London: H. M. Stationery Office, 1955), p. 377.

Chapter VI

The Arsenal of Democracy and the Atlantic War

The role of the United States in the Battle of the Atlantic was a key factor in the defeat of Admiral Dönitz's U-boats and, by extension, the defeat of Germany. From September 1939 to December 1941, during the period of American neutrality, and then from December 1941 until May 1945, when the United States was at war, the contributions made by the United States and its Navy were titanic. These contributions would shored up Britain in some of its darkest hours before America entered the conflagration. Once in the fight, America delivered the vast resources its of matériel, men, and machines to produce a final Allied victory.

Before the United States entered the war, it established "neutrality patrols" to protect the western hemispheric zones. These zones for western hemispheric defense stretched far beyond the traditional concept of territorial waters to provide a safe haven for British merchant vessels (see chart on page 86). These merchant vessels were bound for England laden with food, oil, aviation fuel, rubber, weapons, munitions, and the other matériel

1939 - 1941

¹¹³ Arthur Link, William Link, and William Catton, *American Epoch: A History of the United States Since 1900*, Volume I: 1900-1945 (New York: Alfred A. Knopf, 1987), p. 325.

Britain needed for survival during its lone stand against the Third Reich.

While engaged in these patrols, U.S. Navy destroyers were torpedoed, damaged, and/or sunk by U-boats which were trying to sever Britain's lifeline.

When Britain was at the nadir of its struggle against Dönitz's wolfpacks in 1940, the United States turned over fifty American destroyers and other ships to bolster Britain's thinning ASW force. In 1941 when Britain's cash reserves were nearing exhaustion, President Roosevelt pushed the Lend-lease Act through Congress to provide America with a way to bend its own neutrality, and to provide Britain with the means to borrow and lease unlimited U.S. surplus production.

It was in the years between 1939 and 1941 that President Roosevelt and Prime Minister Churchill developed close relations and the strategic visions for the rest of the war. Their meeting at Placentia Bay, Newfoundland on August 10, 1941 created plans for defeating the Nazis and unveiled the Atlantic Charter. When America officially entered the war on December 8, 1941, a tired Britain was joined by an energetic and eager American nation. Although the first half of 1942 bore witness to incredible Allied defeats across the globe, the fortitude, courage, and tenacity of the Allies was indomitable. That indomitability was fueled by the seemingly boundless resources that American industry could produce. The United

States truly assumed the role of the “arsenal of democracy.” The products of that arsenal led to the ultimate demise of the Axis. American troops and American-produced matériel deployed to the European theater allowed the Allied invasion to liberate France, and then push on into Germany. Thus, the Allied victory would not have been possible without 1.) the massive infusions of American industrial production, and 2.) America’s Navy to keep those matériels safe in their journey across the Atlantic.

Churchill was constantly reassured by Roosevelt that America would be able to meet the production commitments for new merchant vessel construction to replenish both America’s and Britain’s merchant marines. This was the subject of utmost concern to Churchill and the subject of several correspondences between the President and the Prime Minister (see Appendix). In the darkest days of the U-boat blitz against America’s eastern seaboard, meeting those production quotas may have seemed impossible given the tremendous losses suffered in Allied shipping. However, the production capacity of the United States continually exceeded all estimates and overwhelmed the Axis (see Table #6 on page 88). Stephen Roskill emphasized:

Had this victory of production not been won, the sacrifices of the escorting ships and aircraft, and of the merchant seamen, were all bound to have been in vain. As long as the enemy was

sinking more ships than we were building, the final victory would remain in the balance—as the Germany very well realized.¹¹⁴

Table #6
AMERICAN AND BRITISH MERCHANT SHIP LOSSES AND
AMERICAN AND BRITISH MERCHANT SHIP CONSTRUCTION¹¹⁵
1939-1945

Tonnage rounded to nearest thousand

Yet, for all its industrial production, the United States had to overcome huge setbacks to realize its full potential. The winter of 1941 and 1942 were

¹¹⁴ Roskill, *The War at Sea*, Volume II, p. 379.

¹¹⁵ Herman S. Kinder, and Werner Hilgemann, *The Anchor World Atlas of World History*, Volume II (Garden City, NY: Anchor Press/Doubleday, 1978), p. 200.

the bleakest times for the United States during the war. The devastating military and psychological blow to the country and the Navy as a result of the Pearl Harbor attack was only the beginning of the tumult to follow. From every part of the globe the Allies seemed in full retreat from the Axis. In the Atlantic, the inadequacies of prewar preparation for the U-boat threat allowed massive losses to Dönitz's *Paukenschlag* campaign. America had to stem the tide of the Atlantic war and gain the initiative.

It was perhaps fortunate for the U.S. Navy that the leadership of Admiral Earnest J. King was able to “shake” the Navy from its state of shock and set the wheels of recovery on track. King did this by assembling an organizational force under the Tenth Fleet of the U.S. Navy to facilitate the destruction of Hitler's undersea menace. The Tenth Fleet could centralize all of the information from every Atlantic area into its oversight command of all ASW forces in the Atlantic. The information was then processed and dispatched to the units of the U.S. Atlantic Fleet closest to the scene for action.

As the mid-year of 1943 approached, the Tenth Fleet, equipped with the newest of ASW tools and escort aircraft carriers, was in place to turn the tables on Dönitz's U-boats. It was in this year that CVEs and land-based aircraft would prove their value as the most effective weapons in the

antisubmarine campaign. Historians of the war have made the point summed here by Wayne Hughes:

... U-boats forced under water by aircraft (far enough away from the convoys) were ineffective. In the middle of 1943 it was aircraft that broke the back of the peak effort by U-boats, when on a given day 104 of them lurked the seas. The Allies won the Battle of Atlantic by a combination of offensive air patrols around the Bay of Biscay and defensive air patrols around convoys. Aircraft with radar first slowed U-boats in transit and then drastically curtailed their maneuvers in the vicinity of the convoys.¹¹⁶

By the end of 1943, Dönitz could only harass the Allies. The U-boats had been driven below and away from the convoys that delivered the Allied reclamation of the European continent.

In the final analysis, the combined effort of the Allies produced the victory over the Nazi's U-boat fleet. However the role played by the United States Navy and the political, moral, and matériel support offered to the Alliance was paramount in that final victory in the Battle of the Atlantic and the entire Atlantic war.

The sacrifice and dedication those who fought in this desperate struggle is difficult to quantify. The conditions at sea and during combat in the Atlantic campaign were harsh and trying. To the men and women who served

¹¹⁶ Hughes, *Fleet Tactics*, p. 135.

both ashore and at sea to make the victory in the Atlantic War happen, this nation owes a great debt and its eternal gratitude.

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Appendix

Below are a few letters between President Roosevelt and Prime Minister Churchill discussing concerns and information. The letters address both nation's ability to keep up with losses of merchant vessels inflicted by U-boats through new construction. These letters were too cumbersome to be placed in the body of the text, but provide insight into the recurring issue of losses and America's capacity to overcome those losses through the sheer power of its industrial might.

CHURCHILL TO ROOSEVELT

October 31, 1942

My dear Mr. President,

...First of all, I put the U-boat menace. This, I am sure, is our worst danger. It is horrible to me that we should be budgeting jointly for a balance of shipping on the basis of 700,000 tons a month loss. True, it is not yet as bad as that. But the spectacle of all these splendid ships being built, sent to sea crammed with priceless food and munitions, and being sunk--three or four every day--torments me day and night. Not only does this attack cripple our war energies and threaten our life, but it arbitrarily limits the might of the United States coming into the struggle. The oceans, which were your shield, threaten to become your cage...

Therefore, I submit to you for your good judgment the maximum allocation of steel for merchant shipbuilding, and then out of that the maximum construction of escort vessels which engine capacity will allow. From the important measures which you have lately taken, I am sure your mind is moving in exactly the same direction.

We must ask for a fair share of the merchant shipping and of the escort vessels. All our labour and capacity is engaged in the war effort. We have had to sacrifice 100,000 tons of merchant shipbuilding in order to get more corvettes, and we cannot hope to produce more than 1,100,000 British gross tons of new merchant ships in the calendar year 1943. We have lost enormously in ships used in the common interest, and we trust to you to give up a fair and just assignment of your new vast construction to sail under our own flag...

We have been so well treated by you and in tanker tonnage, that it is with diffidence that I mention the figure of 1,000,000 tons additional, which is what we need in 1943.

Mr. President, I cannot cut the food consumption here below its present level. We need to import 27,000,000 tons for your food and war effort in 1943. More than three-quarters of our immense marine is engaged in war transport of one kind or another. We are asking for 2,500,000 dead-weight nontanker tonnage to be assigned to us from the beginning of 1943 from your new construction. Our stocks are running down with dangerous rapidity. Any further inroads upon them, except for some great emergency, would be highly improvident. These Islands are the assembly base for the war against Hitler; many of your troops will be here; and we must have a margin in case of a renewed *blitz* on the Mersey and the Clyde, or exceptional concentration of U-boats on the Atlantic routes. Rather than cut any further on the food of the people, I should be forced to reduce our general contribution to the overseas war effort...

--Always your most sincere friend,

Winston S. Churchill¹¹⁷

¹¹⁷ Francis L. Loewenheim, Harold D. Langley, and Manfred Jonas, ed., *Roosevelt and Churchill: Their Secret Wartime Correspondence* (New York: Da Capo Press, Inc., 1990), pp. 262-263.

ROOSEVELT TO CHURCHILL

November 30, 1942

I presume that we shall never satisfy ourselves as to the relative need of merchant ships versus escort vessels. In this case I believe we should try to have our cake and eat it too.

At any rate we are moving aggressively here to increase both of these programs and have give them the highest priority for matériel and machine tools.

As far as merchant shipping is concerned, we have, after reexamination of our steel plate problem and other facilities, determined to increase it to 18,800,000 dead-weight tons in 1943. I intend to raise this to 20 million tons if after reexamination by our people it should prove possible.

Of one thing I think you can be sure, that we will build in this country a minimum of 18,800,000 tons of merchant shipping of all kinds. Your offices here will keep you informed of the types of ships that are being built and, naturally, I would welcome your judgment in regard to this because it is very important that we have a proper balance between tankers, cargo vessels, and transports.

I agree that this is the time for me to reply to you concerning the very urgent requirements of the British shipping program in 1943.

I have had the 27 million ton figure of imports to the British Isles examined rather hurriedly here by our own people and they are satisfied that this figure is substantially correct.

Our joint war effort requires that this pipeline of matériel and food to Britain be maintained, that the moving of this tonnage at reasonably even levels is a matter of primary importance. I recognize it as such.

I am well aware of the concern with which your Government faces the serious net losses in tonnage to your merchant fleet. It is a new loss which persists and I think we must face the fact that it may well continue throughout all of next year. I, therefore, want to give you the assurance that from our expanding fleet you may depend on the tonnage necessary to meet your import program.

Accordingly, I am instructing our Shipping Administration to allocate through the machinery of the Combined Shipping Adjustment Board enough dry cargo tonnage out of the surplus shipbuilding to meet your imports, the supply and maintenance of your armed forces, and other services essential to maintaining the war effort of the British Commonwealth, to the extent that they cannot be transported by the fleet under British control.

I have been given to understand by our combined shipping people that an average of nearly 300,000 tons each month of carrying capacity will have to be used to supplement the tonnage already engaged on behalf of the British war effort. Because of the commitments already made, the allocation of ships during the next three months must of necessity be less than the average for the whole period.

We may hope for a substantial reduction in this if we can make our way through the Mediterranean. Furthermore, I think that you and I should insist that every possible economy in exercised by our shipping and military authorities.

You will, I am sure, agree that emergencies may develop which may require me to divert for our own military purposes tonnage which it is not contemplated will be utilized for imports to Great Britain. There will, no doubt, be other cases in which we shall with jointly to confer relative to vital military uses of merchant tonnage.

I want you to know that any important diversions of tonnage will be make only with my personal approval, because I am fully cognizant of the fact that your Government may feel that the decisions might be made to divert tonnage in contravention of the policy which I am laying down in this letter.

The allocation of the tonnage month by month must be worked out by the Combined Shipping Adjustment Board. And hence I confine myself to the above statement of policy. I wish to give you the definite assurance, subject to the qualifications I have indicated, that your requirements will be met...¹¹⁸

¹¹⁸ Ibid., pp. 287-289.

CHURCHILL TO ROOSEVELT

August 11, 1943

Following is draft referred to in my immediately preceding telegram. Begins:

"During July the U-boats have obtained very poor results for their widespread effort against Allied shipping. The steady flow of transatlantic supplies on the greatest scale has continued unmolested, and such sinkings as have taken place in the distant areas have had but an insignificant effect of the conduct of the war by the Allies. In fact, July is probably our most successful month because the imports have been high, shipping losses moderate, and U-boat sinkings heavy.

"Before the descent upon Sicily an armada of warships, troop transports, supply ships, and landing craft proceeded through Atlantic and Mediterranean waters with scarcely any interference from U-boats. Large reinforcements have also been landed on that island. Over 2,500 vessels were involved in these operations and the losses are only about 80,000 tons. On the other hand, the U-boats which attempted to interfere with these operations suffered severe losses.

"Our offensive operations against Axis submarines continue to progress most favourably in all areas. And during May, June, and July we have sunk at sea a total of over 90 U-boats, which represents an average loss of nearly 1 U-boat a day over the period.

"The decline in the effectiveness of the U-boats is illustrated by the following figures. In the first 6 months of 1943 the number of ships sunk per U-boat operating was only half that in the last 6 months of 1942 and only a quarter that in the first half of 1942.

"The tonnage of shipping in the service of the United Nations continues to show a considerable net increase. During 1943 new ships completed by the Allies exceed all sinkings from all causes upwards of 3,000,000 tons.

"In spite of this very favourable progress in the battle against the U-boats, it must be remembered that the enemy still has large U-boat reserves, completed and under construction. It is necessary therefore to prepare for intensification of the battle both at sea and in the shipyards and to use our shipping with utmost economy to strengthen and speed the general offensive of the United Nations. Continued success can only be expected if there is no relaxation of effort."¹¹⁹

¹¹⁹ Ibid., pp. 361-362.

IMAGE EVALUATION TEST TARGET (QA-3)

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