

## Introduction

On May 12, 1938, three B-17 “Flying Fortress” heavy bombers flew 610 miles out to sea and intercepted the Italian liner *Rex*. A young U.S. Army Air Corps officer named Curtis LeMay was a “navigator” in one of the bombers exercising Army Air Corps defense of the Eastern Coast of the



Figure 1. <http://www.nationalmuseum.af.mil/factsheets>

United States of America.<sup>1</sup> The successful interception appeared to demonstrate that the future of warfare lay in the third dimension. The ghost of Billy Mitchell certainly smiled.<sup>2</sup> Yet, despite the apparent success of the exercise, it is interesting that the Army Air Corps demonstrated its capabilities by intercepting a ship at sea, as opposed to the terrestrial targets of its nascent strategic bombing doctrine. The use of land-based aircraft in strategic attacks into enemy territory represented the core of the Army’s Air Corps doctrine. At stake was the prospect of an air force independent from the Army and the Navy. During the Battle of the Atlantic however, the U.S. Army Air Force extended its doctrine to include the counter German U-boat and the protection of vital shipping lanes to demonstrate the decisiveness of independent and offensive air operations in a maritime war.

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<sup>1</sup> John T. Correll, “Rendezvous with the Rex,” *Air Force Magazine*, December 2008, 54-55.

<sup>2</sup> Robert T. Finney, *History of the Air Corps Tactical School*, (Research Studies Institute, USAF Historical Division, Air University 1955), 4. As the highest ranking Army Aviation officer in Europe during World War I, Mitchell was a strong advocate of “mass employment of military aviation.” Mitchell had significant influence on the development of air power as a military asset for the United States.

Events in Europe after 1939 had a great influence of the trajectory of air-power doctrine and the role aviators would actually play in the war. Germany's invasion of Poland in September 1939 engulfed Europe in the world's second war of the twentieth century. The subsequent fall of France left Great Britain virtually alone against Hitler. To continue the fight required resources, which had to be delivered by ship across the Atlantic Ocean from the United States.<sup>3</sup>

In response to United States' assistance to Great Britain, German U-Boats slowly moved their operations westward across the Atlantic. On September 4<sup>th</sup>, 1941, while conducting convoy escort operations near Iceland, U.S. Navy destroyer *Greer* received a report from a British air patrol of a German U-boat submerging less than 10 miles off its bow. The British aircraft dropped depth charges in the vicinity of the submarine. The captain of the U-boat responded by firing a torpedo at the *Greer*, missing, but causing the destroyer to respond with a volley of depth charges. The incident passed without serious consequences to either the U-boat or the *Greer*, but it represented a significant threat to United States' neutrality. President Roosevelt declared in response that, "From now on if German or Italian vessels of war enter these waters they do so at their own peril."<sup>4</sup>

The U.S. maintained its pseudo-neutrality until Japanese planes attacked the naval base at Pearl Harbor on December 7, 1941. Because of the alliance between Japan and Germany, Germany declared war on the United States. On December 18<sup>th</sup>, Admiral Dönitz sent five U-boats to the U.S. east coast in what became known as Operation Drumbeat. The appearance of U-Boats off the coast of the United States led to the establishment of The North Atlantic Naval Coastal Frontier (NANCF). Made up of

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<sup>3</sup> Timothy J. Runyan, Jan M. Copes eds, *To Die Gallantly: The Battle of the Atlantic* (Boulder: Westview Press 1994), xvii.

<sup>4</sup> Donald Macintyre, *The Battle of the Atlantic* (New York: The Macmillan Company 1961), 135.

mainly forces from the Navy and Army, this command was responsible for the defense of the North Atlantic Naval Coastal Frontier, the protection and routing of shipping, the support of the United States Fleet, and the support of the Army and associated forces within the frontier.<sup>5</sup> The Army Air Corps' role consisted of defending along and up to the terrestrial shore, while the Navy patrolled the coastal waters in search of U-Boats, ship-launched aircraft, and other ship-based activities which threatened the security of the U.S. border. But, Army Air Corps' bombers began to venture further out over the water as early as December 8<sup>th</sup>, 1941, with Navy objecting based on the issue of responsibility and control of their own air forces.<sup>6</sup> The Army Air Corps' role in antisubmarine warfare (ASW) would only continue to grow throughout 1942 and into 1943, to the extent that the Army established its own antisubmarine command, making its role in ASW more concrete.

The employment of Army Air Corps bombers in ASW appeared to signify a dramatic shift from what was considered to be its *raison d'être* of strategic bombardment. This doctrinal shift is not reflected to a great degree in histories on the Battle of the Atlantic and contribution of air power in World War II. While there is no lack of scholarship on the role of air power in World War II, as well as histories on the Battle of the Atlantic, the literature has a tendency to emphasize the maritime dimension of the battle. They seem, though, to give inadequate attention to the contributions of air power to the Battle of the Atlantic. Timothy Runyan and Jan Cope's anthology *To Die Gallantly*, for example, contains chapters dedicated to a wide variety of issues on the

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<sup>5</sup> Eastern Sea Frontier War Diary, December 1941, "Headquarters, Commander North Atlantic Naval Coastal Frontier and the General Task," Chapter 1, 5.

<sup>6</sup> Wesley Craven and James Cate, "Plans and Early Operations: January 1939 to August 1942, *The Army Air Forces in World War II Vol 1*, (Chicago: The University of Chicago Press 1948), 520 -521.

Battle of the Atlantic, but not one makes any mention of the USAAF and its contribution to the fight against the U-boats. The Office of Air Force History *The Army Air Forces in World War II* dedicated only one chapter to the Army's contributions to ASW. This chapter represents the limited scholarship, as there are few works entirely dedicated to the AAF in the Battle of the Atlantic; Max Schoenfeld's *Stalking the U-boat: USAAF Offensive Antisubmarine Operations in World War II* being one of them. In his book, Schoenfeld offers a thorough operational history of USAAF antisubmarine operations during the war. He follows the 479<sup>th</sup> and 480<sup>th</sup> USAAF Antisubmarine Groups as they transferred from initial operations off the eastern coast of the United States to England, and then later to Northern Africa. Schoenfeld's research provides one of the few detailed analysis of antisubmarine operations during the Battle of the Atlantic. But Schoenfeld ignores any explanation for the Army's willingness to forgo its long held views on strategic bombardment to embark on a mission it had not planned for.

This essay offers a more extensive understanding of the AAF's contribution to the Battle of the Atlantic from a doctrinal perspective. Prior to the United States' entry into World War II, the U.S. Army Air Corps had dedicated its intellectual energies to the development of a strategic air bombardment doctrine. The goal of Air Corps' leaders was to conduct "high altitude, daylight, precision bombing" against land-based targets within Germany. The successful demonstration of the decisiveness of independent air power, they believed, would eventually justify an independent air force. Army aviators consequently had no plans to deal with U-boats. It was not considered an Army Air Corps' role, nor one that Air Corps leaders such as Major General Henry Arnold (Chief of the Air Corps) and Major General Westside Larson (Commanding General of the

Army Air Force Antisubmarine Command), wanted. It is interesting, then, that by October 1942 the Army Air Force established the Army Air Force Antisubmarine Command (AAFAC), against the German U-boats.<sup>7</sup>

The AAF subsequently became involved in a mission that, doctrinally, it was not prepared for, yet dedicated nine months conducting ASW operations. This begs the question of why? Dr. John Nagl, commenting on the reasons that compel organizations to favor certain policies over others, argues that “Organizations favor policies that will increase the importance of the organization, fight for the capabilities they view as essential, and demonstrate comparative indifference to functions not viewed as essential.”<sup>8</sup> Though the AAF appeared to compromise its vision, the situation in December of 1942 required that the AAF take responsibility for countering U-boat operations off the east coast of the United States. The AAF suspended its strategic bombardment campaign from December 1942 to August 1943 in order to demonstrate that independent and offensive air power could be decisive in a maritime war. Operational success, Army aviators surmised, would help to validate the need for an independent U.S. Air Force until the formal terrestrial bombing campaign could begin in earnest. Yet the Army’s commitment to the U-boat war proved short lived. By August 1943 Army aviators left the ASW arena, leaving the U.S. Navy in sole command of the

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<sup>7</sup> Circular Number 59, March 2, 1942, “War Department Reorganization,” 1, *Anti-submarine operations in the Battle of the Atlantic* [microform] Reel A4070. It must be understood that the established air component of the United States Army went through a series of organizational name changes. In the late 1930’s the air component was referred to as the U.S. Army Air Corps, but then on March 2, 1942 the War Department published a document (Circular 59) authorizing, by order of the President of the United States of America, a reorganization of War Department and Army such that it will provide, “a Ground Force, an Air Force, and a Service Supply Command.” This organization became effective on March 9, 1942. From this point on the Army Air Corps became known as the Army Air Force (AAF) I will the term “Army Air Force” throughout the remainder of my paper.

<sup>8</sup> John A. Nagl, *Learning to Eat Soup with a Knife*, (Chicago: University of Chicago Press, 2005), 5.

Battle of the Atlantic. The inherently defensive and cooperative nature of the Battle of the Atlantic stymied the Army's emphasis on independent and offensive operations.

### **The Birth of Air Power and Strategic Bombardment**

The employment of aircraft in antisubmarine operations was still a relatively new phenomenon at the outset of World War I. Though employed by the United States during the war, many different technical problems persisted after 1918. William N. Still concludes that the problems associated with air power were more technical in nature, but as a result of these problems, air power contributed little to the United States military effectiveness during the war.<sup>9</sup> The British, on the other hand, demonstrated that air power, specifically against German U-Boats, had the potential for being a significant force multiplier. John J. Abbatiello writes that, "Despite air power's limited achievement in destroying U-boats outright, aircraft made an important contribution to deterring U-boat commanders from operating in the vicinity of merchant vessels."<sup>10</sup> Once spotted by patrolling aircraft, U-boats would submerge, giving the merchant vessels the ability to escape. Abbatiello's link between air power and U-boat deterrence identifies a significant issue when examining how the United States Army Air Force defined its role in the fight against the U-boat three decades later. As a second war with Germany loomed on the horizon in the 1930's, incorporating air power into military strategy became a priority of the Air Corps Tactical School. The emphasis lay in strategic bombardment doctrine. But

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<sup>9</sup> William N. Still Jr., *Crisis at Sea: The United States Navy in European Waters in World War I* (Florida: University Press of Florida 2006), 461-462.

<sup>10</sup> John J. Abbatiello, *Anti-Submarine Warfare in World War I: British Naval Aviation and the defeat of the U-boats*, (New York: Routledge, 2006), 3.

when war came in 1941, the use of AAF bombers in ASW operations, and the need for ASW doctrine, took the AAF by surprise.

That Army doctrinal development since the First World War failed to include a maritime component is not surprising. The official history of the USAAF Antisubmarine Command notes that “On December 7, 1941, when we suddenly found ourselves in a state of war, we were rudely awakened to the fact that we had no plan for providing our operation air forces in defense of shipping or to combat the submarine menace.”<sup>11</sup> The reality was that the AAF was unprepared to deal with U-boats, because up until 1941 AAF doctrine was grounded on strategic bombardment.<sup>12</sup> The Army Air Corps Tactical School (ACTS) represented the heart and soul of not only the development of air doctrine.<sup>13</sup> Within its walls, some of the greatest AAF thinkers worked to understand air power and define its role in war. Major Harold George, the director of the Department of Air Strategy and Tactics posed the following problem to ACTS students in 1935:

Has the advent of air power brought into existence a method for the prosecution of war which has revolutionized that art and given to air forces a strategical objective of their own independent of either land or naval forces the attainment of which might, in itself, accomplish the purpose of war; or has air power merely added another weapon to the waging of war which makes it in fact only an auxiliary of the traditional military forces?<sup>14</sup>

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<sup>11</sup> History of Army Air Forces Antisubmarine Command, Date Unknown, “History and Organization of the Army Air Forces Anti-submarine Command,” 1, *Anti-submarine operations in the Battle of the Atlantic* [microform] Reel A4057.

<sup>12</sup> History of the Eighth Air Force, October 1944, “Origins of the Eighth Air Force: Plans, Organization, Doctrines to 17 August 1942,” 95, *Anti-submarine operations in the Battle of the Atlantic* [microform] Reel K1012. “The regard for precision bombing which was the basic principal of AAF doctrine went back to the days of Billy Mitchell...”

<sup>13</sup> Finney, *History of the Air Corps Tactical School*, 58

<sup>14</sup> *IBID.*, 59.

George's questions struck at the core of the organization and pushed aviators to determine the purpose of air power and the role it would play in war. Thinkers within the Air Corps Tactical School answered that air power offered a tool by which the AAF might, "in itself, accomplish the purpose of war..." The tool through which this role would be achieved was strategic bombardment, a method of waging war considered since the beginning of the schools creation.<sup>15</sup> Strategic bombardment targeted infrastructure such as communication, supply lines, and other important aspects of the enemy's war fighting capacity. Attacking these targets, it was believed, would render the enemy incapable of sustaining a war. Equally fundamental to this doctrine was the idea that only an independent air force could cripple the enemy's ability to wage war.

The document which placed theory into a realistic operational setting was called Air War Plans Division 1 (AWPD-1).<sup>16</sup> Resulting from a study to identify the necessary air forces required to defeat Germany, AWPD-1 emphasized the use of precision bombings, during the day, over land targets in Germany, with the primary targets being "the electrical power grid, the transportation system, and the oil and petroleum industries."<sup>17</sup> AAF leaders believed that if AWPD-1 was successful, then a land invasion of Europe might be unnecessary.<sup>18</sup> The allure of German surrender, and obviating the need for a land invasion of Europe, would provide unequivocal justification for an independent air force. To Army aviators, strategic bombardment held the potential to

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<sup>15</sup> IBID., 61.

<sup>16</sup> Origins of the Eighth Air Force: Plans, Organization, Doctrines to 17 August 1942, 98.

<sup>17</sup> IBID., 98

Finney, 68. By 1935, The Air Corps Tactical School considered the doctrine of high altitude, daylight, precision bombing to be the core of its curriculum.

<sup>18</sup> David E. Johnson, *Fast Tanks and Heavy Bombers: Innovation in the U.S. Army 1917-1945*, (Ithaca: Cornell University Press 1998), 171.

achieve just that. As a result, AWPD-1 became central to AAF strategic bombardment doctrine.

In September 1939 Germany invaded Poland and triggered the second war in Europe. With the fall of France in 1940, Great Britain became the lone power against Germany. Werner Rahn writes that, “From the experience of the First World War, the German Naval Staff knew that the economic link between Great Britain and the North American continent was the lifeblood of the island kingdom.”<sup>19</sup> German naval leaders understood this critical weakness of Great Britain. But there were also significant risks, the greatest being the United States’ entry into the war if Germany interfered too much.<sup>20</sup> Great Britain’s dependence on supplies would become one of the most significant influences into how the role of air power was defined during the Battle of the Atlantic, particularly when German U-boats arrived off the east coast of the United States.

Though neutral, the United States made plans to strengthen its coastal defense. In 1935 the U.S. military issued the “Joint Action of the Army and Navy (FTP-155),” which laid the theoretical foundation for coordination between the Army and the Navy on coastal frontier defense (refer to Figure 2 for chart of Eastern Sea Frontier Boundaries).<sup>21</sup> FTP-155 required that the services work together to organize the in-coastal defense forces in such a manner to effectively protect the eastern seaboard. Yet, while the document made defense a joint endeavor, it made a clear distinction on how the individual services would use their weapons:

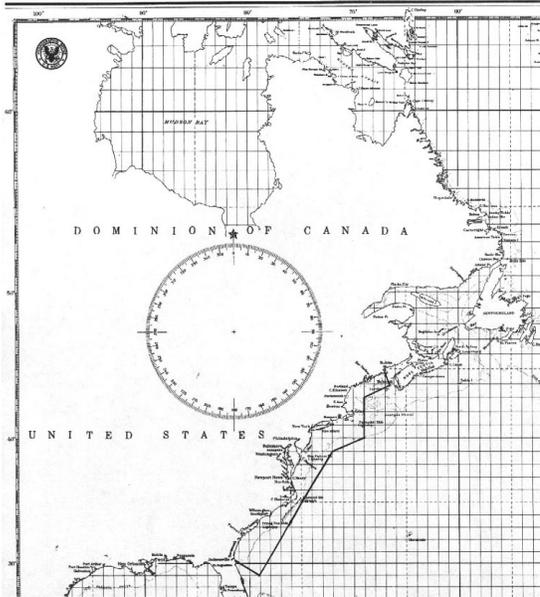
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<sup>19</sup> Werner Rahn, *The Atlantic in the Strategic Perspective of Hitler and Roosevelt, 1940-1941*, eds. Timothy J. Runyan and Jan M. Copes, “To Die Gallantly: The Battle of the Atlantic,” (Colorado: Westview Press, 1994) , 4.

<sup>20</sup> IBID..

<sup>21</sup> History of the Battle of the Atlantic, Date Unknown, “Offensive vs. Defensive Concepts of Antisubmarine Warfare, 1, *Anti-submarine operations in the Battle of the Atlantic* [microform] Reel A4057.

According to FTP-155, the Navy is to protect the air over the water and the Army is to protect the air over the land. The Navy is to engage in only such over-land flight as is incidental to the protection of the sea; and the Army is to engage in only such over-water flight as is incidental to the protection of the land.<sup>22</sup>



**Figure 2 U-boat Archive: Eastern Sea Frontier War Diary, “Frontier Boundaries”**

The Army and its long range bombers were limited to the terrestrial borders of the United States, while the Navy was responsible for protecting the United States from seaborne attacks. The importance of FTP-155 lay in the clear division of responsibility between the Army and the Navy, and it is important to note this division reflected the neutral and peaceful

environment that existed in the United States in 1935. U.S. political leaders conflated seas with security, but this feeling was to be short lived.

Within a month of the Pearl Harbor attack, Germany and Italy declared war against the United States. Not long after, German U-boats appeared off the eastern seaboard to feast on merchant shipping. During the initial attacks, one U-boat in particular sank eight ships for a total of 53,360 tons.<sup>23</sup> Sinkings along the coast of the United States continued until May 1942.<sup>24</sup> Operation Drumbeat reflected Flag Officer Vice Admiral Dönitz’s strategy of “tonnage warfare,” in which he sought to “cripple the

<sup>22</sup> Ibid., 3.

<sup>23</sup> Edwin Hoyt, *U-Boats Offshore: When Hitler Struck America* (New York: Stein and Day 1978), 43.

<sup>24</sup> History of the Formation of the AAFAC, June 1943, 2, *Anti-submarine operations in the Battle of the Atlantic* [microform] Reel A4068.

British war effort by sinking merchant ships faster than they could be built.”<sup>25</sup> The tactics and assigned missions within the North Atlantic Naval Coastal Frontier (NANCF) changed in order to counter Dönitz’s strategy and the U-boat threat. The role of Army aircraft, in particular, also evolved. The First Bomber Command of the First Air Force, recognizing the expediency of conducting ASW operations, began conducting patrols beyond U.S. terrestrial borders and out to sea.<sup>26</sup> These operations marked an interesting turn in the implementation of Army air power, as AAF leaders continued to take advantage of opportunities to demonstrate the effectiveness of independent air power.

### **Beyond Waters Edge**

Although the responsibility of countering U-boats was initially seen as a Navy responsibility, the Navy was simply unprepared to do so.<sup>27</sup> NANCF commander Admiral Adolphus Andrews’ hands were tied by a lack of ships available for ASW duty. In addition, Navy antisubmarine warfare capabilities posed another significant problem. Andrews wrote in December 22, 1941 that, “There is not a single vessel available that an enemy submarine could not out-distance when operating on the surface. In most cases the guns of these vessels would be out-ranged by those of the submarine.”<sup>28</sup> The number of bombers accessible to the Navy also limited its response to the U-boat threat, because it did not have an adequate number of planes capable of conducting long range patrols

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<sup>25</sup> Runyan and Copes, 78.

<sup>26</sup> History and Organization of the Army Air Forces Anti submarine Command, 1, Reel A4057.

<sup>27</sup> History of the AAFAC, Date Unknown, “Forward to History of the Research Coordination Section of the Antisubmarine Command”, 1, Reel A4067. “The problem was one which was associated with the Navy, however by early 1942 it was apparent that, due to the geographical scope of our activities and the limited amount of equipment which was available. The Navy would require assistance.”

<sup>28</sup> Eastern Sea Frontier War Diary, December 1941, “Headquarters, Commander North Atlantic Naval Coastal Frontier and the General Task,” Chapter I, 3.

against the U-boats.<sup>29</sup> The AAF, however, did have long range bombers, such as the B-17 Flying Fortress. But the service was not adequately organized or equipped to conduct antisubmarine operations.<sup>30</sup> Neither did there exist any formalized Army organization to control air antisubmarine operations. As a result, until October 1942, the organization of the bomber squadrons fell under the operational control of the U.S. Navy and the NANCEF, an issue which strained the relationship between the Army Air Force and the Navy.<sup>31</sup>

Recognizing that one of the goals of AAF leaders in ASW operations was to demonstrate that offensive air power could be decisive in war, AAF's antisubmarine operations must be examined through the offensive and defensive perspectives. It must be remembered that at the outset of World War II, coastal defense took priority over offensive action.<sup>32</sup> Commander Eastern Sea Frontier Rear Admiral Adolphus Andrews clearly stated the importance of defensive operations against the U-boats. "Air escort of convoys," he wrote, "and important surface units will take precedence over other operations...The above policies appear to be chiefly defensive but their choice is dictated

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<sup>29</sup> Eastern Sea Frontier War Diary, March 10 – December 7, 1941, "Status of Readiness in the Frontier," Chapter II, 15. "Yet the whole structure of defense that has been erected during these past months rests upon the forces that are available to act in case of enemy action and those forces consist, within the Frontier, of twenty small boats of varying capabilities and 103 planes, a large proportion of which have no place in modern warfare."

<sup>30</sup> Craven and Cate, 524. "In addition, to the insufficient number of AAF force available, Army units began antisubmarine operations under serious handicaps of organization, training, and equipment."

<sup>31</sup> History of the Army Air Forces Antisubmarine Command, 13 October 1943, "The Antisubmarine Command of the Army Air Forces," Colonel C.A. Mollenry, Anti-submarine operations in the Battle of the Atlantic [microform] / Army Air Forces Anti-Submarine Command Reel 4057.

<sup>32</sup> Memorandum describing air power doctrine, Date Unknown, "Employment of Army Air Forces Antisubmarine force", 1, *Anti-submarine operations in the Battle of the Atlantic* [microform], 4077. "At the beginning of the anti-submarine campaign, the acute shortage of both surface and aircraft forces a defensive doctrine on United States forces. It was necessary to use all available means for close protection of convoys and coastal areas, with a result that no offensive or strategic operations could be conducted."

by present circumstances.”<sup>33</sup> The situation in early 1942 demanded that the AAF assume a defensive stance and conduct operations within the strict parameters identified in Andrews’ letter. Yet AAF leaders’ had other ideas. In a memo from General Marshall to Admiral King, the Army Chief of Staff stated that “All air operations must be conducted on the basis that once a submarine is located, it must be hunted down and destroyed regardless of time and effort.”<sup>34</sup> Marshall’s memo to Admiral King identified the need for offensive operations, even before Admiral Andrews determined that the protection of merchant shipping was the top priority. Marshall believed that in order for air power to be successful in ASW, the U-boats must be “hunted down and destroyed” in an offensive strategy. Using aircraft offensively was the strategic objective of AAF leaders, but it was not until defensive operations could be proved to be ineffective that the AAF would get the opportunity to validate offensive and autonomous air power. Ultimately, American military and political leaders needed to see that the number of sinkings brought on by U-boat attacks did not substantially change with defensive action.

In determining whether or not antisubmarine operations were effective, military leaders relied heavily on the number of merchant losses resulting from enemy U-boat attacks. Within the strategic area off the United States’ eastern shore, the number of U-boats decreased dramatically from May 1942 through October 1942, as demonstrated by the below table:

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<sup>33</sup> Memorandum to Task Group Commanders from Admiral Adolphus Andrews, September 24 1942, “Policy Governing the Employment of Aircraft Forces,” 1-2, *Anti-submarine operations in the Battle of the Atlantic* [microform], Reel A4076.

<sup>34</sup> Memorandum from General Marshall to Admiral King, May 1942, “Anti-submarine Operations,” *Anti-submarine operations in the Battle of the Atlantic* [microform], Reel A4061.

“Score in merchant vessel sinkings (U.S. Strategic Area only)”<sup>35</sup>

January	39	June	112
February	70	July	54
March	74	August	92
April	62	September	64
May	120	October	39

Though the table above showed a drop in merchant ship losses within the U.S. strategic area, it failed to recognize the increase of sinkings outside of this area. In a memo to General Arnold, Brigadier General Russell, the AAF coordinator for antisubmarine activity, stated that “The decrease in the number of sinkings in our strategic area in October have been more than balanced by an increase in the number of sinkings elsewhere.”<sup>36</sup> Once the United States became effective at defending its coasts against the U-boats, U-boat activity decreased in American waters, but increased in the mid-Atlantic. This shift in numbers coincided with the shift in German tactics.<sup>37</sup> The shifting operating area of the U-boats further inhibited the Navy’s ability to conduct ASW operations, in part because of the limitations of its own long range Catalina flying boat.<sup>38</sup> The Navy’s PBY Catalinas had the ability to conduct long range patrols, but their slow speed proved a deficiency when attacking submarines. These limitations prohibited, at the time, a successful ASW campaign, because of how American leaders measured success during the Battle of the Atlantic. In their book, *To Die Gallantly*, editors Timothy Runyan and

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<sup>35</sup> Memorandum for the Commanding General, Army Air Forces, November 3, 1942, “Anti-Submarine Warfare,” 1. *Anti-submarine operations in the Battle of the Atlantic* [microform], Reel A4057.

<sup>36</sup> *IBID.*, 1.  
Craven, 245

<sup>37</sup> Army Antisubmarine Command History, April 25<sup>th</sup> 1945, Chapter II: The Antisubmarine Controversy, <http://www.uboardarchive.net/AAFHistoryCH2.htm>, 42. “Since May 1942, the Germans had been gradually withdrawing their submarine forces from the U. S. coastal waters. By September they had apparently abandoned the policy of attacking merchant shipping wherever it might be found in profitable quantities, and had begun to concentrate their forces defensively against the military shipping which the Allies were sending to the British Isles and to Africa in preparation for offensive action in those areas.”

<sup>38</sup> Memorandum for the Commanding General, Army Air Forces, “Anti-Submarine Warfare, 2.

Jan Copes described the terms of success: “Under the U.S. Navy’s strategic concept, the victory achieved by Allied armies in Western Europe was the ultimate measure of success in the Battle of the Atlantic...U.S. naval leaders saw the destruction of enemy U-boats as secondary in importance.”<sup>39</sup> In order to achieve an Allied victory on the land, the Allies needed to be victorious over the water. Success in the Atlantic was determined by the number of merchant vessels that safely arrived in Great Britain and North Africa. Understanding the measure of success is fundamental to understanding why the AAF decided to leave the ASW arena, described later. The table above, paired with General Russell’s comments, demonstrated that a defensive strategy did not decrease the number U-boats operating in the Atlantic Ocean, and was therefore an ineffective strategy.<sup>40</sup> General Russell concluded his memo with a discussion of both offensive and defensive operations:

Unless a new and highly lethal weapon is found – one which will be effective at many times the range of the present depth bomb – there seems no hope that purely defensive means of coping with the submarine will prove effective. This is the view of all Naval officers with whom they undersigned has talked, and it is certainly substantiated by both our own and the British experience.<sup>41</sup>

General Russell’s memo to General Arnold is vital to understanding the AAF’s involvement in ASW operations, because it identified the justification for breaking away from the defensive limitations imposed by the Navy, and conducting offensive operations in pursuit of AAF strategic goals.

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<sup>39</sup> Runyan and Copes, xxiii.

<sup>40</sup> Memorandum for the Commanding General, Army Air Forces, “Anti-Submarine Warfare, 2. “As previously stated, the present defensive operations against the U-boat are apparently not capable of even holding shipping losses within tolerable limits. The efficacy of each measure depends solely upon their ability to sink or seriously damage submarines at a greater rate than they can be built (approximately 20-25 new U-boats per month in November 1942).”

<sup>41</sup> *Ibid.*, 3.

## Army Air Force Antisubmarine Command

Before the AAF could add the offensive component to its ASW operations, it first had to deal with the U-boat threat along the eastern seaboard. The AAF initially detached squadrons from its bomber commands and put them under the operational control of the Navy. This demonstrated AAF commitment to the U-boat war, but at the expense of service independence. Simply put, no formalized command meant that the Army's aircraft would continue to be simply a detachment to the Navy. Antisubmarine warfare could only provide the Army Air Force with the opportunity to achieve its doctrinal goals if conducted as autonomous and offensive operations. Army leaders believed that, due to the inadequacy of surface ASW vessels, the situation demanded that aircraft fill the void for such an important mission.<sup>42</sup>

During the month of April 1942, U-boats sank twenty-four ships equaling a total of 138,121 tons over the course of one month.<sup>43</sup> The reason such high numbers continued to prevail was, in part due to the shifting strategy of the U-boats. The Eastern Sea Frontier noted a movement of U-boat activities to the Caribbean and Gulf of Mexico.<sup>44</sup> As a result of the significantly high number of sinkings during the month of May, paired with the shift of U-boat activity south and east into the Atlantic, there became a need for

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<sup>42</sup> Memorandum to Commanding General AAFAC, April 22, 1943, "Trip to Washington," 1, *Anti-submarine operations in the Battle of the Atlantic* [microform], Reel A4067. "He [Commander Vosseller, CO of Aircraft, Anti-submarine warfare Detachment, Atlantic Fleet] believes that since surface escorts will be inadequate for some time to come, aircraft can and will have to take the burden of anti-submarine effort if they can reach the active areas."

<sup>43</sup> Eastern Sea Frontier, "War Diary of the Eastern Sea Frontier April 1942," Chapter 1 1.

<sup>44</sup> *Ibid.*

a reorganization of antisubmarine operations.<sup>45</sup> On October 26, 1942 the U.S. Army established the Army Air Force Antisubmarine Command (AAFAC). The command's creation signified that the AAF, or more specifically squadrons from the First Bomber Command, would no longer be restricted by the "temporary nature of its assignment."<sup>46</sup> The AAFAC signified the AAF's complete commitment to the fight against the U-boats. In addition to being committed to ASW, Army aviators gained the flexibility to expand the scope of antisubmarine operations, to include the use of offensive patrols to hunt for U-boats. Writing to Admiral King, Chief of the Staff of the Army General George Marshall remarked that:

1. Experience with the First Bomber Command in antisubmarine operations since March indicates that the effective employment of air forces against submarines demands rapid communications, mobility, and freedom from the restrictions inherent in command systems based upon area responsibility.
2. I am convinced that we should take measures to profit immediately by this experience with the limited means now available. I am therefore, directing the organization of the First Antisubmarine Army Air Command, which will absorb elements of the First Bomber Command that have been engaged in this work.<sup>47</sup>

General Marshall's use of the terms "rapid," "mobility," and "freedom" is important.

Ultimately, the AAF wanted to be considered independent from Navy restrictions, and more specifically convoy escort. In order to obtain this separation, the Army Air Force formalized its role in antisubmarine warfare. More importantly, the Army needed to strongly advocate and act on the opportunities to conduct independent and offensive air

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<sup>45</sup> Army Antisubmarine Command History, 17.

<sup>46</sup> *Ibid.*, 41-42.

<sup>47</sup> Memorandum from General George Marshall to Admiral King, September 14, 1942, "Formation of First Anti-Submarine Army Air Command," *Anti-submarine operations in the Battle of the Atlantic* [microform], Reel A4063.

operations. General Marshall's letter conveyed to Admiral King both the doctrinal goals that he wanted the AAF to achieve, and how the Army was going to achieve them. The creation of the AAFAC provided a direct path towards achieving the independence that air force advocates sought.

As late as April 29, 1943, General Ira Eaker reported to the Joint Chiefs that "It would be highly desirable to initiate precision bombing attacks against German fighter assembly and engine factories immediately. However, our present force of day bombers is too small to make the deeper penetrations necessary to reach the majority of these factories."<sup>48</sup> The U-boat threat provided an early opportunity to demonstrate the decisive potential of independent air operations. The creation of the AAFAC represented a significant step, as the AAF became fully committed to ASW, but more importantly, separating the air force from the North Atlantic Navy Coastal Frontier, to "act as the strategic air force in antisubmarine warfare."<sup>49</sup> The terminology signified that it would not be just "a" strategic air force, but it would be the decisive force against the German submarines. It is also interesting to note the adaptation of the Army's use of the word "strategic." According to AWPD-1, the Army had three major tasks, one of which was the destruction of "the industrial war making capacity of Germany."<sup>50</sup> Within this context, strategic is defined as the type of targets the Army wanted to hit: factories, the electrical power grid, transportation and supply lines, and other targets within Germany.

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<sup>48</sup> Record Copy of a meeting with the Joint Chiefs of Staff, April 29<sup>th</sup> 1943, "General Eaker's Presentation of the Combined Bomber Offensive Plan to the Joint Chiefs of Staff," *The Foundations of U.S. Air Doctrine: The Problem of Friction in War*, (Maxwell Air Force Base: Air University Press 1984), 140. "It would be highly desirable to initiate precision bombing attacks against German fighter assembly and engine factories immediately. However, our present force of day bombers is too small to make the deeper penetrations necessary to reach the majority of these factories."

<sup>49</sup> Employment of Army Air Force Antisubmarine Force, 3.

<sup>50</sup> Johnson, 169-170.

As the Army Air Force became involved in antisubmarine warfare, “strategic” was stretched to include a tactical war-fighting platform.

The reality of the situation, however, dictated that the AAF would not be the only service involved in conducting antisubmarine operations. Though the Navy did not have the assets to fully respond to the U-boat threat immediately, antisubmarine warfare remained an Army/Navy joint effort, a relationship that struggled at times. The most significant source of contention between the Navy and the Army revolved around use of AAF aircraft in convoy operations. The defensive nature of patrolling around convoys has already been discussed. But convoy operations posed another challenge to accomplishing the AAF’s doctrinal objective of independence. Specifically, tying air power to the convoys forced the AAF to become dependent upon the commanders of those convoys. In a letter written to military leaders within the Eastern Sea Frontier, Admiral Adolphus Andrews wrote, “The leader of a flight should be receptive toward advice from the surface escort commander, and should comply with the recommendations thereof when not inconsistent with either basic air doctrines or special instructions which he may have received.”<sup>51</sup> The letter detailing the mission of the AAFAC stated the relationship between AAF aircraft and the Navy: “Antisubmarine operations in the Eastern Sea Frontier and Gulf Sea Frontier will be conducted under the operational control of the Navy.”<sup>52</sup> Though this letter was written shortly after the establishment of the AAFAC, and discussed specifically the Eastern and Gulf Sea Frontiers, it continued

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<sup>51</sup> Memorandum for Task Group Commanders, Escort Commanders, and All Air Activities of the Eastern Frontier, October 13, 1942, Control of Air Escort Operations, 1, *Anti-submarine operations in the Battle of the Atlantic* [microform], Reel A4076.

<sup>52</sup> Memorandum detailing the formation of the AAFAC, December 28, 1942, “Army Air Forces Antisubmarine Command,” 1, *Anti-submarine operations in the Battle of the Atlantic* [microform], Reel A4063.

to tie AAF assets under the operational control of the Navy. This control inhibited Army aviators from exploiting what they believed were the significant advantages of independent air operations. Discussing these advantages, Colonel Robert Williams wrote in a letter to General Arnold that “One of the biggest advantages of air power is its ability to move rapidly from one base to another to meet the tactical situation.”<sup>53</sup> Convoy operations significantly limited the ability of AAF leaders to demonstrate that independent air operations could be decisive in war.

Army aviators knew the strategic goals they wanted to accomplish through their antisubmarine command, but even at its creation there existed controversy over its role. The mission statement of the AAFAC reflected some of this controversy, specifically as it pertains to convoy operations:

- a) The location and destruction of hostile submarines wherever they may be operating in opposition to our war effort and with assisting the Navy in the protection of friendly shipping.
- b) The training and development of means by which to accomplish its mission.
- c) Making available, in case of necessity, elements of the Antisubmarine Command for protection of our sea frontiers against threatened enemy attack.
- d) Maintaining the training of crews and the condition of aircraft at a level to permit effective prosecution of subparagraphs a and c above.<sup>54</sup>

The words in subparagraph “a” in the mission statement demonstrated the conflicting roles of ASW for the AAF. From one perspective, the phrase, “wherever they may be operating,” suggested that AAF ASW squadrons should possess the operational freedom to hunt for U-boats independently, whether they were operating in the vicinity of a convoy or not. Offensive operations could not be conducted if the aircraft was limited to

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<sup>53</sup> Letter to Commanding General of AAFAC with Recommendations, September 1, 1942, “Items Considered Necessary to Improve Air Operations in the Sixth Naval District, 2, *Anti-submarine operations in the Battle of the Atlantic* [microform], Reel A4067.

<sup>54</sup> Memorandum detailing the formation of the AAFAC, December 28, 1942, 1.

the area immediately surrounding a convoy. Yet, while the mission statement implied independent AAFAC operations, it also specifically required that the AAF conduct operations to protect merchant shipping. The protection of these shipping lanes continued to be a priority, so the AAF's involvement in convoy escorts continued. At the same time however, there was a significant need for the antisubmarine operations off the British coast to increase, and the AAF began sending antisubmarine squadrons abroad.

### Operations Abroad

Once the AAF determined that defensive operations along the coast of the United States were no longer necessary, the antisubmarine command pushed offensive and independent operations abroad.<sup>55</sup> This next phase in antisubmarine operations during the Battle of the Atlantic occurred in two major areas: Great Britain and off the coast of North Africa. Off the coast of Great Britain the opportunity for offensive operations lay

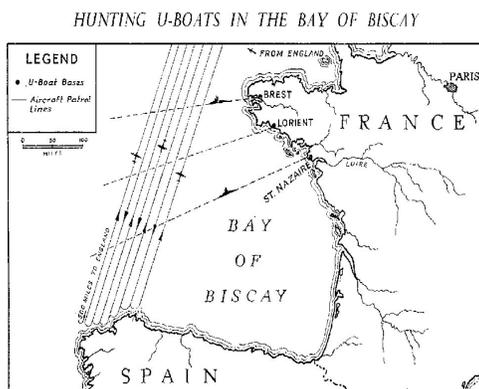


Figure 3 <http://www.nzetc.org/>

470<sup>th</sup> ASG.

in the Bay of Biscay. The fall of France gave German U-boats direct access to the Atlantic's shipping lanes and the waters off the coast of Great Britain. Because of its strategic importance to the war effort, the AAFAC sent over the 480<sup>th</sup> Antisubmarine Group (ASG), followed later by the

<sup>55</sup> Employment of Army Air Forces Antisubmarine Force, 1-2. "Our defensive phase has now passed. The hostile submarines have withdrawn from our sea frontiers... We are now definitely ready to enter the offensive phase, exploiting fully the inherent capabilities of VLR [Very Long Range] air power, in submarine warfare, unhampered by the restrictions of local security missions and fixed area responsibility."

The 480<sup>th</sup> Antisubmarine Group (ASG) best demonstrates the offensive and independent objectives that the AAF was trying to accomplish in conducting ASW operations. The squadrons that made up the 480<sup>th</sup> ASG originated from AAF bomber commands. On November 23, 1942, aircrews from 2<sup>nd</sup> Bombardment Group were re-designated as antisubmarine squadrons of the 1<sup>st</sup> Antisubmarine Squadron and placed under the command of Lieutenant Colonel Jack Roberts, the former executive officer of the 2<sup>nd</sup> Bombardment Group.<sup>56</sup> Shortly thereafter, the 1<sup>st</sup> and 2<sup>nd</sup> Antisubmarine Squadrons, now a part of the 480<sup>th</sup> ASG, were sent to the United Kingdom to aid the Royal Air Force's Coastal Command in combating the U-boats that threatened merchant shipping in European waters.

Due to the number of German naval ports of the coast of France, the concentration of U-boats in the Bay of Biscay was significantly higher than other waters.<sup>57</sup> U-boats had to cross the bay's waters if they were to gain open access to Atlantic waters. As a result, American and British antisubmarine efforts focused on the bay, but also offered the 480<sup>th</sup> ASG the best opportunity to validate AAF doctrine. While stationed in the United Kingdom, the 480<sup>th</sup> ASG participated in Operation GONDOLA (February 6-15 1943), a ten day operation designed to ensure that each submarine attempting to cross the Bay of Biscay was attacked at least once.<sup>58</sup> Over the course of the operation, aviators accrued over 2,000 hours of flight time in search of the U-boats.<sup>59</sup> The B-24D Liberator crews were not tied to any convoy, providing the opportunity to

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<sup>56</sup> Max Schoenfeld, *Stalking the U-Boat: USAAF Offensive Antisubmarine Operations in World War II*, (Washington: Smithsonian Institute 1995), 20.

<sup>57</sup> Intelligence Reports, June 1943, "Monthly Summary," 20 *Anti-submarine operations in the Battle of the Atlantic* [microform] Reel A4057.

<sup>58</sup> Schoenfeld, *Stalking the U-boat*, 45.

<sup>59</sup> *Ibid.*, 46.

conduct long patrols in search of U-boats on the surface. During the operation the 480<sup>th</sup> ASG achieved limited success, as it confirmed one U-boat sunk out of five total attacks.<sup>60</sup> According to Army intelligence, this record demonstrated the usefulness and success of independent patrols.<sup>61</sup> These types of offensive operations, it was believed, compared to a combination of “defensive-offensive” [convoy escorts paired with offensive patrols] operations in the middle of the Atlantic Ocean, would “lead to a breaking-point and thus to a total defeat of the U-boats in the Atlantic...”<sup>62</sup> The possibility of such a success occurring seemed the perfect opportunity for the AAF to demonstrate the effectiveness of independent air power.

The 480<sup>th</sup> ASG continued to conduct patrols in the Bay of Biscay until it was transferred to the coast of North Africa in March 1943.<sup>63</sup> The transfer of the 480<sup>th</sup> ASG was not seen as a positive move for the ASG. The monthly intelligence reports from the AAFAC all clearly identified the Bay of Biscay as the best opportunity the Allies would have against the U-boats. Nevertheless, by March 1943, the 480<sup>th</sup> ASG began conducting ASW operations of the Northern coast of Africa at Port Lyautey, French Morocco.<sup>64</sup> The AAFAC squadrons fell within the Moroccan Sea Frontier, but more importantly under the operational control of the Navy.<sup>65</sup> This fact alone represented a significant step back in the progress the AAF had made in conducting independent air operations under the

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<sup>60</sup> Ibid, 52.

<sup>61</sup> Intelligence Reports, February 1943, “Monthly Summary,” 15 *Anti-submarine operations in the Battle of the Atlantic* [microform] Reel 4057. “Because of the efficiency and density of air patrols, submarines in transit between their bases on the French coast and their operating areas in the North and South Atlantic have been forced to travel submerged by day until approximately west of 15° West.

<sup>62</sup> Document describing operations against U-boats in transit, Date Unknown, “Air Offensive against U-boats in Transit,” 1, *Anti-submarine operations in the Battle of the Atlantic* [microform] Reel A4073.

<sup>63</sup> News release, December 10<sup>th</sup> 1943, “480<sup>th</sup> Antisubmarine Group Returns from Battle of Atlantic,” 2, *Anti-submarine operations in the Battle of the Atlantic* [microform] Reel A4070.

<sup>64</sup> Schoenfeld, *Stalking the U-boat*, 74.

<sup>65</sup> Schoenfeld, *Stalking the U-boat*, 80.

control of its own antisubmarine command. The 480<sup>th</sup> ASG would not return to what they considered to be the successful arena in the Bay of Biscay.

While the 480<sup>th</sup> ASGs flew missions from Great Britain and North Africa, operations were conducted in conjunction with the antisubmarine effort to attack the submarines at their source. Recognizing that the AAF's involvement in ASW represented a doctrinal adaptation from strategic bombardment, Army aviators still looked for a more palatable target doctrinally.<sup>66</sup> By attacking submarine bases along the coast of France the AAF could inflict heavy damage not only on currently operating submarines, but also slow the production rate of German submarines. So in March 1943 the Eighth Air Force conducted raids against St. Nazair, Lorient, and Brest.<sup>67</sup> The intelligence summary for that month reported "great damage is being done to St. Nazaire," and the attack at Vegesack resulted in "an outstanding success which was cited as final proof of the efficacy of the daylight precision bombing tactics of the USAAF."<sup>68</sup> It seemed that attacks against German submarine bases had a significant impact on Germany's capacity for waging submarine warfare. Yet, only two months later, the May intelligence summary reported, "while the bombings on submarine bases demonstrated the Air Forces' ability to successfully attack the bases, little damage was done to the submarine shelters."<sup>69</sup>

Hitting the submarine bases was not hitting the production of submarines.

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<sup>66</sup> Memorandum from the Director of Bombardment to the Assistant Chief of Staff of the Army, January 20<sup>th</sup> 1943, "Report of Anti-Submarine Operational Research Group, 7, *Anti-submarine operations in the Battle of the Atlantic* [microform] Reel A4064.

<sup>67</sup> Intelligence Reports, March 1943, "Monthly Summary," 13, *Anti-submarine operations in the Battle of the Atlantic* [microform] Reel A4057.

<sup>68</sup> Intelligence Reports, March 1943, 13.

<sup>69</sup> Intelligence Reports, May 1943, "Monthly Summary," 17, *Anti-submarine operations in the Battle of the Atlantic* [microform] Reel A4057.

### **Limited Success and Dissolution**

There is no doubt, that from the time of the attack on Pearl Harbor up until July of 1943, the AAF answered the nation's call against the U-boats and had done so quite effectively. The protection of merchant shipping in American waters, though ineffective at first, achieved a certain level of success.<sup>70</sup> By February of 1943, Navy convoys and the AAF had essentially driven U-boats away from the east coast of the United States, making operations in American waters relatively safe for merchant shipping. But was it enough? Though the AAF achieved success against the U-boats, a view shared by the Navy, ASW failed to achieve all that aviators had hoped for. Aviators felt that they had not taken full advantage of the offensive and independent role of air power, a notion they considered the most effective at defeating the U-boat.<sup>71</sup> It was only after the U-boat threat diminished in American waters that the AAF took full advantage of its long range bombers and attempted to demonstrate its potential for offensive and independent operations in the Battle of the Atlantic.

Once established, the AAFAC projected air power well beyond the borders of the United States to include the coastal borders of the United Kingdom and North Africa. It was during these operations that the AAFAC increased its technological and tactical capability to hunt for and attack surfaced U-boats. The AAFAC intelligence report for May of 1943 describes the attack on convoy ONS-5, which resulted in the sinking of five U-boats and the damage of many others, representing a possible turning point in the

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<sup>70</sup> Schoenfeld, *Stalking the U-boat*, 19.

<sup>71</sup> *Ibid.*, 19.

submarine war.<sup>72</sup> The same intelligence report goes on to report that “More U-boats are estimated to have been sunk during this one month than during the whole of the first six months (December, 1941 – May, 1942) after this country entered the war.”<sup>73</sup> It must be noted that the success of ASW operations during this month did include the use of surface vessels and Navy aircraft. Despite this fact, the AAFAC demonstrated that offensive and independent air power could be effective in antisubmarine warfare. A report which discussed the influence of the AAFAC stated that, “Above all its other contributions, the Antisubmarine Command in the final analysis is in a position to share with the Coastal Command [Royal Air Force] the responsibility for having proved the value of air power as a weapon against the submarine.”<sup>74</sup> Recognizing that the language of this report in referring to air power in antisubmarine warfare as “a” weapon as opposed to “the” weapon or “the decisive weapon” is only a matter of words, but it reflects the situation during the summer of 1943, as American leaders, specifically the President of the United States, began advocating more strongly for a defensive stance in the form of convoy escorts.

While the squadrons in Great Britain and North Africa continued successful antisubmarine operations, politics in the United States influenced the future of air power in the fight against the U-boats. Two months prior to the release of the intelligence report cited above, Franklin D. Roosevelt sent a letter Army Chief of Staff George Marshall. In the letter Roosevelt writes:

1. Since the rate of sinking of our merchant ships in the North Atlantic during the past week has increased at a rate that threatens

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<sup>72</sup> Intelligence Reports, May 1943, 5.

<sup>73</sup> *Ibid.*, 9.

<sup>74</sup> History of the dissolution of the AAFAC, Date Unknown, 10, *Anti-submarine operations in the Battle of the Atlantic* [microform] Reel A4057.

seriously the security of Great Britain, and therefore both “Husky” and “Bolero”, it seems evident that every available weapon must be used at once to counteract the enemy submarine campaign.

2. It is my understanding that an increase in the number of long-range bombers operating from Newfoundland, Greenland, Iceland, and Great Britain, combined with the increasing use of ACV's is the most positive step that can be taken at once.
3. Please inform me:
  - a. At what rate the air support of our convoys by ACV's will be increased.<sup>75</sup>

At the beginning of his memo, Roosevelt reaffirmed that antisubmarine warfare remained an important mission for the United States. Further in the letter, Roosevelt determined that the use of ACV's (auxiliary aircraft carriers) as the best course of action against the U-boats.<sup>76</sup> Coming from the President, this letter is a message to both the Army and the Navy that the emphasis of antisubmarine operations should be placed on ACV's and escorting convoys across the Atlantic. For the Army Air Force, the most influential statement within the Roosevelt's letter is when he inquires of Marshall as to how fast he can transition his aviators to be in a position to support ACV's and more importantly, the escorting of convoys. The President's letter struck at the core of the AAF's reason for being involved in ASW operations. Roosevelt stressed the importance of protecting the merchant shipping lanes across the Atlantic Ocean. But convoy escort doctrinally constrained the AAF to defensive operations and a subordinate position to the Navy.

More ominous to Air Force aviators was the notion that the Navy was attempting to acquire land-based bombers for a bombardment campaign in the Pacific Theatre. In February 1943 Commander in Chief of the Pacific Chester Nimitz travelled to San Francisco to meet with Admiral King. The main focus of this meeting centered on how to

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<sup>75</sup> Memorandum from President F.D. Roosevelt to Army Chief of Staff George Marshall, March 18, 1943, *Anti-submarine operations in the Battle of the Atlantic* [microform] Reel A4061.

<sup>76</sup> Early in the war, the Navy recognized that it needed defense carriers which had the speed to escort convoys across the Atlantic, and the production of Auxiliary Aircraft Carriers (ACV's) filled that role.

create a strong central Pacific drive against Japanese forces. A significant exchange occurred during this meeting which influenced the AAF's role in antisubmarine warfare: "Nimitz said he needed heavy bombers, and King promised to get them."<sup>77</sup> King's promise to Nimitz had serious implications for the Army Air Force, because it signified that the Navy, once it got a hold of long range bombers, would begin conducting a strategic bombardment campaign, a role the Army Force considered solely its own.

While the discussion of a possible Navy bombardment campaign in the Pacific occurred, the Army Air Force moved closer to being able to fully implement a strategic bombardment campaign against Germany. In a presentation by Major General Eaker to the Joint Chiefs of Staff on April 29<sup>th</sup> 1943, he concluded: "If the forces required as set forth above are made available on the dates indicated, it will be possible to carry out the Mission prescribed in the Casablanca Conference."<sup>78</sup> Soon the Army would be able to fully implement a bombardment campaign against Germany, giving the Air Force the opportunity they originally sought for to justify the existence of a strategic air force. Given all of these factors the Army Air Force needed to decide where its destiny lay.

The expedient decision was to cut and run from antisubmarine operations. By July 1943 the Army and the Navy clarified the boundaries between service roles and mission and fenced off strategic bombardment for Army aviators:

- a. The Army is prepared to withdraw Army Air Forces from antisubmarine operations at such time as the Navy is ready to take over those duties completely.
- b. Army antisubmarine B-24 airplanes would be turned over to the Navy in such numbers as they could be replaced by Navy combat B-24's

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<sup>77</sup> E.B. Potter, *Nimitz*, (Annapolis: Naval Institute Press, 1976), 237.

<sup>78</sup> Watts, 145. The forces General Eaker is referring to started with a 1<sup>st</sup> Phase consisting of 1144 heavy and medium bombers by June 1943 and ended with a 4<sup>th</sup> Phase which called for a total of 3,702 heavy and medium bombers by March 1944.

- c. It is primarily the responsibility of the Army to provide long-range bombing forces (currently called “strategic air forces”) for operations from shore bases in defense of the Western Hemisphere and for appropriate operations in other theatres.<sup>79</sup>

Known as the Arnold-McNarney-McCain agreement, the organizational changes became effective on the 9<sup>th</sup> of July 1943, and signified the end to the AAF’s involvement in ASW. Under the terms of the agreement, “The Army is to retain B-24 airplanes now scheduled for delivery to the Navy on Army contract at the same rate at which Army B-24’s (antisubmarine modified) are delivered to the Navy.”<sup>80</sup> All antisubmarine equipped aircrafts were to be transferred over to the Navy, in order that the Navy could become solely responsible for antisubmarine warfare. General Marshall noted to Admiral King that the Arnold-McNarney-McCain agreement seemed to provide a solution for the role of the Army Air Force in terms of antisubmarine warfare and strategic bombardment.<sup>81</sup> On August 24<sup>th</sup>, 1943 the AAFAC was inactivated and “re-designated the I Bomber Command.”<sup>82</sup> By the summer of the 1943 the Eighth Air Force was bombing land based targets along the continental European coast.<sup>83</sup>

The appearance of the German U-boats off the east coast of the United States sparked a temporary yet dramatic shift in focus for the Army Air Force. It was required to respond to a threat that it was doctrinally, logistically, and intellectually unprepared to

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<sup>79</sup> Memorandum detailing the AAF withdrawal from ASW, July 10, 1943, “Transfer of Army Anti-Submarine Airplanes to the Navy,” 1, *Anti-submarine operations in the Battle of the Atlantic* [microform] Reel A4057.

<sup>80</sup> Memorandum from Admiral King to Chief of Staff of the Army, June 14 1943, 2, “Memorandum for Chief of Staff, U.S. Army,” *Anti-submarine operations in the Battle of the Atlantic* [microform] / Army Air Forces Anti-Submarine Command Reel A4057

<sup>81</sup> Wesley Craven and James Lea Cate eds., “The Army Air Forces in World War II, Vol 2. Europe: TORCE TO POINTBLANK August 1942 to December 1943, (Chicago: The University of Chicago Press, 1949), 408. “The question of responsibility for offensive operations against submarines and that of responsibility for long-range air striking forces are so closely related that a proper solution of one, involves consideration of the other. The tentative Arnold-McNarney-McCain agreement appeared to offer an acceptable solution to both these issues...”

<sup>82</sup> History of the dissolution of the AAFAC, 1.

<sup>83</sup> Intelligence Reports, May 1943, 14.

fight against. Despite these challenges, the AAF adapted and proved effective in protecting merchant shipping and driving the U-boats from American waters. For the AAF, the U-boats threatened Allied shipping initially in American waters early in 1942, and then all throughout the Atlantic late in 1942 and in 1943. Victory in the Battle of the Atlantic depended on keeping the United Kingdom in the war until the United States could fully mobilize. The AAF helped to ensure the completion of this mission, and at the same time, demonstrating the effectiveness of air power against the enemy. The Army Air Force's doctrinal adaptation offered an important understanding of the development of military doctrine. When presented with a war, each military service attempts to identify a legitimate role within the context of the war, thereby proving its legitimacy. ASW operations promised an early opportunity for the AAF to demonstrate that offensive and independent operations could be decisive in war, adding evidence to the justification for a strategic air force. Yet, despite success in the Bay of Biscay, the Army Air Force could not disentangle air power from its inherent strength as a convoy escort. Realizing that ASW no longer presented the opportunity to accomplish its strategic objectives, it came to an agreement with the Navy to switch ASW-modified aircraft for unmodified aircraft, giving the responsibility for ASW solely to the Navy. The duration of the Army Air Forces' involvement in antisubmarine warfare lasted for less than year. Though its aviators proved successful at attacking German U-boats and providing for the protection of the vital shipping lanes and the success of the United States in the Atlantic, the allure of its terrestrial agenda, coupled with the threat of US navy intrusion on its doctrinal turf, signaled the limits of AAF contribution to the Battle of the Atlantic.

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