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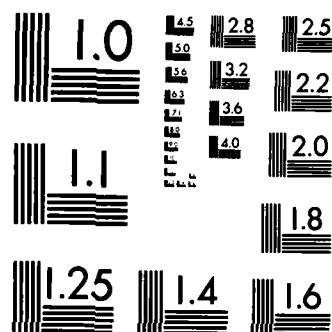
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STUDENT REPORT

THE ROLE OF THE ARMY AIR CORPS IN
ANTISUBMARINE WARFARE IN WORLD WAR II

MAJOR MANUEL T. TORRES

85-2725

"insights into tomorrow"

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WORLD WAR II

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Submitted to the faculty in partial fulfillment of
requirements for graduation.

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PREFACE

The intent of this study is to review the role of the Air Corps in anti-submarine warfare and the doctrinal dispute over airpower between the Army and Navy. The Air Corps played a key role in the war against the submarine in World War II. This historical study highlights the efforts of the brave leaders and men of the Air Corps who were thrown into an unconventional role. Pre-war planning had not indicated the Air Corps would be required to conduct antisubmarine warfare. Nevertheless, on 7 December 1941 the United States' sea lanes were without adequate protection against enemy submarines and dictated drastic measures to augment an ill-prepared naval antisubmarine force. At the request of the Navy, the Air Corps participated in antisubmarine warfare from December 1941 through November 1943. During this time, the Navy and Air Corps spent almost as much time struggling over the proper antisubmarine tactics as they did battling submarines. This disagreement didn't begin with World War II, but actually had roots in pre-war policy.

The study is divided into four chapters. Chapter one traces the development of the airpower dispute between the Army and Navy from the end of World War I to the spring of 1941, the congressional direction to the services, and the submarine threat facing the United States. Chapter two covers the Air Corps entry into antisubmarine warfare, the type of airplanes, equipment and training available, and the ensuing dispute over the use of the airplane in a defensive or offensive role. Chapter three discusses the

CONTINUED

creation of the Army Air Forces Antisubmarine Command and concentrates on the continuing disagreement over the role of the airplane. Chapter four covers the expanding disagreement over offensive tactics and centers on the question of which service should control all land-based, long-range aviation. The chapter concludes with the drawdown of the Air Corps responsibility and deactivation of the Army Air Forces Antisubmarine Command.

The author wishes to express his gratitude to Major Les Sliter for his support. He was very helpful in the author's understanding of the USAF Historical Research Center's holdings, as well as in reviewing and commenting on the manuscript. A sincere thanks to Major Sliter for his time and effort.

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Chapter One

THE ARMY AIR CORPS BETWEEN WARS (1920 - APRIL 1941)

INTRODUCTION AND BACKGROUND

The story of the Army Air Corps (AAC) role in antisubmarine warfare (ASW) during World War II is one of success and failure, of humor and irony, and of young airmen armed with energy and ingenuity (3:410). It's a story of the formation of the Army Air Force Antisubmarine Command to assist the Navy in protecting the shipping lanes against submarines. It is also a story of challenging and questioning doctrine and tactics while clearly demonstrating the capabilities of the airplanes and men who flew them. Perhaps it is best a lesson in flexibility and readiness. In any case, it is a rich part of the history of the United States Air Force.

The United States' demobilization and isolationist policy after World War I pushed the country into an almost complete state of unreadiness at the onset of World War II (2:518). This unpreparedness is best illustrated by the lack of naval planning against submarine warfare (4:209). From the beginning, the Navy and Army disagreed on the control and use of aircraft. The Navy believed they should operate and control all aircraft operating over the seas; the Army believed it should command and control all aircraft that were land-based, regardless of their operating area (2:519). Since both services wanted aircraft, Congress feared a duplication of installations and equipment. To avoid a confrontation, in its Army Appropriations Act of 1920, Congress gave

land-based aviation responsibility to the Army and sea-based aviation responsibility to the Navy (4:240). The significance of the Act was in the question it left unanswered: who was responsible in cases of joint Army-Navy operations such as defending from an invasion (2:520)? Both services recognized the need for cooperation in defense planning and began discussions which led to the publication of FTP-155, Joint Action [Plan] of the Army and the Navy, on 11 September 1935 (5:1, 15:1). This plan set the controlling policy that clarified the relationship between the two services in defending the coasts of the country. Under the plan's provisions, the Navy was responsible for all inland and offshore patrols to protect shipping and defend the coastal frontiers; likewise, the Army was held responsible for defense of the coastline. This meant the Navy conducted patrols and combat operations on inland waterways, as well as at sea. Conversely, the Army operations were limited to directly supporting ground troops in resisting an invasion. Additionally, the plan allowed for aircraft from either service to support the other service in case of an emergency. While the plan directed that defense plans for the Atlantic seaboard be prepared by the commanders of the Third Naval District and the First Army, it still did not clarify the question of command responsibility in the event of a joint operation (5:1; 2:520).

From the top down, every segment of command ran into obstacles. To defend the Atlantic Coast, the Army's Eastern Defense Command (EDC) had command and control of the First Air Force which included the I Bomber Command. (FIGURE 1). The organizational structure appeared simple, but the command structure was complicated because some functions reported directly to Army Headquarters and others to EDC. The Navy had similar problems. The Commander, North Atlantic Naval Coastal Frontier (NANCF), dual-hatted as the Commandant, Third Naval

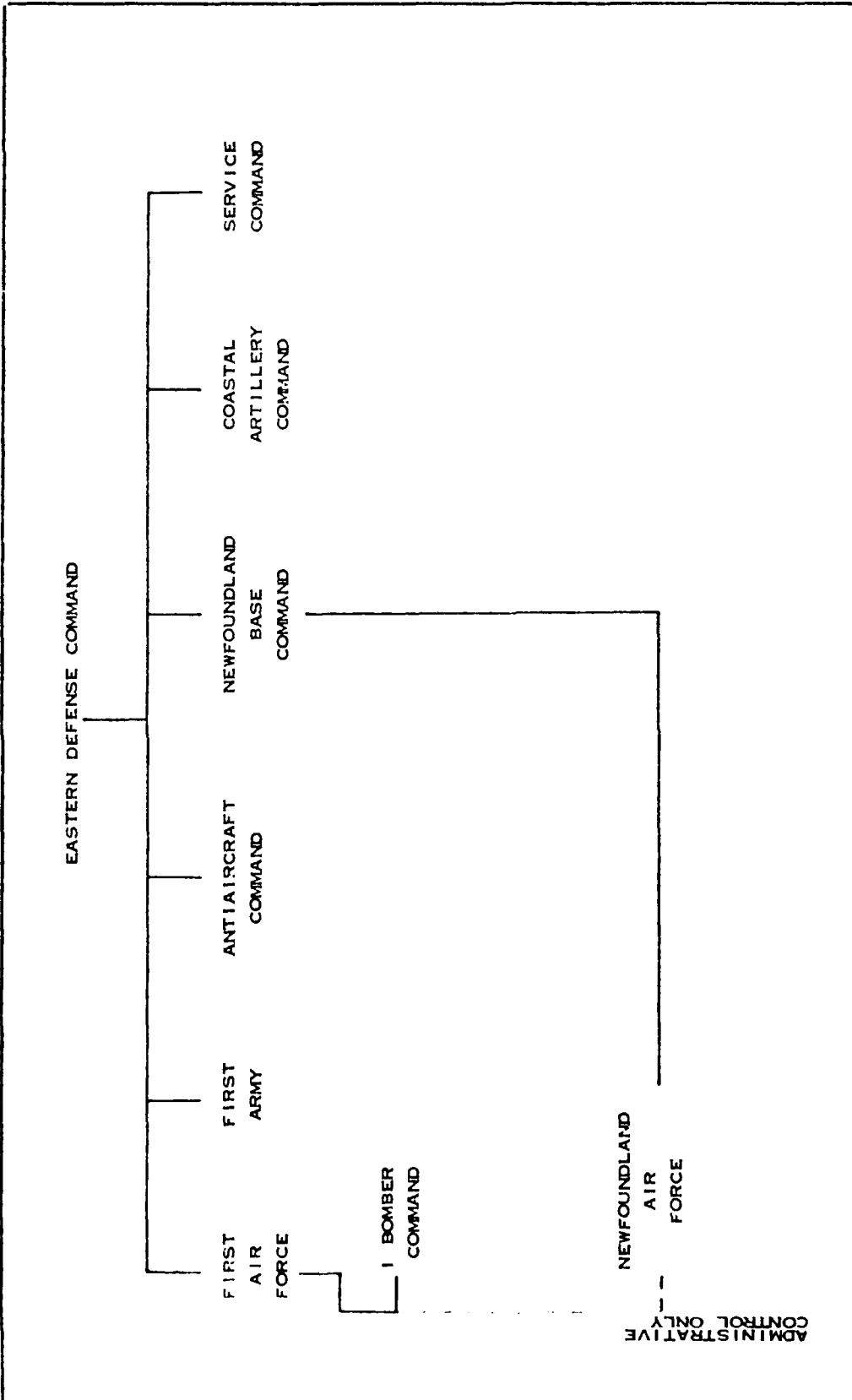


FIGURE 1. EASTERN DEFENSE COMMAND

primarily for flying convoy cover. They believed the presence of aircraft near a convoy would protect the convoy by keeping submarines submerged for extended periods of time (4:242). This required the submarines to deplete their battery power while trying to keep up with the convoy. The aircraft prevented the submarines from surfacing to recharge their batteries. The Navy's position of using the airplane in a defensive role was keenly expressed by Admiral King to General Marshall in a 21 June 1942 letter. Admiral King stated, "...escort is not just one way of handling the submarine menace; it is the only way that gives any promise of success..." (2:545).

The AAC had from the beginning questioned the use of airplanes in a defensive role for the protection of convoys (2:545). The Army believed this was a last ditch effort. They felt a well coordinated offensive by aircraft and surface craft could drive the submarines from an arena or restrict their operations until the damage from their attacks became negligible (13:2; 2:545). The faith displayed by the AAC in the offensive concept was strongly supported by the experience of the RAF's Coastal Command. In a report to Lord Halifax, the RAF Coastal Command Headquarters stated that the primary method of defeating the submarine was to seek and strike. To accomplish this, an air force should place its maximum effort in offensive attacks against the submarine while keeping the smallest possible force protecting convoys (7:10).

ing his frontier than moving airplanes to where the threat was increasing. This pointed imperatively to the need for change in the existing system of control. The March 1942 agreement did not meet the problem of deploying land-based aviation effectively in support of ASW operations. There was still no single commander - Army or Navy - responsible for the conduct of ASW. The result was a multiplicity of regional headquarters within a system designed for static defense. This command structure robbed the AAC of its primary advantage, mobility (2:542, 4:242). The AAC wanted a centralized command structure for the ASW campaign (2:544). Conversely, the Navy believed in and held strongly to the use of its frontier command structure for anti-submarine warfare.

The one AAC unit that did transfer to the Caribbean experienced constant frustration (8:130; 9:8). Part of the 40th Bombardment Squadron (1 Bomber Command), stationed at Mitchel Field, New York, was to be on temporary duty at Guantanamo, Cuba, for 10 days, but instead was transferred several times in the Caribbean by naval commands for 74 days. The naval commands at Vernam Field, Jamaica, Edinburg Field, Trinidad, San Juan, Puerto Rico, Zanderij Field, Dutch Guiana and Guantanamo did not understand the AAC equipment, training or mode of operations. They provided little intelligence information and kept their communications traffic exclusive. The temporary duty was a failure because the 40th Bombardment Squadron was assigned to patrol a certain sector, instead of being permitted to pursue an offensive role.

Another aspect of the dispute between the AAC and the Navy was whether to use the airplane in a defensive or an offensive role. Naval doctrine emphasized the basically defensive functions of convoy escort and the patrol of generally fixed sectors of coastal waters (2:545). The Navy wanted to use the planes

continue without severe impact on the war effort, it became apparent that a new strategy was required.

THE DISPUTE

As shipping losses increased in the summer of 1942, the American high command struggled with the fundamental problems of antisubmarine policy. As a result of the limited ASW campaign, the Army and Navy realized more land-based aircraft were required than could be supplied from the current production (2:538). The Navy's solution was to ask the Army to transfer airplanes from other AAC units to the Navy for the ASW effort. The Army Air Staff's dilemma was that they had to support the Navy while continuing to increase the strategic bombing of Germany (2:539). The Army was also worried about the transfer because the question of who would control land-based ASW aviation had not been answered. The AAC staff feared the transfer would appear that the Army had given up its control of land-based ASW aviation. To solve the transfer and ASW command problems, General Arnold, in a letter to Admiral King, Chief of Naval Operations, made two proposals. First, he suggested additional forces for ASW. Second, General Arnold felt the solution lay in the establishment of a coastal command similar to the RAF Coastal Command. The proposed command, uniquely trained and equipped for ASW, would report directly to the War Department and could operate "when necessary" under the control of proper naval authorities (2:540). There was no immediate reply to General Arnold's proposal.

By May, the submarine threat shifted from the Atlantic to the Caribbean and Gulf areas. However, no I Bomber Command units were immediately transferred to these areas because the AAC units were under the operational control of the Eastern Sea Frontier. The frontier commander was more concerned with protect-

air protection while the convoy traversed its area (4:207). The transfer of the I Bomber Command was directed by the Joint Chiefs of Staff and gave the sea frontier commanders jurisdiction over all naval forces and Army air units engaged in the protection of shipping and operations against enemy seaborne activities. This action was necessary because prolonged debate had made the FTP-155 agreement, which subordinated the AAC units to the Eastern Sea Frontier, weak and untrustworthy (2:528).

The persistence of respect by the Navy for sea frontiers, and even naval district boundaries, in planning air operations by long-range planes was one of the greatest handicaps that vigorous AAC antisubmarine airmen had to face in World War II (15:2). These naval jurisdictional boundary lines - called "chop lines" were a constant source of irritation to the Army airmen and they had to battle continually to overcome the "chop line" thinking of air operations (15:3). The 5th Naval District Commander drew up a defense plan in which he divided the district into three sectors, assigning the Army's planes to one sector. He further set up a surface striking force that could be summoned to attack submarines in any sector. Unfortunately, he did not recommend such an air striking plan (15:7). The commander's unexplainable division of the district into three sectors, and restriction of airplanes to a single sector vividly illustrated the "chop line" thinking Army airmen considered so detrimental to the mobility that was essential to ASW (15:8). This use of naval districts for command and control proved cumbersome and they were soon eliminated from the ASW chain of command, but not before the enemy realized the inadequacy of the ASW force. Enemy submarines struck heavily between January and July 1942. Nearly 1,400,000 tons of shipping were sunk in the Eastern and Gulf Sea Frontiers during this period (Table 2) (5:9). Since these losses could not

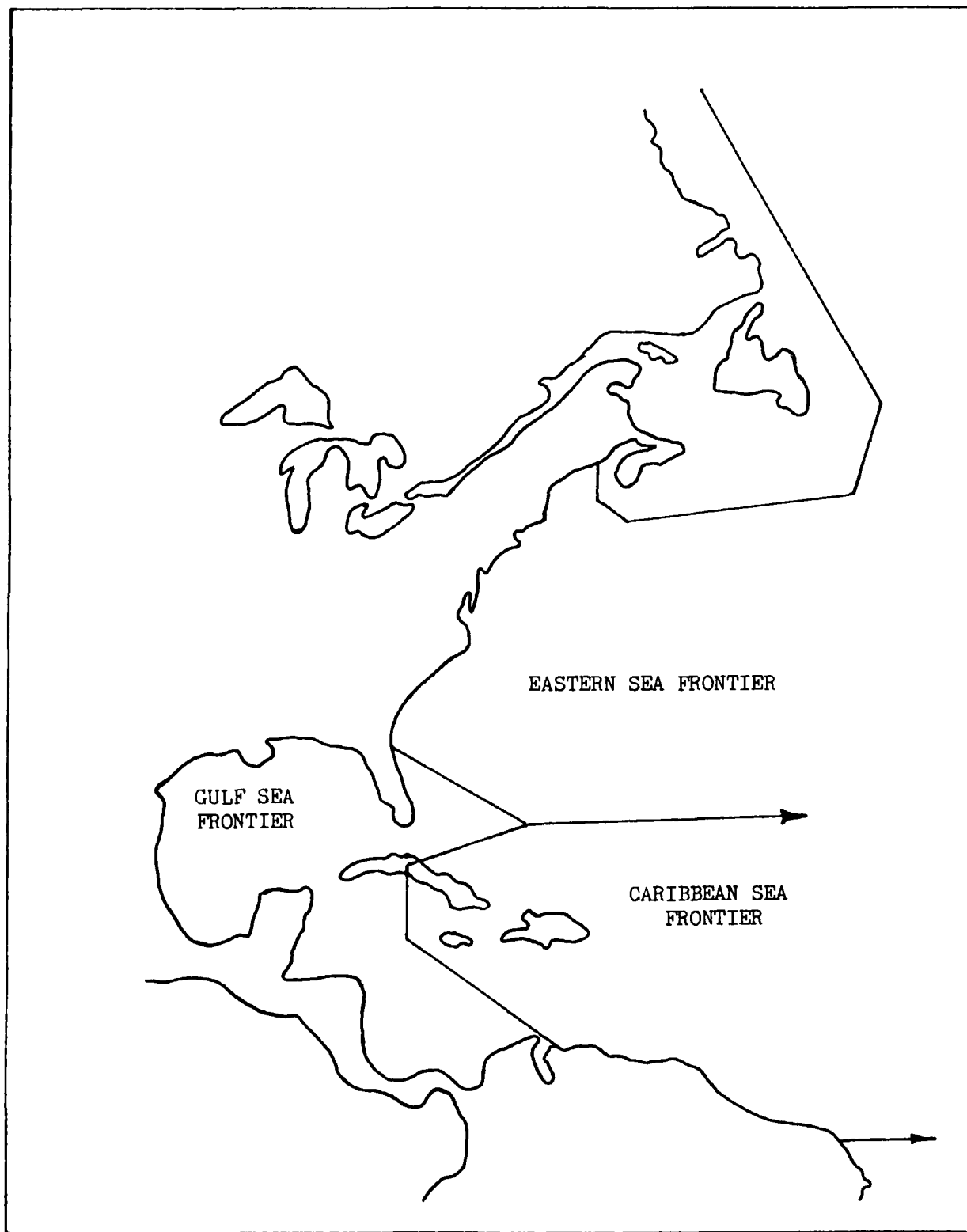


FIGURE 3. NAVAL SEA FRONTIERS

air (2:523). Table 1 gives a breakdown of the airplanes used by the command (9:8). In spite of the equipment, training and communication problems, the AAC began to have an impact. In January and February 1942, the AAC flew almost 8,000 hours and made four attacks on submarines. Unfortunately there was no apparent damage to the submarines. In March, the AAC flew as many hours as in the previous two months and attacked the same number of submarines (2:527).

Table 2 illustrates that with an increase in patrols, the attacks on submarines also increased (9:10). The table also shows that merchant ship sinkings were increasing at a rapid rate. This increase in sinkings raised some concerns about the command and control of ASW forces by the AAC and Navy.

<u>I BOMCOM</u>		<u>SHIPS SUNK</u>			
	<u>HOURS</u>	<u>U-BOATS</u>			<u>EST. AVERAGE</u>
	<u>FLOWN</u>	<u>ATTACKED</u>	<u>NO.</u>	<u>TONNAGE</u>	<u>DAILY</u>
					<u>U/B DENSITY</u>
JAN 42	3,134	1	13	92,955	3.4
FEB	4,766	3	19	128,585	5.9
MAR	7,247	4	30	193,478	5.7
APR	6,328	11	26	138,521	8.1
MAY	6,618	20	47	249,741	11.1
JUN	5,439	21	33	162,290	9.0

TABLE 2
I BOMBER COMMAND AND ENEMY ACTIVITY
EASTERN AND GULF SEA FRONTIERS

On 28 March 1942, the I Bomber Command was placed under the operational control of the Navy's Eastern Sea Frontier (10:1). Territorially, the area of Eastern and Gulf Sea Frontier control extended from the coast of North America seaward, for a space of approximately 200 miles. (FIGURE 3). The sole responsibility of a sea frontier to transatlantic convoys was to furnish

separated the Navy and AAC message handlers. In order to get timely updates, the AAC message handlers had to walk down a hallway to the Navy message center. But the Navy did not automatically inform the I Bomber Command that new messages had been received. The delays were critical. Often, the submarine had departed the area before the sighting information was relayed to the I Bomber Command squadrons.

By the middle of January 1942, the I Bomber Command was flying patrols twice a day in the Western Atlantic. Three patrols flew from Westover Field, Massachusetts, Mitchel Field, New York and Langley Field, Virginia, to a distance of 600 miles out to sea. But inefficiency prevailed; the command used half of its equipment to support the flights (5:5). Adding support were airplanes from the I Air Support Command, a subunit of the I Bomber Command. They

<u>TACTICAL AIRCRAFT</u>								NO. WITH RADAR
DATE	DB-7B & A-20	A-29	B-17	B-18	B-24	B-25	B-54	
DEC 1941	--	15	12	20	--	13	--	●
JAN 1942	55	--	11	13	--	43	--	●
FEB	55	17	12	9	--	26	--	●
MAR	50	16	11	23	--	29	--	4
APR	50	26	5	23	--	31	--	16
MAY	47	16	15	22	--	27	--	33
JUN	45	25	14	26	--	40	--	22

TABLE 1
TACTICAL ARMY BOMBARDMENT AIRCRAFT IN USE

operated during daylight hours and flew up to 40 miles offshore from Portland, Maine, to Wilmington, North Carolina. The flights lasted anywhere from two to three hours. At any given time, there were only ten of these planes in the

adapt its equipment to meet the new tasking. Owing to the urgent need for ASW patrols, the aircrews accomplished their training during operational missions, learning most of the new techniques through actual combat experience (2:526). Fifth, most of the planes available were not suited for ASW patrol. Of the 122 planes on hand by January 1942, only 67 were capable of long-range patrols. They consisted of B-17s, B-18s and B-25s. Finally, the mission capable planes were equipped with demolition bombs rather than depth bombs. Even though it lacked proper training and equipment, the AAC found itself extensively committed to ASW patrol because other forces were neither available nor competent for the task (2:514).

COMMAND AND CONTROL

Fortunately, the command got a one-month reprieve before the German submarines began appearing off the Atlantic Coast. This delay allowed the I Bomber Command and the Eastern Sea Frontier time to organize. Brigadier General Krogstad, head of the I Bomber Command, immediately organized a wire communication service to all of the command's bases and established an intelligence system from its headquarters to all squadron operations rooms (2:524). Third, it helped complete a joint Army-Navy control and information center, work that had been in the planning stage for six months. The center, located adjacent to Eastern Sea Frontier Headquarters in New York City, had a message center, a coding room and teletype room for the EDC and First Air Force. It proved to be a valuable contribution to the war effort and became a model for similar joint control rooms later in the war (5:2). While the joint control room was established to coordinate ASW operations, on numerous occasions submarine sighting information was delayed for several hours by the Navy before it was given to the I Bomber Command. The problem resulted because a wall physically

United States (8:1). Ironically, when the Navy pressured the Army to undertake offshore patrol duties, the I Bomber Command was stripped of its best-trained units for strategic bombardment missions overseas. In order to fulfill its latest tasking, every available plane in the First Air Force capable of carrying a bomb load was drafted to augment what remained of the command. As a result, approximately 100 twin-engine aircraft of various models were assembled and placed at the disposal of the NACF commander (2:523).

The Army Air Forces were seriously deficient in ASW operations (2:524). The charge that Army pilots were not properly trained and their equipment inadequate is unquestionably true. There are many reasons for this. First, none of the pre-war discussions suggested the Army would be tasked for this type of work (9:1). Pre-war plans had specifically assigned over-the-water air operations to the Navy and placed severe restrictions on Army offshore flights. Second, aircrews did not get instruction in ship recognition or in the best methods of attacking submarines (5:8, 15:9). This lack of knowledge in ship recognition led to several embarrassing incidents where allied ships shot at AAC aircraft. To solve this problem, AAC pilots were warned that British merchant ships would fire at aircraft approaching them and that caution should be used in approaching these ships (8:87). Third, added to the problem of unpreparedness was the fact that most of the aircrews involved were still in training status (2:524). Many of these crews were new to the I Bomber Command because of its loss of all of its bombardment groups except one. Additionally, the command had to absorb two new bombardment groups and two reconnaissance squadrons early in 1942. These units were, for the most part, untrained both in normal bombardment techniques and the special tactics of ASW. Fourth, the command's problem was compounded when it had to reorient its training and

determined. The limited experience of the two squadrons, 21st and 41st, later influenced the I Bomber Command's tactics for attacking submarines.

Available defenses against enemy submarine attacks on the Atlantic Coast were pitifully small at the outbreak of the war. These defenses consisted of 20 surface vessels and 103 aircraft assigned to the Commander, NANCEF, redesignated the Eastern Sea Frontier in February 1942. In the case of the surface craft, the enemy submarines were faster and had longer range guns. The aircraft had a similar disadvantage. Ninety of the 103 were trainers, scouts or transports, unsuitable for antisubmarine operations (5:3). In a letter to the Chief of Naval Operations (CNO), the NANCEF commandant stated he had no planes capable of long-range patrols (2:522). With little hope of increasing his resources from naval sources, the NANCEF commandant asked the commander of the EDC to begin offshore patrols. Thus, aircraft of the Army Air Forces were thrown into submarine work to meet a serious emergency at the beginning of the war (9:1). This method of cooperation between the EDC and NANCEF was rooted in FTP-155 and earlier discussions (5:3). As a result of war games in 1940 and 1941, the generalizations of FTP-155 regarding patrol areas were cleared up. Coastal frontiers with geographical limits were established and provisions were made for liaison between the Army and Navy. This liaison led to the proposal to establish a joint Army and Navy control and information center.

On 8 December 1941 the I Bomber Command, a part of the First Air Force and consisting of bombardment and reconnaissance squadrons, began official ASW operations off the eastern coast of the United States (10:1). Since their inception, the I Bomber Command and First Air Force had been primarily responsible for training. However, their association with the EDC and Eastern Sea Frontier expanded the mission to include the aerial defense of the eastern sector of the

Chapter Two

THE ARMY AIR CORPS CALLED TO WAR (APRIL 1941 - JULY 1942)

THE CALL

The AAC had actually begun action against enemy submarines several months before the official declaration of war. This action took place in Newfoundland in April 1941 where the 21st Reconnaissance Squadron was patrolling in cooperation with the Royal Canadian Navy and Air Force and the Royal Navy. The 21st did not sight any submarines before it rotated to the United States in September. The 21st was relieved by the 41st Reconnaissance Squadron, a "separate" unit of the First Air Force (8:61). Even though the First Air Force had administrative control, the 41st was considered a separate unit because it was under the command and control of the Newfoundland Base Command, EDC. (FIGURE 1). The 41st was also unique in that it had "verbal" orders, limitless operational boundaries and access to British tactics in ASW (8:62-63). Its verbal orders resulted from the fact that the squadron had no written instructions concerning submarines. As the air arm of the Newfoundland Base Command, the 41st could patrol any area and attack submarines at the discretion of the squadron commander. Every morning, the squadron would discuss intelligence reports with the British and Canadians and agree on which area to patrol. This was similar to the operation of the RAF Coastal Command. In effect, the 41st conducted offensive ASW operations. One month later, on 26 October, a crew of the 41st attacked a submarine. Results of the attack were never

When the service finally recognized the problem, training was too late to be effective. By 1941, few naval officers had received ASW training (4:209, 2:521). A second reason was that the AAC did not expect to include ASW among its duties (4:237). This fact is documented in Army correspondence that states, "no reconnaissance measures by the Army are contemplated for the specific purpose of locating belligerent vessels or aircraft except when local Army and Navy joint agreements have been reached" (14:1). Finally, prior to 1939 the AAC had been restricted from proceeding more than 100 miles beyond the shore line. This 100-mile restriction came initially from the Navy and was imposed as a result of an agreement between the Chief of Naval Operations and the Chief of Staff, U.S. Army. After 1939, the 100-mile limit could be waived provided that special arrangements were, in each instance, made "well in advance" (1:252). The Army managed to circumvent this restriction by insisting that reconnaissance flights were essential to its own combat efficiency as a striking force (2:521). Officially, however, these flights had to be called "tactical reconnaissance" in order to avoid any confrontation with the Navy over an infringement of their offshore patrol function (12:1).

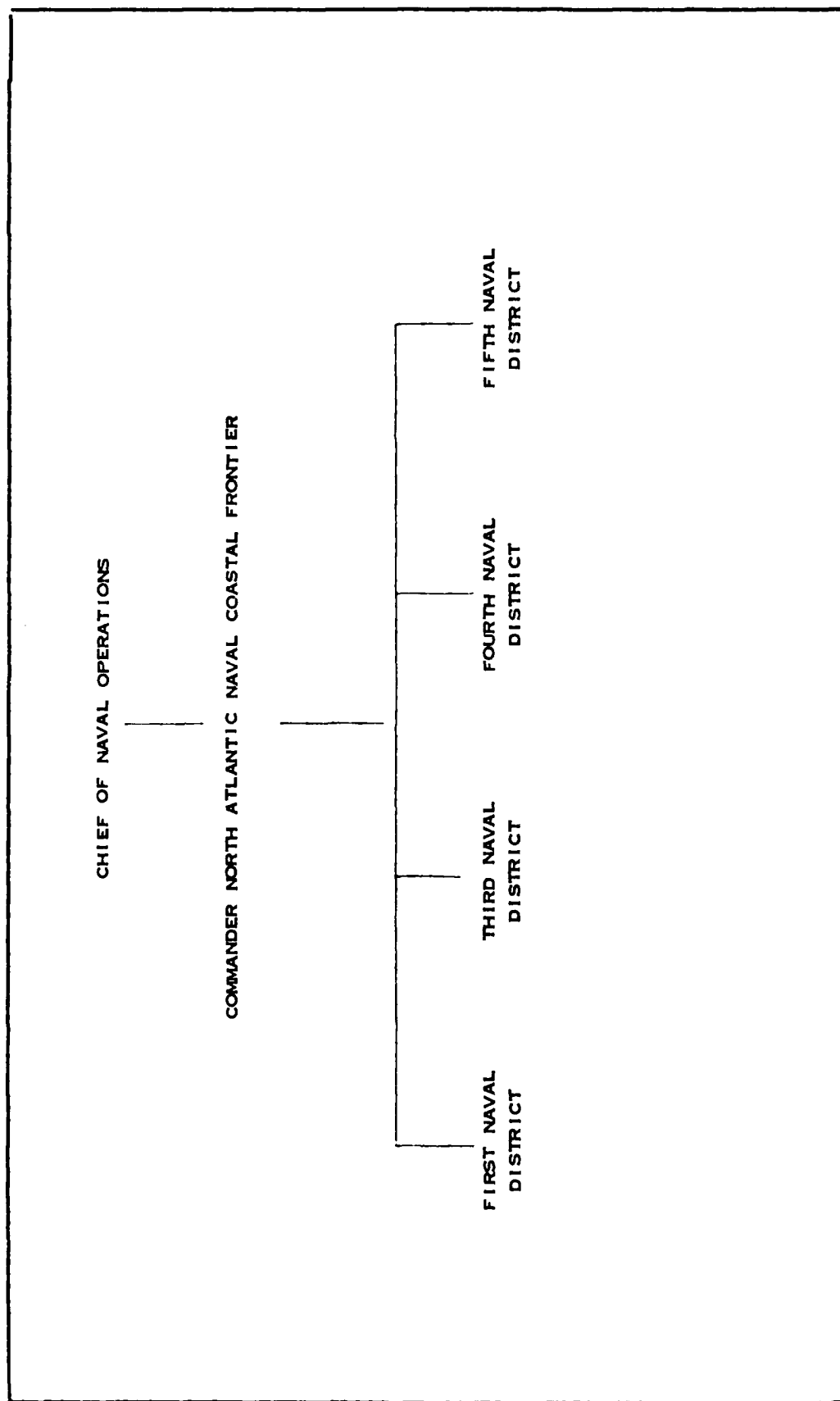


FIGURE 2. NORTH ATLANTIC NAVAL COASTAL FRONTIER

District, did not have full command and control of the ships and aircraft in his frontier. (FIGURE 2). Each district commander owned his particular resources and did not readily loan them to neighboring districts; moreover, these resources could not be operated in another district without prior consent. Agencies often operated independently of each other. These problems created an immediate need for a unified plan of action within the NANC and Eastern Defense Command.

THE GROWING THREAT

As the Army and Navy continued their discussions on the question of command responsibility, the German threat to allied convoys grew. During the period from September 1939 to March 1941, the German submarines concentrated their attacks north and south of the British Isles. Because of the size of the convoys and narrow seas around Britain, ships were easy prey for the submarines. Typically, the transatlantic convoy of 1939-1941 consisted of 45 to 60 merchant ships steaming in nine to twelve columns, with 1000 yards between columns and 600 yards between ships. A nine-column convoy would, therefore, present a frontage of four nautical miles and a depth of one and a half miles or more, depending on the number of ships (4:19). The British, however, drawing on their World War I experience, were prepared for ASW when the war in Europe broke out in 1939 (4:209). The Coastal Command of the Royal Air Force (RAF) and small antisubmarine craft became so proficient in combatting the submarines that by the time the United States entered the war, the western approaches to the British Isles were relatively safe (4:209, 237).

But the United States was unprepared for ASW for several reasons. The U.S. Navy, who had responsibility for protection of coastal shipping and off-shore patrol, had neglected specialized training until 1937, to protect convoys.

Chapter Three

THE ARMY AIR CORPS ON PATROL (JULY 1942 - MARCH 1943)

THE SUMMER CAMPAIGN

Army Air Corps antisubmarine operations fell into three broad categories: routine patrol of areas in which the threat of enemy action existed, special patrol of an area in which a particular submarine was known to be lurking, and escort duty of convoys sailing within range of land-based aircraft. Routine and special patrols constituted the offensive campaign (2:533). By mid-summer 1942, the submarine activity in the western Atlantic had begun to decrease and shift to the Caribbean (Table 3), but the I Bomber Command continued to patrol in the western Atlantic (9:10). Even though the number of flying hours remained fairly constant, the number of attacks on submarines decreased substantially. Armed with these statistics, the AAC tried to convince the Navy to shift more I Bomber Command aircraft to the Caribbean area. The Navy

<u>I BOMCOM</u>				<u>SHIPS SUNK</u>	
	<u>HOURS FLOWN</u>	<u>U. BOATS ATTACKED</u>	<u>NO.</u>	<u>TONNAGE</u>	<u>EST. AVERAGE U/B DAILY DENSITY</u>
JUL 42	6,799	11	18	73,700	14.9
AUG	5,686	6	3	9,489	8.5
SEP	6,822	3	1	6,511	4.7
OCT	6,410	1	0	0	2.2

TABLE 3
I BOMBER COMMAND AND ENEMY ACTIVITY
EASTERN AND GULF SEA FRONTIERS

rejected the proposal; it feared the submarines might return. The Navy wanted to be fully prepared for such an event. Officials had not considered shifting aircraft from one area to another as the situation demanded. Fortunately, the aircraft patrols had at least succeeded in protecting the fleets from submarines. By October 1942 no ships had been sunk in the Eastern or Gulf Sea Frontiers (Table 5), a result of the I Bomber Command's unilateral decision to shift some units to the Gulf of Mexico as early as June 1942 (9:8, 5:14); moreover, the quality and experience of the American ASW effort had increased rapidly. The enemy, recognizing the increasing effectiveness of the American antisubmarine operations, shifted its forces to the Caribbean where the relatively new and inexperienced Sixth Air Force, Caribbean Defensive Command (Army), and Caribbean Sea Frontier were based for ASW (8:112).

THE ARMY AIR FORCES ANTISUBMARINE COMMAND

The Navy's defensive strategy and rigid command structure continued to frustrate the Air Corps. The leaders of the AAC were not alone in their displeasure over the ASW command structure. As early as May 1942, the War Department, foreseeing the Army's prolonged involvement with ASW, recognized the need for unity of command. In a memo to Admiral King, the Army's Deputy Chief of Staff outlined a plan for reorganizing the antisubmarine program (2:546). The CNO replied that he wanted no change to the existing sea frontier command structure. In June, General Marshall sent a memo to Admiral King expressing his concern with the shipping losses and the lack of progress in the reorganization of the ASW effort (2:547). One month later, both the Secretary of War and the Secretary of the Navy readdressed the question of antisubmarine warfare organization. The Secretary of War suggested that a single command be established to coordinate the ASW campaign. The Secretary of the Navy disagreed; he repeated

the Navy's position that more airplanes and ships were the solution, not a reorganization of sea frontiers (2:549). The Air Corps sided with the Secretary of War's position. The discussions were productive. General Marshall sent a memo to Admiral King in September informing him of the activation of the Army Air Forces Antisubmarine Command (AAFAC). Official activation occurred on 15 October 1942. General Marshall created the AAFAC because the I Bomber Command's experience indicated that effective ASW demanded freedom from area restriction in the Navy's command structure (11:1). Several important points were made in General Marshall's memo. The primary mission of the AAFAC was to destroy submarines. Moreover, the command would be under the centralized control of the War Department so that it could be moved in part or as a whole as the situation dictated. Finally, the AAFAC would depend heavily on naval intelligence. The memo also implied that the Navy could exercise operational control over the Army's resources when the AAFAC operated in the sea frontiers (11:2; 5:17).

The newly activated AAFAC was composed of the same operational squadrons and equipment as the I Bomber Command. Since its squadrons had long been advocates of an offensive campaign against enemy submarines, the AAFAC was eager to go on the offensive (9:24). In November 1942, the AAFAC organized its squadrons into two wings, the 25th and 26th Antisubmarine Wings, and headquartered them in New York and Miami, respectively. The 25th Wing controlled the squadrons stationed between Jacksonville, Florida, and Manchester, New Hampshire, while the 26th Wing controlled the squadrons between Lantana, Florida, and New Orleans, Louisiana (11:6). By 31 December 1942, an average of twenty squadrons operated with approximately twenty-two Navy air squadrons in the Eastern and Gulf Frontiers (10:1).

The Army Air Forces Antisubmarine Command operated in unison with the

movement of the enemy. As ASW pressure increased in American waters, the submarines shifted to the middle and eastern Atlantic to stay out of the reach of the aircraft patrols. Initially, the AAFAC was restricted to patrol in the Eastern, Gulf and Caribbean Sea Frontiers; however, by December 1942 the War Department allowed the command to patrol wherever submarines might be operating against the allies (5:379). To handle this responsibility, the AAFAC had a strength of 209 planes: 20 B-24s, 12 B-17s and 125 B-18s, B-25s, A-29s and B-54s. The remaining 52 aircraft were observation planes unsuited for anti-submarine missions. The first units to be deployed overseas were the 1st and 2nd Anti-submarine Squadrons. The AAFAC hoped these squadrons would be the nucleus of the 1st Army Air Forces Antisubmarine Wing to be stationed in England. Plans called for the 1st Wing to operate against the submarines in the Bay of Biscay. Since the German submarine pens were located in France, the submarines traversed the Bay of Biscay, adjacent to France on the Atlantic Ocean, to get to the middle Atlantic and Mediterranean Sea. In England, the 1st and 2nd Antisubmarine Squadrons, later designated the 480th Antisubmarine Group, conducted offensive ASW operations with the RAF's Coastal Command in the Bay of Biscay from 6 to 16 February 1943. The operation was a milestone for the AAFAC because the 480th Antisubmarine Group accounted for 14 sightings and 9 attacks. More importantly, the operation gave an indication of what an effectively organized offensive campaign could accomplish against submarines (5:382-383). Since enough resources could not be combined to form the 1st ASW Wing, the 480th remained a group and was transferred to Morocco to operate under the U.S. Navy. A similar overseas operation was conducted by three squadrons of the 25th Antisubmarine Wing. The squadrons originally began operations from Newfoundland in March 1943, but eventually transferred to

England and formed the 479th Antisubmarine Group (11:6; 3:378).

Chapter Four

THE ARMY AND AIR CORPS IN TRANSITION (MARCH 1943 - SEPTEMBER 1945)

AN UNSETTLED QUESTION

By March 1943 enemy submarines from the U.S. Atlantic and Gulf coasts had concentrated almost exclusively on the mid-Atlantic convoy routes. The number of merchant ship sinkings in January had been a low of 30, but took a dramatic jump to 50 in February. As the number rose to 110 by March, President Roosevelt and the Combined Chiefs of Staff took action by convening a conference to discuss convoy losses. During the March Atlantic Convoy Conference in Washington, D.C., the Combined Chiefs of Staff made the submarine question their number one item on the agenda (3:387). During this meeting Admiral King once again presented the Navy's strategy of defensive ASW. He made it explicitly clear that discussions should center only on convoy escort as the sole method of protecting allied shipping (15:26-27). The British who, like the Army, had been using an offensive ASW strategy, felt it imperative that the submarine menace be handled by search and destroy operations (15:27). The Navy's viewpoint prevailed at the conference and the majority of the available airpower was relegated to flying defensive convoy cover. The AAC complied with the conference's decision and diverted additional B-24 aircraft to the ASW effort, but this action was a compromise to prevent the diversion of operational bombers from the Eighth Air Force's strategic bombing effort in Europe (15:40).

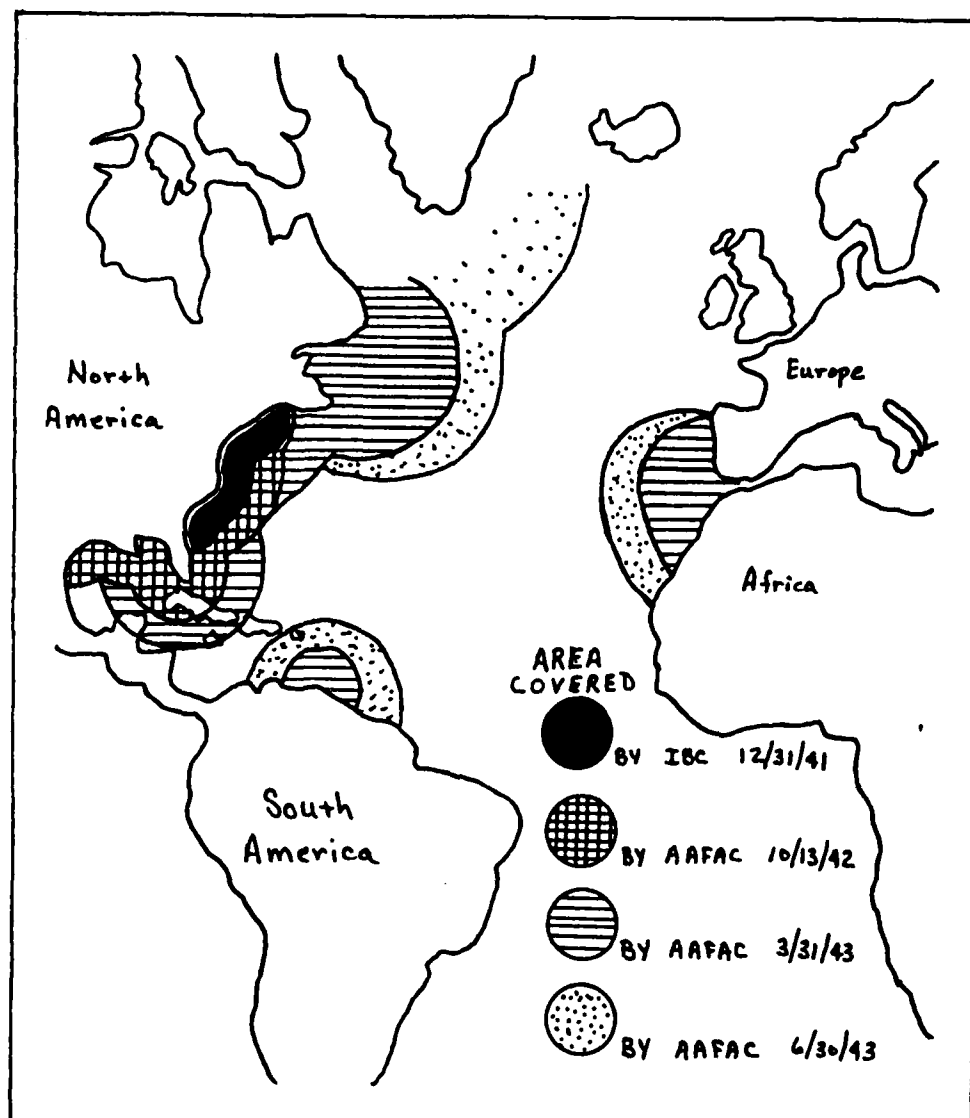


FIGURE 4. AIR CORPS PATROL AREAS

By July 1943, the Army Air Forces Antisubmarine Command was enjoying mixed results with its ASW operations (FIGURE 4). The operations in the western Atlantic consisted of purely defensive convoy escort; the ones in the eastern Atlantic, offensive ASW patrols. The efficiency of the squadrons operating in the Caribbean, Gulf, and Eastern Sea Frontiers - the majority of the ASW units - was low. Few submarines were sighted during the thousands of hours spent on airborne patrol. An average of 8,431 hours had to be flown to get an attack. Conversely, the six squadrons of the 479th and 480th Antisubmarine Groups sighted a submarine every few hundred hours. They attacked a submarine, on the average, every 370 hours (9:24). The six AAFAC squadrons flying offensive ASW operations in the eastern Atlantic were doing so at the request of the RAF. The 479th ASW Group, after being relieved of ASW duties in Newfoundland in July 1943, began operating from England under the control of the RAF's Coastal Command (3:394).

By this time, the RAF stepped up its Bay of Biscay campaign begun in February. The 479th, employing offensive tactics, was extremely active and averaged a submarine sighting every 44 hours. From 14 July to 2 August, the unit was credited with 12 sightings, 7 attacks and 3 kills. The Bay of Biscay offensive proved so successful that the enemy changed its tactics. The submarines, instead of submerging, began to use antiaircraft fire against the AAFAC planes. To add to their protection when running on the surface, the enemy used airplanes to escort the submarines through the bay. The airmen of the 479th moved the tail guns to the nose of the B-24s, thereby concentrating the available firepower against enemy submarines and aircraft. This maneuver limited the enemy's aggressiveness, and their submarines avoided the B-24s whenever possible. The offensive campaign in the Bay of Biscay was so successful

that the submarine force in the eastern Atlantic had thinned dramatically by early August. Thereafter, the 479th spent the majority of its time fighting enemy planes.

The 480th Antisubmarine Group fought in a similar operation off the Moroccan coast. The Atlantic just west of the African coast experienced an increase in submarine activity due to the allied invasion of North Africa, heavy ASW patrols in the middle Atlantic and mounting pressure in the Bay of Biscay. The 480th had arrived in Morocco in March 1943, but did not achieve success until July. Initially, the group was limited to patrolling the waters near Gibraltar and Casablanca. When the group was finally permitted to fly long-range patrols in July, it made ten times as many sightings per flying hour as the short-ranged Navy aircraft. During the ten day period from 5 to 15 July, the group sighted 15 submarines, attacked 13 and sank 3. Several other submarines were damaged. Like the 479th, the 480th also encountered increased enemy resistance from aircraft and antiaircraft fire. After a while the submarines ceased to fight with antiaircraft guns, and resorted to dives to escape the 480th's attacks (3:398).

The Army's faith in offensive strategy was based in part on its 1941 Newfoundland experience and that of the RAF's Coastal Command. Throughout the ASW campaign the Army Air Corps, I Bomber Command and AAFAC had consistently proposed offensive plans. The Army had submitted a two-part plan in April 1943. This plan allowed the AAFAC to move all its units to any area and conduct ASW operations in cooperation with other forces in the area. As an option, the plan also allowed the creation of a small task force operating much like the larger AAFAC, to conduct offensive ASW operations. The remaining AAFAC units would continue supporting the defensive strategy of the established sea frontiers.

This plan, the last one proposed by the Army, was rejected by the Navy. Except for the six squadrons deployed overseas, the AAFAC squadrons were still conducting defensive patrols under the operational command of the Navy's sea frontiers.

The AAFAC's efforts were not in vain. The Secretary of War once again became interested in the ASW effort. In a repeat of the developments that had occurred in 1942, the Secretary of War asked his special consultant, Dr. Edward Bowles, to study the effort and recommend some improvements. In April 1945, Dr. Bowles came to the conclusion that all ASW forces should be placed under the direction of one person to eliminate the divided command structure between the Army and Navy. General Marshall, Chairman of the Joint Chiefs of Staff (JCS), submitted a plan that created a unified ASW command whose commander would work directly for the JCS (3:390).

The Navy balked at the idea and responded with an alternate proposal the next month. This proposal created the Tenth Fleet which would control all ASW activities in the U.S. Fleet. Additionally, the Tenth Fleet, reporting directly to the CNO, would have direct command over all sea frontiers and use them to direct all aircraft activities in support of ASW (3:390). While the Navy's plan was good, it had flaws. It failed to place the ASW forces, especially land-based aircraft, under the JCS and left the Navy's cumbersome command structure intact for the employment of airpower. The plan caused some concern in the AAC because it left room for the possible use of the Tenth Fleet throughout the Pacific (3:391).

After considerable arguments from all sides, the Tenth Fleet plan was approved by the JCS, but it did not solve the question of command and control of land-based aviation. As a condition to acceptance of the Navy's Tenth Fleet

plan, General Marshall required that the air commander be an Army officer. Admiral King, however, did not like the idea of the Army directing the use of Navy planes. King began to stall (3:405). By May 1943, the U.S. anti-submarine warfare effort had become entangled in the larger issue of which service would control all land-based long-range aviation. In the eyes of the AAC, the Navy's request for more and more long-range airplanes implied strategic offensive operations, an infringement of the AAC mission. The Navy, on the other hand, justified the request for these planes with the need for long-range aircraft to conduct ASW convoy escort. Air Corps and War Department personnel believed the Navy's request would lead to needless duplication of the AAFAC's capability. What had originally begun as a question of operational control over all ASW aviation had led to the bigger question of which service would be responsible for all land-based air forces (3:404).

THE DECISION

As the War Department, Navy and Army continued debate over duplication of effort and unity of command, the ASW effort lost momentum. General Marshall became concerned and pressed the Army and Navy for a final decision. In June, General Arnold, the Air Corps representative, Rear Admiral McCain, and Lt. General McNarney of the Army Staff met to resolve the issues. They agreed the AAFAC would withdraw from ASW operations when the Navy was ready to assume the duty. The Army's primary responsibility would be the control of long-range strategic bombardment aircraft. In return, the Navy would relinquish all claims to the control of long-range air forces operating from shore bases. They would also avoid strategic bombing. In summary, the Navy retained unquestioned control of all forces employed by the fleet air wings in ASW

operations (3:407). However, Admiral King still had doubts about giving the Army the exclusive right to command and control long-range air forces, so he once again employed the tactic of delaying approval of the agreement. General Marshall grew impatient with Admiral King. General Marshall knew that delaying a decision on command and control would perpetuate the Army-Navy conflict and impact the war effort by causing further unnecessary shipping losses. After personal intervention by General Marshall, the June agreement was approved by the Navy (3:408).

Following the July acceptance of the plan, the Air Corps began a rapid withdrawal from ASW participation. Both services drew up a schedule to begin the transfer of 77 B-24s to the Navy, signaling the eventual transition of the entire ASW operation to the Navy (3:409). The AAFAC was deactivated on 24 August 1943. It was redesignated the I Bomber Command and came under the authority of the First Air Force and Eastern Defense Command (6:82-83; 8:xviii). At deactivation, the AAFAC had 286 aircraft and 25 squadrons (11:7). The

planes included:	B-24	187
	B-25	80
	B-17	12
	B-34	<u>7</u>
		286

Even though the command had been deactivated, transfers weren't completed until early October. At deactivation, the majority of the 25 squadrons, especially those in the continental U.S., were transferred to the Second Air Force. Some of the squadrons in England were incorporated into the Eighth Air Force. However, a few squadrons from the 479th and 480th Antisubmarine Groups remained on ASW duty as late as November before the Navy could relieve them (3:409).

With the withdrawal of these squadrons, the AAC participation in World War II ASW operations came to an end.

The Army Air Corps contributed significantly to the antisubmarine effort during World War II. In spite of the fact that the Air Corps was unprepared for its role in antisubmarine warfare and met with strong opposition from the Navy over tactics and control, it adapted quickly and became a deterrent force. It helped to drive enemy submarines from the western and eastern Atlantic while reaffirming the flexible and mobile capabilities of the airplane. The Army Air Corps clearly demonstrated that offensive tactics were essential in combatting submarines. The Air Corps had finally earned the respect of the Navy and was given major credit for dramatically reducing the submarine threat to allied shipping.

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