

AFEHRI File 100.104

Research Materials/Source Documents
STUDENT PAPERS

FILE TITLE: The Radio Operator-Gunner Enlisted Crewmember During WW II

AUTHOR: SMSgt R. W. Holley, SNCOA Student, 19 Feb 1992

Reviewed by:

AFEHRI Representative G.R. Akin date 30 DEC 97

EPC Representative [Signature] date 7 Jan 98

Scanner Operator [Signature] date 7 Jan 98

APPROVED BY:

Gary R. Akin

GARY R. AKIN, CMSgt, USAF

Director

Air Force Enlisted Heritage Research Institute

File 19-3.2
AB

BACKGROUND PAPER
ON
THE RADIO OPERATOR/GUNNER ENLISTED
CREWMEMBER DURING WORLD WAR II

Enlisted aircrewmembers have been a part of the United States Air Force and its predecessors since the days of balloons. Very little is written about their contributions -- except for the heroic deeds of a few. This paper has been written about the radio operator/gunner crewmembers that served in World War II (WWII). These individuals provided essential communications for bomber aircraft during the war and served as aerial gunners, defending their aircraft against enemy fighters. I'll start with the years leading to WWII and how the need for this crew position came about. Next I'll discuss the selection process and qualifications required for radio operators and gunners as well as their training. Finally, I'll discuss combat assignments, duties, and responsibilities, and the disposition of the airmen after completing their combat tours. With this outline established, I would like to start with the conditions that led to radio operators becoming aerial gunners.

The United States Army Air Corps underwent a great deal of change during the period between World War I and World War II. The philosophy of air warfare changed completely under the influence of General Billy Mitchell and the findings of The Baker Board. Both emphasized the need for an independent air force to

SMSGT Holley/SNCOA/4374/rwh/19 Feb 92

control sea lanes, defend the coast, or produce decisive results in any mission contemplated to support the policies of the United States Government. Therefore, a very large and independent force was needed to defend our country against an air attack.

Unfortunately, in the early 1930s, the War Department opposed aircraft such as the B-17 bomber and it galled the American public to pay for such extravagant aircraft. Hitler's advances in Europe throughout the 1930s and the emergence of the powerful Luftwaffe soon changed these feelings as well as the history of the world.

Heavy bombers were among the first new aircraft purchases of the newly created Army Air Force (AAF). The B-17 bomber was the mainstay of the AAF throughout the late 1930s and early 1940s. It was a large aircraft for the times, it carried up to 4000 pounds of ordinance, and bristled with defensive gun positions. As bomber aircraft became more advanced, they carried more bombs and had even more defensive gunnery capability. Every member of the combat crew had a vital responsibility in executing the aircraft's mission. When a bomber was under attack by hostile fighters, it was the aerial gunner who defended the lives of his team mates. Defensive gunnery was primarily the job of an enlisted crewmember.

As the U.S. started to mobilize for WWII, the AAF realized it was ill prepared for aerial combat that placed its heavy bombers against a highly trained and seasoned enemy air force. In the summer of 1941, two Air Corps officers were sent to Great Britain where they made an extensive study of Royal Air Force

gunnery schools and of the aerial gunner in combat. They recommended combat crews should be trained together after a certain point in their training, gunners should be more versatile, and that radio operators should get gunnery training in addition to their specialty (10:--). This suggestion was supported and implemented by Colonel Eaker in September of 1941 (10:--). This was the inception of the radio operator/gunner enlisted aircrewmember. But how did the AAF recruit and train these individuals?

A man enlisting in the Army during WWII was being guided to an appropriate and specific job during the entire recruitment, enlistment, and basic training process. Army reception centers administered a battery of tests to determine the job experience and mental capabilities of recruits. These included a general classification test, a mechanical aptitude test, and a radio aptitude test (5:--). All men who scored an 85 or higher on the classification test were given a test to indicate their ability to master Morse Code (5:--). Once an enlisted man reached an AAF Basic Training Center, the classification process continued. Recruits were divided into three categories determined by inductance test scores and a physical exam. Men with superior physical qualifications (contained in AAF Regulation 35-17) were needed for combat crew training programs (14:--). These qualifications were quite stringent at the beginning of the war.

The desired qualities for an enlisted flyer were inflexible at the start of WWII. An applicant had to be a volunteer between the ages of 18 and 30, and have an eighth grade education (14:--).

Also, he could be no taller than 5 feet, 10 inches, and weigh no more than 170 pounds (6:12). His classification test score had to be at least 100 and he had to satisfactorily complete the mechanical aptitude test (6:12). In 1943, as volunteers for combat crew duties were hard to find, the height and weight requirements were raised to 6 feet and 180 pounds (2:--). Individuals who met these requirements and showed an aptitude in Morse Code were sent to Radio Operator Mechanic School to train as a radio operator.

Scott Field, Illinois was the primary training location for all radio operators during WWII. Its primary function was to produce capable radiomen for bomber crews (4:--). The training syllabus progressed from Morse Code to B-17 familiarization classes. Students received training in basic electronics, transmitters and receivers, aircraft equipment installation, and first aid. A total of 720 training hours were required to graduate from the radio school (3:--). This normally took five to six months depending on the class size and availability of training equipment (1:7). Combat had claimed so many lives by 1943, that it became necessary to open another school at Truax Field in Wisconsin (4:--). Once a radio operator completed school at either Scott or Truax he was sent to a gunnery school.

Prior to 1941, there were no specialized flexible gunnery schools. However, a five week course was adopted by the Chief of the Air Corps in March of 1941 (6:5). Over a four year period, seven schools produced nearly 215,000 aerial gunners (6:11). Initially, gunners volunteered for combat duty. In 1943,

volunteers became scarce primarily due to the tales told by combat veterans, and the voluntary system was eventually abandoned (6:15). After that period, only radio operators, armorers, and aircraft mechanics were allowed to become aerial gunners (6:15). Once assigned to a gunnery school, the pace was hectic.

Gunnery school was high paced and grueling. The training started with equipment familiarization so in-depth that a blindfolded gunner could field strip and reassemble a 50 caliber machine gun (6:44). He could also troubleshoot and repair 17 other alignment and malfunction problems (6:44). Aerial gunners also received ground training that included shooting at skeet targets from the back of moving jeeps (6:51). For final qualification, one had to score 20 hits on a target plane from 100 rounds of ammunition fired (6:42). An established fear of flying or medical problems, identified during altitude chamber training, eliminated more men than poor gunnery skills (1:11). Upon completion of gunnery school, all enlisted men were promoted to the rank of staff sergeant, placed on flying status, and awarded the combat crew badge (6:12). Successful graduates of gunnery school then proceeded to combat transition training.

Combat Crew Transition Training was probably the most important phase of the radio operator/gunner's training. Here he would be assigned to a specific type of aircraft, and the crew he would fly with and depend on until the end of the war. The crew would fly simulated combat missions and would be taught how deal with the rigors of high altitude bombing (13:--). This training

was often accomplished under the supervision combat veterans. Transition training was sometimes less than adequate as the availability of aircraft, fuel, and munitions was hampered by the needs of actual combat. Time spent at the transition school often varied depending on how quick a crew was needed to replace crews shot down or rotating out of the war zone (13:--). After four to six months of combat preparation, the crew headed for its first combat assignment (1:19).

Combat assignments varied for the radio operator. Ninety percent were assigned to the B-17, the B-24, or the B-29 (6:80). The rest were assigned to the B-25 and the B-26. Radio operators operated the waist guns on most aircraft. On the B-17, there was also a gun in the radio room (6:81). The B-29 was the only aircraft in which the radio operator manned a turret gun and operated the signal flare mortar (9:10). As you can see, the radio operator was a very flexible and important member of the combat crew. Combat duties and responsibilities were virtually the same regardless of the aircraft flown.

The radio operator/gunner had several responsibilities. He was responsible for all long distance communications, both voice and Morse code (1:27). If his aircraft was in the lead position, he also had to send the "bombs away" reports for the combat wing (1:28). Typically, he would man the radio position until the aircraft entered enemy territory, then his primary duty was defensive gunnery. As the first aid specialist, he was also the primary care provider for crew mates injured during a mission (8:72). High altitude bombing was a hostile environment -- even

when the enemy was not present.

Flying in WWII was hazardous at all times. Crewmembers suffered frostbite almost continuously due to the unpressurized and unheated aircraft being flown at altitudes often exceeding 25,000 feet. The gun positions were usually mounted in open windows, and the noise and 200 mile per hour winds made the aft section of an aircraft a miserable place to work (8:85). Temperatures of 50 degrees Fahrenheit below zero were not uncommon (15:--). Electrically heated flying suits often failed and sometimes even burned the crewmembers who relied on them for survival (15:--). Gunners had to wear as many as four pairs of gloves to prevent their hands from freezing and not being able to press the triggers of the machine guns (8:85). Low temperatures also caused vital oxygen systems to fail when ice formed in the supply lines and masks. Several flyers died in flight due to oxygen starvation (11:--). On the B-17, there was an additional hazard. The radio operator gun had no position safeties and it was possible to shoot off the tail of the aircraft (8:71). Nevertheless, the crew still had to contend with the enemy fighters and anti-aircraft fire.

Twenty-five combat missions were required for rotation out of the war zone. To get credit for a combat mission, one had to drop bombs on the enemy, encounter anti-aircraft fire, or confront enemy fighter aircraft (12:--). Getting into a combat situation was easy, coming home was not. Enemy fighters often jumped bomber formations as soon as their escort fighters departed. They normally circled the formation to determine which

aircraft were most susceptible. Enemy fighters did not cherish attacking a tight formation of bombers, each with up to twelve machine guns. New crews who had trouble maintaining formation were the first attacked (15:--). Aircraft with mechanical problems, usually from anti-aircraft fire, were also choice targets as they often lagged behind the formation. The mortality rates for crewmembers exceeded 60 percent during the initial daylight raids in 1942 (11:--). After more capable escort aircraft became available in early 1944, crew mortality rates fell below 20 percent (11:--). Several crewmembers did achieve twenty five missions, but not all went home for good.

Crewmembers rotating back to the United States still had duties to perform. The radio operator/gunner went to either a radio school or to a combat transition unit to serve as an instructor (12:--). Many found this to be a boring assignment after six months to a year in combat. Some radio operators actually felt combat was safer than flying with new crews in training (13:--). Several hundred radio operators/gunners returned to combat duties and served two or three consecutive combat tours. As WWII came to an end, over 8,000 heavy bomber combat crews returned to the United States, and virtually all crewmembers were discharged. As the AAF drew down to postwar size, very few radio operators were retained to serve as instructors at Scott Field, and as the heavy bomber entered the jet age, the airborne radio operator and the aerial gunner career fields split and remain separate today.

The path travelled by the radio operator/gunner throughout

WWII was long and unrecorded for the most part. I have discussed the facts that led up to the need for them aboard bomber aircraft, and the process through which they were selected, trained, and readied for combat. I also discussed their combat duties and responsibilities, and finally, their disposition at the end of their combat tours.

During the war, gunners on bombardment aircraft destroyed numerous enemy aircraft; it is unfortunate that each of them could not be recognized with official victory credits. The United States Army Air Force did not confirm the aerial victory claims of gunners aboard bombardment aircraft during WWII (7:49). The radio operator/gunner was among those not recognized. However, three men distinguished themselves in other ways. Two were Medal of Honor recipients, and the third became the first Chief Master Sergeant of the Air Force.

BIBLIOGRAPHY

1. Ahmann, Hugh N. Interview with CMSAF (Ret) Paul W. Airey. Maxwell AFB, Alabama, 23 - 24 March 1981. United States Air Force Historical Research Center, Office of Air Force History.
2. Army Air Forces Flying Training Command. Memo to Major General Yount, 13 August 1942. Unit History Analysis of Activities, January - August 1942.
3. Army Air Forces Technical Training Command, Scott Field, IL. Syllabus of Training, Radio Operator Mechanic. Scott Field, IL: 25 August 1942.
4. Army Air Forces Technical Training Command, Second District. History of Radio School, 1 January 1939 - 7 December 1941. Scott Field, IL: Army Air Forces, January 1942.
5. Army Air Force Training Command History 1939 - 1945. The Procurement, Classification, and Assignment of AAF Enlisted Personnel, Draft AAS-63, April 23, 1939.
6. Assistant Chief of Staff. "Flexible Gunnery Training in the Army Air Forces." Army Air Forces Historical Studies: No. 31. Intelligence Historical Division, March 1945.
7. Haulman, Daniel I., and William C. Stancik, Col., USAFR. Air Force Victory Credits, WWI, WWII, Korea, and Vietnam. United States Air Force Historical Research Center, 1988.
8. Katz, Judd, Major, USAFR. Interview with Forest Vosler, Medal of Honor Winner, Gunter AFS, Alabama, 5 March 1986. United States Air Force Historical Research Center, Office of Air Force History, Headquarters Air Force.
9. ----- Interview with Henry E. Erwin, Medal of Honor Winner. Gunter AFS, Alabama, 5 March 1986. United States Air Force Historical Research Center, Office of Air Force History, Headquarters Air Force.
10. Office, Chief of the Air Corps (OCAC). Staff Meeting Minutes, June - December 1941. Talk made by Maj Brandt at Staff Meeting, 10 September 1941.
11. Third Bomber Command, Unit History, 5 September 1941 - 1 May 1944. Heavy Bomber Combat Crew Losses.
12. Twelfth Air Force, Unit History, June 1944. Letter from Eighth Air Force, "AAF Policy For Combat Crew Rotation, 13 June 1944."

13. Twenty-ninth Combat Crew Training School, Gowen Field, ID.
Unit History, 1 June 1942 - 1 August 1944.
14. War Department, Headquarters Army Air Forces Letter AAF
352.9. Gunnery Training for Enlisted Men of the Army
Air Forces. Washington, DC: 10 August 1942.
15. 381st Heavy Bombardment Squadron, Unit History, April - June
1943. "Air Room Interview, 381st Heavy Bombardment
Squadron, 19 May 1943."