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**FILE TITLE: USAAF Enlisted Aircrew Gunnery Training for Heavy Bombers in WW II**

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UNITED STATES ARMY AIR FORCE  
ENLISTED AIRCREW GUNNERY TRAINING FOR HEAVY BOMBERS  
IN WORLD WAR II

SMSgt Timothy L. Fitzgerald

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The entry of the United States into World War II found a fledgling U.S. Army Air Force ill prepared to fight. In January 1941 there were 6,180 officers, 7,000 flying cadets and an enlisted force of 88,000 men.(3:9) When the Japanese attacked Pearl Harbor there were only 156 heavy bombers in a total inventory of 1,157 combat aircraft. Of these, 526 were stationed in the Hawaiian Islands and the Philippines to help prevent the Japanese expansion into the Pacific. By 8 December 1941 the United States overseas force had been reduced to 176 (3:10). We were in no position to fight an air war. There was no equipment, no force and no standard training plan. The need to train crewmen and pilots that were required to fly in 5000 airplanes per month that President Roosevelt directed to be built only compounded the situation. Efforts to begin the strategic bombing of Europe with sufficient bombers to have an effect would be almost two years.

#### BACKGROUND

With the advent of the war in Europe, the United States Army realized that heavy bombers would be required in great numbers to meet the strategic bombing doctrine that was being developed. However, budget constraints and interservice rivalry helped to keep the number of heavy bomber aircraft low. The rapid developments in both aircraft design and fighting strategies prevented the Air Force from building a creditable bomber force prior 7 December 1941.

At the time of the United States entry the Air Force was just developing the training programs and bases needed to provide aircrews for the growing bomber force. The II Bomber Command was just establishing its training fields in Washington and Oregon. Qualified

the normal crew complement for a B-17D was nine men, with only the pilot, co-pilot and navigator being officers. Up until June 1942, enlisted airmen were carried on B-17's as bombardiers. It was an enlisted man, Sergeant Meyer Levin, acting as bombardier on Capt Colin P. Kelley Jr.'s famous mission on 10 December 1941 who actually dropped the first bomb on a Japanese warship. (2:53-55). But, by June 1942 all that changed.

In June 1942, the Air Force decided that the bombardier needed to be an officer and enlisted bombardiers were removed from training. But with the deletion of the bombardier position the Air Force added another waist gunner after determining that it was not possible for a single man to protect both the left and right sides of a B-17 during fighter attacks. (1:89-90) This brought the total enlisted crewmen to six.

Regardless of what primary duty title, all enlisted aircrews combat duty, with the exception of the Radio Operator, was gunner. According to the II Air Force Ground Training Program for Combat Crews, pages 3-4, the enlisted airmen positions were as follows:

Aerial Engineer

Principal Duty: Upper Turret Gunner

Secondary Duty: Airplane Engineer

Radio Operator:

Principal Duty: Operation and adjustment of radio equipment

Secondary Duty: Gunner

Armorer Gunner:

Principal Duty: Gunner (either tail or waist gun)

Secondary Duty: Airplane Armorer

1st Career Gunner:

Principal Duty: Lower Turret Gunner (this position was restricted to height because of the extremely confined space these men operated in)

Secondary Duty: Turret Specialist

2d Career Gunner:

Principal Duty: Gunner (either tail or waist gun)

Secondary Duty: Assistant Aerial Engineer

3d Career Gunner:

Principal Duty: Gunner (either tail or waist gun)

Secondary Duty: Assistant Radio Operator

But to arrive on combat status required extensive training of the whole B-17 crew, as a unit.

Where did this happen and how was it done?

## TRAINING

U.S. Army Air Force aircrews arrived in theater as a team. The training was a combination of initial training for each specialty at the appropriate ground school with follow up training as complete aircrew at training bases. The normal time required to train one heavy bombardment group--a group usually consisting of 4 squadrons of twelve planes--was 22 months. This time was for all phases of training beginning with the pilot, which took 22 months, to the career gunners who training averaged eight months. (3:atch 5)

Career gunners were first trained at gunnery schools. This six-week course involved both ground range weapons firing as well as aerial gunnery training involving firing at towed sleeve targets from the back of small trainer aircraft (1:78-79).

Radio operators were trained in morse code as well radio communications characteristics. Operators were also schooled in radio receiver maintenance operations. To make the most of available training time in II Bomber Command, Reg 100-5, dtd 19 July 1943, directed that all radio-operator-mechanics be given 45 hours of flexible gunnery training before being assigned to aircrews. However, this was secondary to their primary duties in as much these personnel "...be made available to the Communications Officer for Communications

Headquarters, the 17th Bombardment Group (Medium), Pendleton Field, Oregon listed 119 officers, aviation cadets and enlisted men as qualified nonpiloting personnel. The enlisted personnel only consisted of 66 "aerial gunners." All of the enlisted personnel were qualified had completed the gunnery course at the II Bomber Command training range at Seven Mile Camp near Wright Field in Washington. (8)

In the opening days of the war, enlisted personnel not served as gunners, but they were the bombardiers on the B-17's. At that time the crew of a B-17 was seven, with only the pilot, co-pilot and navigators being officers. It was not until June 1942 that the Air Force decided to make all bombardiers officers. (1:89-90 ) But, regardless of what grade was manning what position, without the enlisted aircrew providing protection with their .50 caliber machine guns, the strategic bombing of campaign in Europe would have been impossible.

The opening days of World War II found the Air Force with only the B-17C and D in the inventory. Though stable and rugged airplanes, there were only seven crewmen on board. Based on lessons learned in the air war over Europe, the Air Force directed Boeing aircraft to increase the protection on the B-17. The follow on B-17E added the tail gunner and replaced the a bathtub gun housing on the underside the top gunner's position with powered turrets. These aircraft were just coming into the inventory when the Japanese struck. By June 1942, a B-17E aircrew consisted of ten men, four officers and six enlisted men. Enlisted crewmen flew as the Aerial Engineer, Radio Operator, two waist gunners, tail gunner, and lower turret gunner. It was these men that protected the bomber streams from German fighters in the early and bloody days of the air battle over Germany, before the introduction of long-range fighters.

#### ENLISTED AIRCREW DUTIES

The number of airmen on a B-17 changed with the introduction of the B-17E which included the tail gunner position, this as a result from lessons learned from the British use of the B-17D's prior to the United States entry into World War II. But in the first six months of the war

instruction so that they do not lose their code speed or become inefficient ...(while) giving emphasis to gunnery training." (9).

Upon assignment to aircrews, the training began anew to meld all ten men into a coherent whole. During the initial days to the war the Air Force lacked equipment and ranges. Individual bases and commands developed their equipment and programs to provide the necessary gunnery training. Some of these were quite ingenious.

The II Bomber Command history, 1 January 1939 to 7 December 1941, outlined steps taken to provide ground gunnery training. The range opened 20 November and consisted of three towers and a B-25 turret, as well as a skeet range--used to train gunners in the art of leading a target. Gunners fired at aircraft silhouettes that simulated firing distances of 600 yards. All of this was done on a budget of \$500.00. (6:34-39) This was the beginning of the formal aircrew ground school training program for 2d Air Force. Air-to-ground ranges were set up later in the war for the purpose of training gunners in gun stoppages. (7)

Second Air Force initial formal Ground Training Program for Combat Crews on 12 July 1943. It consolidated various training memorandum and directives into a single program that established minimum standards for ground school instruction in the time available in each of three training phases which were one month long. The demands of the build up as well as replacement crews drove the requirement to train these aircrews in the minimum required time. A Statistical Control Office, U.S. Strategic Air Forces in Europe, Itr 27 March 1945 determined that the average life of a heavy bomber crew in Europe during a six-month period between August 1944 and January 1945 was 115 combat days. (5)

Upon completion of initial training schools aircrews were then assigned to a combat aircraft. This period of training was to familiarize each airman with his airborne duties. The three phases of ground training provided an opportunity for the crews to develop into a coherent

operating entity through both ground and flight training. This training was vital to prepare the aircrews for the rigors of combat over Europe.

## CONCLUSION

The long history of enlisted airmen that began in World War I was broadened during the furious air battles over Europe and in the Pacific during World War II. To meet the numbers of aircraft and aircrew that a successful strategic bombing the Air Force developed and implemented the first standardized training program for enlisted combat crews. The results of this program and the courage displayed by these men helped to ensure the Allied victory over the Axis powers.



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