

Few know it now, but enlisted gunners protected B-52 bombers through the 1991 Gulf War.

By Peter Grier

From his gunner position in the back of the bomber, SSgt. Samuel O. Turner detected the enemy fighter just before it began its firing pass.

The attacker came in from below and behind, climbing quickly, while a second bogey lingered in the distance to observe the coming combat. The wrangle did not last long. As the fighter came within range Turner fired a six-second burst from his tail guns—about 700 rounds.

“There was a gigantic explosion to the rear of the aircraft,” said Turner. “I looked out the window but was unable to see directly where the [fighter] would have been.” Turner turned his attention back to the fighter’s wingman.

After about 15 seconds, the second fighter turned and fled. “As we left the threat area, my aircraft commander told the other [US] aircraft, ‘I think we got one,’ and they knew what he meant,” he recalled.

This encounter was notable, aside from the gunner’s skill in the face of



Below: SSgt. Samuel Turner, a B-52 gunner, receives the Silver Star from Gen. John Meyer, head of Strategic Air Command.

USAF photo



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danger. It did not involve a B-17 or a B-24 facing off against a Luftwaffe attack, or a B-29 defending itself in the Korean War—Turner was a tail gunner on an aircraft still flying but not usually associated with machine gun defense: the B-52.

Today the B-52 is one of the most versatile and long-lived airframes in

"B-52s Over Hanoi," by Robert Bausch, from the Air Force Art Collection.



B-52 Gunners

history. It has morphed over time from a long-range strategic nuclear bomber, to a conventional bomb delivery wagon, to a precision guided munitions carrier. The B-52 remains in the US Air Force arsenal because it is durable, economical, and effective.

The fact that B-52s once featured guns as a defensive armament is evi-

dence of how long they have been in service.

The bombers never bristled with turrets, as World War II bombers did. But B-52s featured defensive armament in the tail: A through G models had quad .50-caliber machine guns, and H models employed a single M61 20 mm rotary cannon. The gunners who

manned these weapons were enlisted personnel. They were the only enlisted airmen in a B-52 crew.

Turner was the gunner on a B-52D from U Tapao airfield, Thailand, on a Dec. 18, 1972, mission to bomb targets near Hanoi during Linebacker II, the Vietnam War's last major air campaign. The fighter he shot down



Above: A B-52F rolls out (back). In the foreground is a tail detail, showing, from left to right, the ammunition access door, the drag chute compartment, and the gunner's entry hatch. Right: Maintainers service the four .50-caliber M3 machine guns in the tail of a BUFF.

was a North Vietnamese MiG-21, and it was the first time a B-52 gunner destroyed an adversary.

For this achievement Turner was awarded the Silver Star. "By his courage in the face of hazardous combat conditions and outstanding professional skill, he successfully defended his aircraft and its crew and enabled it to complete its mission and return safely to base," reads the citation accompanying the decoration.

Between You and Eternity

The gun defenses of aircraft began with pistols, rifles, or machine guns fired by the pilots and observers pre-World War I. Machine guns mounted in "turrets"—little more than circular hardwood tracks—were the next step.

Guns in these early designs rotated on hardwood casters, noted a secret history of turret development compiled by the US Air Historical Office in 1947. "They were cumbersome and unmanageable; the wood warped and bound with every flexing of the aircraft fuselage; and manipulation, even at the laggard air speeds of that day, was complicated by the fact that the gunner never had enough hands to perform the many operations involved in training his guns," it reads. The history was written by Capt. Irving B. Holley Jr. and was declassified in 1959.

But World War I gunners were deadly despite the primitive technology. The first American to shoot down five enemy



aircraft was Frederick Libby, an ex-cowboy from Colorado who joined the British Royal Flying Corps in 1916 and served as an observer-gunner in FE-2B two-seat pusher aircraft.

FE gunners used two machine guns, including a rear-facing Lewis gun, mounted on a steel pole, which re-

quired them to stand up on their seats when firing. "Only your grip on the gun and the sides of the nacelle stood between you and eternity," said Libby years later. This did not stop Libby from destroying five adversaries in his first six weeks in the air—as a private (he was later promoted to lieutenant). "Only the fact that he performed this feat as an observer instead of a pilot prevents his occupying the historic spot of first American ace," according to authors Raymond Toliver and Trevor Constable in their book *Fighter Aces*.

As bombers increased in size and speed, guns were enclosed within the fuselage, and the number of weapons increased. Early models of World War II's B-17 Flying Fortress featured five guns. Eventually they sprouted tur-

rets in the nose, tail, belly, and upper fuselage, along with waist machine gun emplacements. This allowed the B-17 to cover almost all possible angles of attack.

A formation could produce a ferocious wall of defensive fire. At the height of the war, gunners were es-

sential to strategic bomber defense in all theaters. Tens of thousands of US gunners flew missions over Europe alone, as the Army Air Forces attacked Germany's industrial base.

One of them was SSgt. Forrest L. Vosler, a radio operator-gunner who had taken a six-week gunnery course at the completion of his radio training, and who was awarded the Medal of Honor for his exploits in the skies over Germany on Dec. 20, 1943. Severely wounded by a German 20 mm shell, Vosler nevertheless kept up a steady stream of fire from his gun position. Though partially blinded he fixed his damaged radio by touch alone and managed to send distress signals before his B-17 ditched in the North Sea. Vosler survived.

In the Pacific, SSgt. John D. Foley was a legendary B-26 top turret gunner. In 63 combat missions he destroyed seven enemy aircraft, a number of them Japanese A6M Zeros. Back home he became so famous a popular lyricist wrote a song about "Johnny Zero" in 1943, and "Johnny Zero" boots, watches, and coats were popular department store items.

As jet fighters took to the skies, aerial gunnery remained an effective means of defending long-range bombers. In the Korean War, B-29 gunners scored 27 victories. This was a "remarkable feat" given the lumbering B-29s were often up against speedy MiG-15s, wrote author Albert E. Conder, himself a former gunner, in *The Men Behind the Guns: The History of Enlisted Aerial Gunnery, 1917-1991*.

In this context, it is easy to see why Boeing engineers included active gun defense in their plans for a new long-range jet bomber intended to maintain the Cold War balance of power—the B-52.

The first USAF B-52s entered service in November 1955. Initial Air Force requirements for the long-range strategic bomber called for a crew of five, plus turret gunners. But the B-52B—the first deployed variant of the bomber—carried only one gunner, who manned four .50-caliber M3 machine guns. The barrels of these weapons protruded menacingly from the bomber's rear, like a giant multipronged stinger.

The gunner sat in the aircraft tail underneath a transparent canopy, allowing a wide field of vision. The view directly in front was blocked by the control panel and the guns themselves,



USAF photo

A B-52 releases a bomb load on a target southeast of Saigon in 1966. Until the G model, the gunner was confined to a tiny space in the tail of the massive aircraft but had a great view of his surroundings.

but an optical periscope overcame the blind spot.

B-52 gunners reached this isolated position by climbing over the fully reclined back of their seat. When they snapped the seat upright, they were physically isolated in a space more than one airman compared to the size of a coffin. With some variation as to weaponry and fire-control systems, this layout remained the same through the B-52D, the version used extensively in Southeast Asia beginning in the 1960s.

Last Kill

Though B-52 gunners served throughout the Southeast Asian conflict and into the Gulf War period, their most intensive combat experience came during Linebacker II, the massive bombing of North Vietnamese targets ordered by President Richard Nixon when the Paris peace talks faltered in late 1972.

The operation began on Dec. 18, 1972, and ended on Dec. 29. USAF B-52s flew 729 sorties and dropped 15,000 tons of bombs on 34 targets. Fifteen bombers were shot down, all by North Vietnamese surface-to-air missiles. During this period B-52 gunners claimed five MiG kills. Only two were confirmed. The first was Turner's aerial victory.

The second involved A1C Albert E. Moore, gunner on the B-52D *Diamond Lil*.

Late on Christmas Eve 1972, Moore's bomber took off from its Thai base headed for the North Vietnamese rail yards at Thai Nguyen. Before it arrived on target Moore spotted something in his radar scope, low, and about eight miles distant.

"I immediately notified the crew, and the bogey started closing rapidly," Moore wrote six days later. "It stabilized at 4,000 yards, 6:30 o'clock low. ... I called the pilot for evasive action and the EWO [electronic warfare officer] for chaff and flares. When the target got to 2,000 yards, I notified the crew that I was firing. I fired at the bandit until it ballooned to three times in intensity then suddenly disappeared from my radar scope at approximately 1,200 yards, 6:30 low."

A crewman from another B-52 saw the MiG explode in a fireball, confirming Moore's account.

As he returned to base following the mission, Moore wrote later, he did not know whether to be happy or sad. He knew there had been a pilot in that fighter who wanted to return to base just as badly as he did. "But it was a case of him or my crew. I'm glad it turned out the way it did," Moore wrote.

This incident marked the last confirmed kill of an enemy fighter by a bomber gunner.

Diamond Lil remains intact. The bomber flew more than 200 missions during the Vietnam War, with the Air

Force retiring her on Oct. 6, 1983. Today she sits on pedestals just inside the main gate of the US Air Force Academy in Colorado Springs, Colo.

The tail's rear seat was a great office in which to work, remembers Daniel Danish, who served as a B-52 gunner from his enlistment in the Air Force in 1974 to 1991. There was not much elbow room—you had to stick your arms out like a chicken—but you could not beat the view. “You had this window all around you,” said Danish, who retired in 2004 as a chief master sergeant, and today serves as an officer of the Air Force Gunners Association.

The ride could be a little rough. Given the length of a B-52 fuselage, the tail moved up and down quite a bit. The ratio was about one-to-six; for every foot the cockpit moved, the tail bounced six. The ride was especially rough during low-level flight. “Lots of times you wore your helmet throughout the flight,” recalled Danish. “You could get knocked around pretty good.”

Directly in front of the gunner seat was a radar scope. In World War II bombers, gunners for the most part aimed their weapons themselves, taking into account the curve of a fighter's approach and their own aircraft's direction. In the B-52, search and track radars and computerized fire-control systems took over this aiming process.

The End of an Era

Though it had many different modes of operation, and could be set on manual, the fire-control system essentially automated much of a gunner's job. “Once you locked on to a target it just followed it in and did everything but pull the trigger for you,” said Danish. The guns fired in short bursts. The kick was such that the entire crew could feel what was happening. “It just shook the whole airframe,” Danish said.

Active defense of the aircraft was not the B-52 gunner's only responsibility. With a range of up to 12 miles, the search radar could serve as a valuable adjunct to the aircraft's main navigational systems. If the bomber was flying in cell formation, the gunner could serve as the pilot's eyes to the rear, directing following aircraft to stay in position.

In poor weather conditions the radar provided range and bearing information to the rest of the cell. If an aircraft in the rear lost its own radar, the

gunner of a lead airplane could direct it to its target. Gunners also worked closely with electronic warfare officers. Together they constituted a B-52's defensive team—one with active weapons, one with more passive electronics.

Although the rest of the B-52 crew were officers, gunners report that they were not treated as second-class citizens. Said Danish, “We all had an important role to play.”

Beginning with the B-52G, gunners were moved from the aircraft tail to the main cabin. The pilot and copilot sat in the front seats, while the gunner and EWO sat behind them, next to each other.

This change was intended to allow the crew to work more closely together. It also saved weight and gave the gunner an ejection seat. But many gunners rued the loss of their wide-screen view.

Also, firing guns by remote control from the middle of the aircraft seemed less active than shooting them from the rear. Without the view out the rear of the bomber, gunner trainees sometimes found it hard to get used to flying backward. When they felt the airplane was going to their right, for example, it was actually turning left, and vice versa.

John E. Stallings, who served as a B-52 gunner from 1989 through 1991, had this problem. He kept getting sick on training flights, to the point where his superiors almost decided the job wasn't for him. But Stallings kept at it and eventually flew 130 combat hours in the Gulf War. The missions he flew on did not draw much anti-aircraft fire, he remembers today, and the Iraqi Air Force did not come up to engage his aircraft.

“I do remember how the airplane shook as 45 bombs were released,” said Stallings, today a master sergeant in the Illinois Air National Guard and a firefighter. On one Gulf War mission, an EF-111 flying support got separated from the group, and no one could raise it on radio. When they got



USAF photo

Airmen load a B-52 with bombs. The machine guns jutting from the tail jolted the entire airframe when fired.

back to Diego Garcia, the B-52 crew members saw on CNN that the Raven had crashed with no survivors. To this day, Stallings remembers the EF-111's call sign, Ratchet 75. “I could not tell you what my call sign was on that flight, but I remember theirs,” said Stallings.

In the B-52H, the .50-caliber machine guns were replaced with an AN/ASG-21 defensive fire-control system using a 20 mm six-barrel cannon—a modern, high-rate-of-fire weapon. But as long-range air-to-air missiles became more lethal, the very notion of having a gunner came under review.

From the 1950s beginnings to the last class in September 1991, about 5,000 airmen earned their gunners wings. Then, in late 1991, Strategic Air Command announced it was eliminating the B-52 gunner—saving money and cutting 525 positions.

Stallings was the last gunner to fly out of Loring AFB, Maine. Upon landing the pilot informed him his fellow gunners had set up a portable water tank and were waiting to throw him in. “This was late September, and it was starting to get cold at night so the water was not very warm,” said Stallings.

On Oct. 1, 1991, the B-52s flew without a gunner—and a long and proud tradition came to an end. ■

Peter Grier, a Washington, D.C., editor for the Christian Science Monitor, is a long-time defense correspondent and a contributing editor to Air Force Magazine. His most recent article, “When the Nuke Plan Changed,” appeared in September.