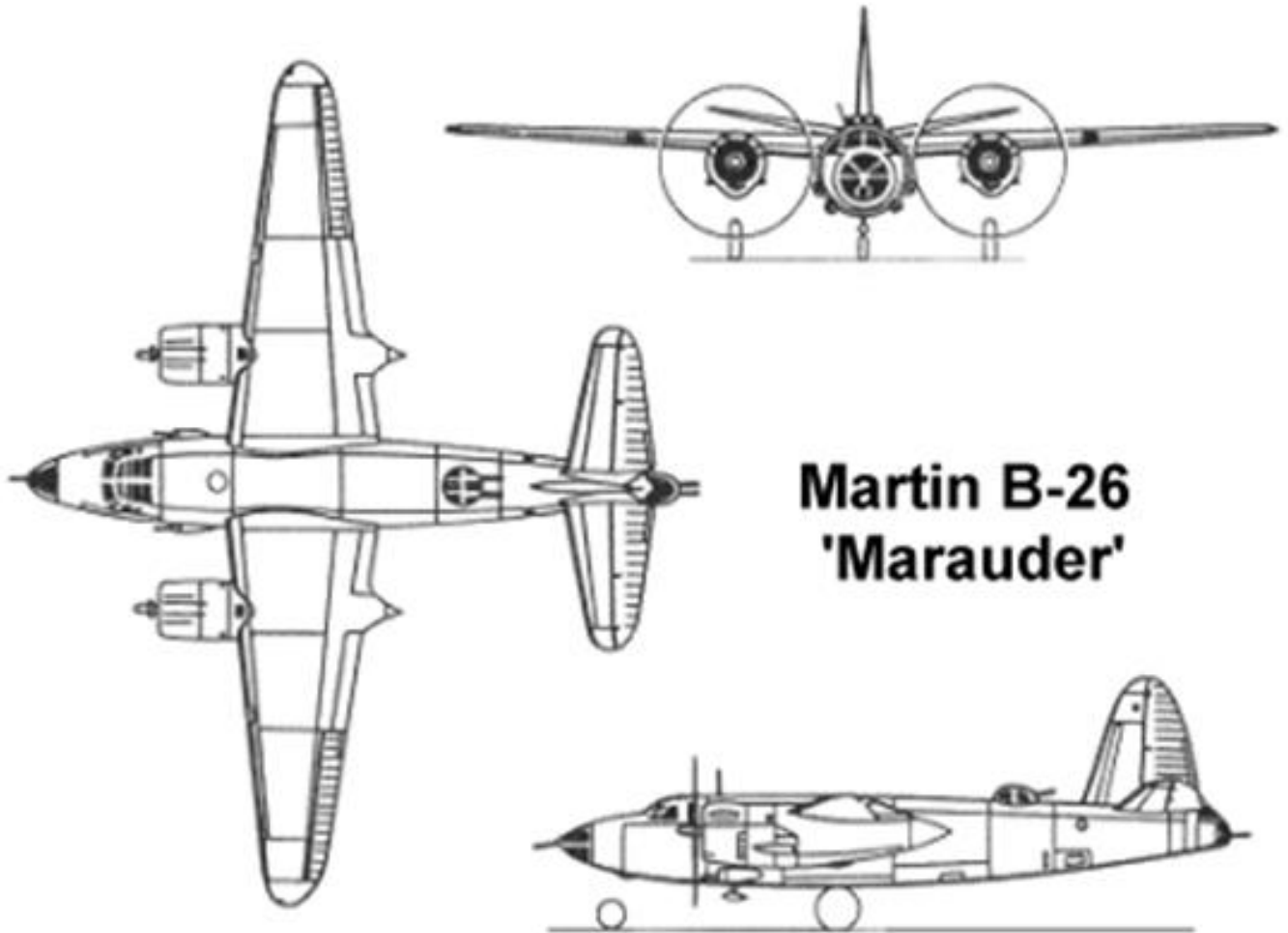


THE MARTIN B-26 MARAUDER The Forgotten Bomber of WWII



**Martin B-26
'Marauder'**

Of all the Allied bomber aircraft of World War II, the most controversial was the Martin B-26 Marauder, a twin-engine streamlined medium bomber that was either loved or hated by its pilots. Those who loved it included Lt. Gen. James H. "Jimmy" Doolittle, who used a B-26 Marauder as his personal aeroplane, and most of the pilots and crew members who flew the aeroplane in combat. Among those who hated the aeroplane were the crews of the Air Transport Command's Ferrying Division, who picked the Marauders up at the factory and delivered them to combat units.



On three different occasions, notably by the Truman Committee, efforts were made to cancel B-26 production, but in every case, supporters of the aircraft, including General Jimmy Doolittle, who used one as his personal aircraft, managed to convince doubters that it would prove a success. However, after gaining a bad reputation due to the loss of dozens of crew members in training accidents, the Martin B-26 finished the war with the lowest combat loss ratio of any Allied bomber.

The problems were mainly due to inexperienced pilots and maintenance personnel and technical issues, with carburetors and propeller feathering. For them, the loss of an engine on take-off was usually fatal.

While these were problems that an experienced pilot could handle, the pilots who were filling the ranks of the combat squadrons were severely lacking. Because of the accident rate, the Truman Committee recommended that the B-26s be removed from service. Martin turned to the men who had flown the airplane in combat in the Southwest Pacific for help. The combat pilots took up the cause and saved the aeroplane from extinction.



Close up view of the B-26B Marauder in flight

The B-26 came about as a result of an Army Air Corps specification for a fast twin engine medium bomber in January 1939. The Glenn L. Martin Company submitted a design that had been drafted by Peyton Magruder, a young aeronautical engineer, aged 26, who was well ahead of his time. He designed an aeroplane with high wing loading to reduce drag and allow higher cruise speeds. The thin wing required much higher than normal take-off and landing speeds.

Martin was awarded a contract for 201 aircraft, to be designated B-26. The B-26 went from paper concept to an operational bomber in approximately two years. Additional orders for a further 930 B-26s followed in September 1940, still prior to the first flight of the type. No actual prototype was built; the initial run of production aircraft were used for all test flights. Eventually, A total of 5,157 B-26 Marauders were built.

The advanced design would be largely responsible for the problems that plagued the aircraft, in pilot training and early in its service. Essentially, it was a 'hot' aeroplane, superb in the hands of experienced pilots, flying the aircraft according to its specifications, but potentially

lethal with a young inexperienced pilot at the controls, as things tended to happen fast, when problems arose, and there was little or no latitude for novices. Training was like giving a modern Formula 1 racing car to an 18 year old, who had recently passed their driving test (and many of the trainee pilots were just 18 years old too!)

The aircraft was quickly labelled as “The Flying Coffin”, “The Widowmaker”, “The Baltimore Whore” and “The Flying Prostitute” (because of the high wing loading it was said to have “no visible means of support”) and earned the reputation of losing “One a day in Tampa Bay”, where the main training base was located, at McDill Air Force Base in Tampa, Florida.



Marauder cockpit

The Marauder had to be flown at precise airspeeds, particularly on the steep final runway approach and flare, and when one engine failed. The unusually high 150 mph (241 km/h) speed on short final runway approach was intimidating to many pilots, who were used to much slower approach speeds, and whenever they slowed down to speeds below those stipulated in the manual, the aircraft would tend to stall and crash.

Furthermore, the US Army added several tons of additional weight, with powered turrets, armour plating and other modifications, which moved the centre of gravity aft, potentially making the aircraft unstable (today's jet aircraft are often deliberately designed to be unstable, with much more power, and computers 'fly' the aircraft).



An increase of wingspan and wing angle of incidence, to give better take off performance, and a larger fin and rudder made later B-26 models a safer aircraft, once crews were familiar with it. In addition, because of its speed, it was less vulnerable to enemy fighter attack than four engine bombers. Its main vulnerability was to anti-aircraft flak, so missions were often flown above 10,000 feet. Crews were pleased to know that this tough and rugged aircraft could take an immense amount of punishment and still get them home, even if sometimes they needed to make a belly landing on arrival. The Marauder ended World War II with the lowest loss rate of any Allied bomber.



The B-26 first saw service during World War II the Pacific Theatre in early 1942, then in North Africa and the Mediterranean Theatre and later in Western Europe. A total of 5,288 were produced between February 1941 and March 1945; 522 of these were flown by the RAF and the South African Air Force. The high top speed of the B-26 ('G' Model – 287 mph at 5,000 feet) gave the Marauder an advantage lacked by the much slower B-17s. The B-26 was heavily armed with a dorsal turret, waist and tail guns, and additional guns in the nose. Fixed forward-firing guns were added in pods on the sides of the fuselage.



B-26 Bomb Bay

Bombing from medium altitudes of 10,000 to 15,000 feet (3,000 to 4,600 m) and with appropriate fighter escort, the Marauder proved far more successful, striking against a variety of targets, including bridges and V-1 launch sites, in the build up to D-Day, and moving to bases in France as they became available. The Marauder, operating from medium altitude, proved to be a highly accurate aircraft, with the 9th Air Force rating it the most accurate bomber available in the final month of the war in Europe.



Martin B-26B-15-MA Marauder "Wham Bam!" Serial 41-31665 558th Bomb Squadron

Half of the USAF Bomb Groups, which flew the B-26 Marauder in Europe in WWII, were based at New Forest Airfields in mid-late 1944. Marauders were based at Beaulieu – 323BG (453/454/455/456 Sqdns), Holmsley South – 394BG (584/585/586/587 Sqdns), Hurn – 397BG (596/597/598/599 Sqdns) and Stoney Cross – 387 BG (556/557/558/559 Sqdns), during the summer of 1944. They were part of the tactical operations of the US 9th Air Force, based at the four airfields, supporting the Normandy invasion, once the P-47D Thunderbolt and P-38J Lightning fighter bombers had left for the temporary Advanced Landing Grounds and liberated concrete runway air bases, in northern France.



Loss rates were far lower than in the early, low-level bombing days, with the B-26 stated by the 9th Air Force as having the lowest loss rate in the European Theatre of Operations, at less than 0.5%.

At the end of WWII, in late 1945, 500 B-26s were flown to bases in Germany. The fully operational aircraft were lined up and the tail sections bulldozed off, so that the Russians would not be able to use them. The aluminium salvaged from this deliberate carnage was used to re-start German manufacturing industry, in the late 1940s.

After WWII, by 1947, all Martin B-26s had been retired from U.S. service. Subsequently, the twin engine Douglas A-26 Invader, a completely different aircraft, assumed the "B-26" designation, which led to some long-term confusion between the two aircraft, designed and built by different companies to different specifications.

B-26G Specifications

Crew: 7: (2 pilots, bombardier/radio operator, navigator/radio operator, 3 gunners)

Length: 58 ft 3 in (17.75 m)

Wingspan: 71 ft 0 in (21.64 m)

Height: 21 ft 6 in (6.55 m)

Wing area: 658 sq ft (61.1 m²)

Empty weight: 24,000 lb (10,886 kg)

Gross weight: 37,000 lb (16,783 kg)

Powerplant: 2 × Pratt & Whitney R-2800-43 Double Wasp 18-cylinder radial piston engines, 2,000–2,200 hp (1,500–1,600 kW) each

Propellers: 4-bladed constant-speed feathering propellers

Performance

Maximum speed: 287 mph (462 km/h, 249 kn) at 5,000 feet (1,500 m)

Cruise speed: 216 mph (348 km/h, 188 kn)

Landing speed: 114 mph (99 kn; 183 km/h)

Combat range: 1,150 mi (1,850 km, 1,000 nmi) with 3,000 pounds (1,400 kg) bombload and 1,153 US gal (4,365 l) of fuel

Ferry range: 2,850 mi (4,590 km, 2,480 nmi)

Service ceiling: 21,000 ft (6,400 m)

Rate of climb: 1,200 ft/min (6.1 m/s)

Armament

Guns: 11 × .50 M2 Browning machine guns. One in nose position, four in blisters on fuselage, two in dorsal turret, two in tail turret, two in waist positions

Bombs: 4,000 lb (1,800 kg)



387th Bomb Group B-26, based at Stoney Cross in July 1944, unloading

In 1942, a batch of 52 **B-26A** Marauders (designated **Marauder I** by the RAF) were offered to the United Kingdom under Lend-Lease. These aircraft were sent to the Mediterranean, replacing the Bristol Blenheim of No 14 Squadron in Egypt. The Squadron flew its first operational mission on 6 November 1942, being used for long range reconnaissance, mine-laying and anti-shipping strikes. Unlike the USAAF, No.14 Squadron made productive use of the equipment for carrying torpedoes, sinking several merchant ships with this weapon. The Marauder also proved useful in disrupting enemy air transport, shooting down considerable numbers of German and Italian transport aircraft flying between Italy and North Africa.

B-26B — Model with further improvements on the B-26A, including revised tail gunner's glazing. Nineteen were delivered to the Royal Air Forces as the Marauder Mk.IA. Production blocks of the 1,883 aircraft built.¹

B-26B-10 through B-26B-55 — Beginning with block 10, the wingspan was increased from 65 feet (20 m) to 71 feet (22 m) and flaps were added outboard of the engine nacelle to improve handling problems during landing caused by high wing loads. The vertical stabilizer height was increased from 19 feet 10 inches (6.05 m) to 21 feet 6 inches (6.55 m). Armament was increased from six to twelve .50 calibre machine guns; this was done in the forward section so that the B-26 could perform strafing missions. The tail gun was upgraded from manual to power operated. Armor was added to protect the pilot and co-pilot. (1,242 built)

CB-26B—12 B-26Bs were converted into transport aircraft (all were delivered to the US Marine Corps for use in the Philippines).

B-26C—Designation assigned to those B-26Bs built in Omaha, Nebraska. Although nominally the B-26B-10 was the first variant to receive the longer wing, it was actually installed on B-26Cs before the B-26B-10, both being in production simultaneously. A total of 123 B-26Cs were used by the RAF and SAAF as the Marauder Mk II. Approximate cost then: \$138,551.27/aircraft (1,210 built)

B-26G—**B-26F** with standardised interior equipment. A total of 150 bombers were used by the RAF as the Marauder Mk III. (893 built)

Marauder I – British designation for 52 B-26As for the Royal Air Force.

Marauder IA – British designation for 19 B-26Bs for the Royal Air Force.

Marauder II – British designation for 123 B-26Cs for the Royal Air Force; 100 passed on to South African Air Force and supported invasion of Italy

Marauder III – British designation for 200 B-26F and 150 B-26G for the Royal Air Force and South African Air Force.

With the exception of the B-26C, all models and variants of the B-26 were produced at Martin's Middle River, Maryland manufacturing plant.

Surviving Aircraft





Dinah Might in the Utah Beach Museum, Normandy

A B-26G painted to represent B-26B 44-68219 *Dinah Might*, which took part in the low-level bombing of Utah Beach defensive bunkers on D-Day a few minutes before the first US troops hit the beach. – Utah Beach Museum (Musée du Débarquement Utah Beach) on loan from the [Musée de l'Air et de l'Espace](#) in [Le Bourget](#). It was previously recovered from the Air France training school.



43-34581 *Shootin In* – [National Museum of the United States Air Force](#) at [Wright-Patterson AFB](#) in [Dayton, Ohio](#). This aircraft was flown in combat by the [Free French Air Force](#) during the final months of World War II. It was obtained from the mechanics' training school of French airline [Air France](#) near [Paris](#) in June 1965. It is painted as a [9th Air Force](#) B-26B assigned to the [387th Bombardment Group](#) (The Tiger Tails) in 1945.



41-31773 [*Flak Bait*](#) – The aircraft's nose section (see photos above) is displayed at the [Steven F. Udvar-Hazy Center](#) of the [National Air and Space Museum](#) in [Chantilly](#).

[Virginia](#) (The remainder of the aircraft is in storage). This aircraft survived 207 operational missions over Europe, more than any other American aircraft during World War II.



Martin B-26G-11-MA Marauder, 43-34581, at the [National Museum of the United States Air Force](#), marked as B-26B-50-MA, 42-95857 (a 387th BG Stoney Cross aircraft), which was written off in an accident on 19 April 1945.

Sources & Acknowledgements:

Henry Goodall – personal photographs

Wikipedia

Quest for Performance

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