





# the baltimore bomber

The Germans might have taken  
North Africa if not for the Allied  
Desert Air Force and its forgotten  
warbird from Maryland.

**by Joe Razes**

A Martin Baltimore bomber of the British Royal Air Force makes a dusty landing  
on Ascension Island in the South Atlantic. Passed over for US service, the  
Baltimore (A-30 in US parlance) was heavily used by the British in World War II.

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**T**HE “DESERT AIR FORCE” was what the Allied soldiers fighting Germans on the sands of North Africa called the friendly planes that watched over them. These were the bombers, fighters, and reconnaissance planes that kept an eye on things and beat down the enemy. Without support from these squadrons, the desert might have been lost to General Erwin Rommel and the troops and tanks of his Afrika Korps.

By the summer of 1942, Allied prospects for victory here in the desert looked grim, as they did for the war itself. German forces occupied much of Western Europe and were pressing in on Russia. U-boats were hacking at British lifelines in the North Atlantic. In North Africa, Rommel was closing on British forces in Egypt. Possession of the Suez Canal would not only solve Germany’s crippling supply problems, but also seriously hamper the Allies’ ability to transport fuel, supplies, and troops.

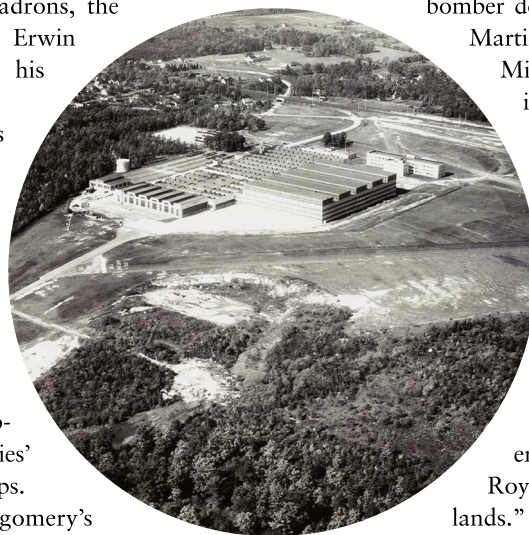
Lieutenant General Bernard Montgomery’s British 8th Army managed to hold onto the canal by defeating Rommel in the Second Battle of El Alamein in late 1942. The three-week fight ended with the Afrika Korps retreating west, eventually to surrender the following May. The Brits won El Alamein with the help of what was officially titled the Western Desert Air Force, whose light and medium bombers pounded Rommel’s columns relentlessly. A few American-made planes shined for a moment as part of this multinational air unit before they faded

into obscurity. One of those shooting stars was a light bomber whose common name wasn’t so common at all. In fact, even in the bomber’s brief heyday the average American wouldn’t recognize its name as anything but a city in Maryland: Baltimore.

Baltimore was the birthplace of this less-than-famous bomber designed and manufactured by the Glenn L. Martin Aircraft Company. Founded in 1912 by Midwestern aviation pioneer Glenn L. Martin in Cleveland, the Martin company soon afterward began building military planes for World War I. In 1928, it relocated to Middle River, Maryland, on the outskirts of Baltimore, and business looked to boom there as the Nazi threat grew in Europe. Martin’s first notable sale of World War II came in 1939, to France: 225 Model 167 light bombers in 1939. When France surrendered to Germany in June 1940, Martin shipped the 75 undelivered bombers of the original order to Britain’s Royal Air Force, which dubbed them “Marylands.” The Brits eventually received 225 more Marylands, most of which performed well as reconnaissance planes in North Africa and the Middle East.

By early 1940, Martin’s new four-seat light bomber, the Model 187, was in production. British Air Ministry engineers had worked with their American counterparts to develop this improved version of the Maryland. British officials named the new plane the “Baltimore.” Crews called it the “Balt.”

In November 1940, before the first Baltimores rolled off the



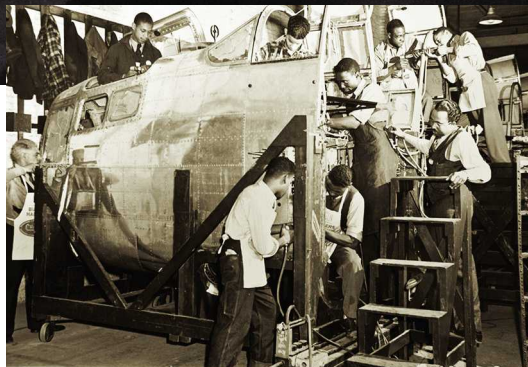
**Top:** A wartime aircraft identification guide shows the Baltimore’s narrow fuselage, broad wings, twin engines, and Plexiglas nose. Not so easy to see are the machine guns, 10 to 14 of them. **Above:** Made at the Glenn L. Martin Aircraft Company in Middle River, Maryland, the bomber took its name from the nearby city of Baltimore.



assembly line, Royal Air Force officials got a look at Martin's bigger B-26 Marauder, which the firm had begun building for the US Army Air Corps. (For light bombers, the air corps favored both the Marauder and Douglas Aircraft Company's A-20 Havoc over the Maryland and Baltimore.) Impressed, the Brits asked to buy the Marauder instead.

Martin executives balked, arguing that canceling the Model 187 order so far into its production would cost too much in lost materials at a time when resources of every type were precious. Ultimately, the British bought some of each, while the effort to complete the Baltimore for them forced Martin to haggle with the US War Department for a delay in Marauder production. The company received the extra time it needed by agreeing to upgrade new Marauders with better armor and self-sealing fuel tanks—at the government's expense.

Production of the new Baltimores moved forward in a brand-new 750,000-square-foot building at Martin's Middle River plant. Labeled "Building C" on company blueprints, the massive shop



went up in just 78 days and was the largest facility of its kind.

But the war in Europe was escalating, and time was of the essence. By late 1940, the exponential increase in work was threatening to swamp Martin's engineering department, whose designers and technicians were sweating over seven new aircraft. Continual modifica-

tions to blueprints caused production delays and disrupted the plant's early 1941 scheduled delivery for the first Baltimore. To buy some time, Martin shipped the British 52 new Marauders that had been designated for US Army Air Corps units.

Like Martin's PBM Mariner patrol bomber flying boat, the Baltimore ran on two 1,600-horsepower Wright Double Cyclone engines. But it weighed less than half as much as the Mariner. The downside was a stabilization problem that required makeshift alterations to the tail. Additional modifications to the landing gear, hydraulics, windshield, engines, and brakes required even more time that Martin didn't have.

The Baltimore's weapons system had problems, too. The first

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Above, top: A flight-ready Baltimore bomber in full Royal Air Force dress sits on the tarmac at the Martin plant. Above, center: In a Martin facility in Baltimore's harbor-side Canton neighborhood, a crew assembles a Baltimore's front fuselage section.

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version of the plane, the Baltimore Mark I, mounted a single Browning .30-caliber machine gun in an open rear cockpit. The Mark II model featured a twin mount. It was a nice upgrade, but was rendered almost moot by the discovery that the Brownings tended to freeze up at frigid high altitudes. Many of the Baltimore Mark IIIs manufactured in early 1942 boasted four-gun, British-made Boulton-Paul electro-hydraulic turrets instead. But these, too, had issues: the turret blocked the escape hatch for crewmen stationed in the plane's rear. Soon, the most plentiful version of the Baltimore, the Mark IV, mounted a more dependable rotating turret.

**T**HE FIRST READY-FOR-ACTION BALTIMORE did not fly until June 1941. It featured the same wings, cabin layout, and armament as the original Maryland bomber, but was one-third larger. Its 48.5-foot fuselage was longer and deeper, though still exceptionally narrow, which gave it a distinctive fish-

face silhouette. The more spacious interior better accommodated the required crew of four: a pilot, a navigator-bombardier, a radio operator who doubled as a gunner, and a gunner for the top turret. In an emergency, auxiliary flight controls in the craft's Plexiglas-enclosed nose allowed the navigator-bombardier to fly the plane.

The Baltimore cruised at 220 mph and could reach an impressive top speed of just over 300. Its maximum altitude was 24,000 feet, and its flying range when fully loaded was 950 miles. An optional auxiliary fuel tank could extend the range for longer ferrying or reconnaissance missions.

The main weapon was a 2,000-pound bomb load, but the plane also bristled with up to 14 strategically placed machine guns. Each wing held 2 of them at its front and had the option for a matching pair on its rear edge. Improved versions also mounted 2 to 4 guns in a dorsal turret, and 2 more jutting from the plane's belly

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Above: The Baltimore's forerunner was the Maryland bomber, introduced in 1939. The US declined the plane, but Martin built 450 for other Allies. Here, Marylands serve with the Desert Air Force's Royal Air Force Squadron 39 in North Africa in 1942. Opposite: Baltimores in flight. The Baltimore's stronger engines lifted a deeper fuselage and more guns. The bomb load was the same, the range a little shorter.



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to deter fighters attacking from below.

The first batch of 160 Baltimores was to be sent to British forces in Singapore. But when the Japanese captured Britain's Far East colony in February 1942, the shipment was diverted to Egypt along with 240 others for duty in the Desert Air Force. The bombers were well-suited to operations in North Africa because they could be serviced quickly when the desert's windblown sand jammed their mechanical systems. The Balts arrived just in time to help counter Rommel's offensive that spring.

The Baltimores struggled at first, failing to prove themselves in low-level attacks on ground targets. But at altitudes of 10,000 to 12,000 feet, they became potent contributors to Air Marshal Arthur Tedder's newly developed tactical bombing system dubbed the "Tedder Bomb Carpet." Tedder's ideas reflected British study of tactics the *Luftwaffe* used during Germany's sweep across Europe—and methods the US Army Air Forces would later employ in France. Closely escorted by fighters, Tedder's carefully planned bomber formations dropped their highly explosive bombs in a tight pattern within several hundred yards of Montgomery's advancing 8th Army troops and armor. This ever-present threat of destruction from the air limited German mobility and eased the British path forward. By mid-summer of 1942, the astounding success of 18-plane box formations of Baltimores and other light bombers had spawned the nickname the Eighteen Imperturbables. After missions, squadron leaders routinely welcomed pilots back to base with messages like "Good bombing. Ground littered with burnt-out vehicles and motor transports. Thanks."

That fall, the role of the Desert Air Force in the Allies' crucial

victory at El Alamein was clear to Rommel. "We could no longer put the main burden of the defensive battle on to the motorised formations since these...were too vulnerable to attack from the air....," he wrote. "In future the enemy would be able to delay our operations at will by strong air attacks by day and similar attacks at night with the aid of parachute flares. Experience had taught us that no man could be expected to stay in his vehicle and drive on when attacked by enemy bombers and that it was useless to try to work to a time-table."

**R**OYAL AIR FORCE PILOTS who battled Rommel's Germans in the desert spoke highly of the Baltimore's agility. "They are very good, but a little tricky to handle," noted one pilot. "They start wonderfully and warm up well and are wizards on the take-off."

The bomber was no slouch in air combat, which it proved in numerous confrontations with better-remembered German warplanes. On February 11, 1944, during a patrol off Rhodes, in the Aegean Sea, two Baltimores of the South African Air Force 15 Squadron tangled with a 10-plane mix of Junkers fighter-bombers, Arado sea planes, and Messerschmitt fighters. The American-made planes shot down one Junkers and damaged two Messerschmitts. Nine days later, two Baltimores from the same squadron battled four Junkers and four Messerschmitts and downed one of each without a loss.

As squadrons of Baltimores helped bust up the vaunted Afrika Korps, others targeted enemy airbases on Crete and attacked German shipping. On June 1, 1944, a 72-bomber group of mostly Baltimores attacked a German supply convoy, out of Piraeus,

Martin officials and employees pose with the last Baltimore ever built, a Baltimore V, on May 2, 1944. It was painted gray and white for sea reconnaissance.



Greece, escorted by destroyers. The Baltimores sank one cargo ship and badly damaged two, one of which went down later that night. Surviving ships returned to Piraeus the next day, but found no sanctuary. The same squadrons attacked again, taking out another merchant ship and a destroyer.

By 1943 the Allied commitment to the long-range, strategic bombing of Germany had introduced the era of four-engine “heavies”—American B-17 Flying Fortresses, B-24 Liberators, and other heavy bombers—reducing the need for lighter bombers. Meanwhile, technological innovation driven by wartime necessity rendered prewar designs like the Baltimore nearly obsolete. Combat had exposed a number of the Baltimore’s weaknesses: insufficient armor, a cramped fuselage, and poor flying range. Cruising steadily at 220 mph, the plane consumed 120 gallons of fuel per hour, enabling it to stay aloft for three to four hours at a stretch. But with its throttles opened up, fuel consumption jumped to 370 gallons per hour, limiting time in the air to less than an hour. Crews had to rely on speed and firepower rather than endurance to escape German fighters.

Still, the Baltimores’ versatility kept them around for the war’s duration. They were used extensively during the 1943–1945



Greek flyers of Royal Air Force Squadron 13—part of Greece’s Royal Hellenic Air Force serving in exile with the Brits—stand beside their Baltimore V, with a Martin-built electric dorsal machine-gun turret.

Allied campaign for Italy; new bombsights and undercarriage racks for dropping illumination flares made them effective nighttime harassers of Axis ground units. Baltimores also towed targets for firing practice, served as fast transports, and hunted U-boats. Their rear-facing armament made them suitable for maritime patrol and as coastal escorts for convoys. Ultimately, Baltimores served in every Allied air force in the Mediterranean theater except the US Army Air Corps (later known as the US Army Air Forces).

Today, not one of the 1,575 Baltimores that the Glenn L. Martin Aircraft Company built during the war survives. The bomber’s humble legacy as little more than a footnote in the history of the world’s greatest war will have to be found in print and on film. As one study of American-built warplanes concluded, the Baltimore “served with distinction, and was liked by its pilots for its superior performance and great structural strength.” ★

tion, and was liked by its pilots for its superior performance and great structural strength.” ★

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