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U.S. Strategic Bombers

The U.S. Air Force deploys three strategic (or heavy) bombers—the B-52, B-1B, and B-2—to carry bombs or air-to-surface missiles for conventional and nuclear missions. Bombers carry heavy ordnance loads across long distances, for extended periods of time, to strike adversary targets of tactical and strategic importance. The Air Force is developing a new B-21 strategic bomber as a next-generation stealth aircraft to conduct nuclear missions and as a component of a conventional family of systems including electronic attack, communications, and other systems. Congress authorizes and appropriates funds for and conducts oversight of Air Force development, acquisition, maintenance, and manning of the U.S. bomber fleet, as well as the nuclear weapons carried by these aircraft. For FY2027, the Air Force requested \$6.1 billion in discretionary funding for the B-21 bomber program. The service requested \$3.1 billion in discretionary funding and \$125 million in mandatory funding for B-52, B-1B, and B-2 upgrades and support.

Conventional and Nuclear Missions

The role of bombers has evolved over time. During World War II, the United States developed new bomber types and produced tens of thousands of bombers. A combined conventional bomber offensive with the United Kingdom from 1942 to 1945 aimed to destroy the German military industrial and economic system. In August 1945, on the orders of U.S. President Harry Truman, U.S. B-29 heavy bombers delivered the “only nuclear weapons ever used in combat” on targets in Japan. During the Cold War, reports about Soviet bomber prowess spurred the United States to increase defense spending and build up its bomber fleet.

Today, bombers support one of the U.S. Air Force’s core conventional functions: air superiority—that is, the degree of control of an airspace that allows for operations without interference from adversarial air and missile threats.

Bombers aid the air superiority mission by providing the ability to carry out long-range precision strikes.

The 2022 U.S. Nuclear Posture Review (NPR), the most recent version of a periodic executive branch review of U.S. nuclear policies, reaffirmed bombers as an integral part of the U.S. nuclear “triad” that also includes long-range land-based intercontinental ballistic missiles and long-range submarine-launched ballistic missiles. The 2018 NPR stated that “heavy bombers are the most flexible and visible leg of the triad.” The 2010 NPR stated that “heavy bombers can be visibly forward deployed, thereby signaling U.S. resolve and commitment in crisis.”

The United States has periodically stationed bombers in allied countries, conducted continuous patrols, or maintained bombers on alert status. In 2018, Air Force Global Strike Command began Bomber Task Force

deployments, which involve bomber flights to allied nations around the world to take part in patrols and exercises to “assure allies and deter adversaries.” Since 2020, the command has refined the use of Agile Combat Employment of bombers to expand the number of bases from which bombers can operate, to include demonstrating the ability to land at civilian airfields.

The U.S. Strategic Bomber Fleet

B-52 Stratofortress

The B-52, which entered service in 1955, is a long-range heavy bomber that can fly 8,800 miles without refueling. Known as the Stratofortress, the B-52 can conduct conventional and nuclear bombing missions (i.e., *dual-capable*), offensive counter-air operations, and maritime surveillance and mine-laying operations. The B-52 can carry 70,000 pounds of ordnance. Boeing built 744 B-52s, delivering the last H-model B-52 in 1962. The Air Force plans to extend the life of the remaining 76 aircraft into the 2040s. The aircraft are based at Barksdale Air Force Base (AFB) in Louisiana and Minot AFB in North Dakota.

According to a 2022 Department of State fact sheet (the most recent available), 46 B-52 aircraft are capable of carrying nuclear weapons. These nuclear-capable B-52s are equipped to carry air-launched cruise missiles (ALCMs) armed with the W80-1 warhead. The Air Force is developing a replacement for the aging ALCMs with a new advanced Long-Range Standoff (LRSO) cruise missile. The Air Force noted its plans to buy 1,087 LRSO missiles. The Department of Energy’s National Nuclear Security Administration (NNSA) is extending the life of the W80 warhead to provide a warhead for LRSO. Section 1626 of the National Defense Authorization Act for Fiscal Year 2025 (NDAA; P.L. 118-159) permitted the Air Force to reconvert for nuclear missions B-52 bombers modified for conventional-only missions in accordance with the U.S.-Russian 2010 New START Treaty, which expired in February 2026.

The Air Force is undertaking two B-52 upgrade projects. The B-52 Commercial Engine Replacement Program seeks to create a new version of the aircraft—the B-52J—with Rolls Royce F-130 engines and other design changes that were finalized in April 2026. The service anticipates modernizing 51 B-52s to J models by FY2032 and the remaining aircraft in FY2033. The B-52 Radar Modernization Program (RMP) is designed to allow the aircraft to track moving surface and air targets to include hypersonic weapons. In 2025, the RMP incurred a significant Nunn-McCurdy cost breach. The first B-52 with the RMP crashed in June 2026, killing eight crew members. The Air Force is reportedly modifying a second test aircraft.

B-1B Lancer

The B-1B was designed to be a dual-capable bomber and the successor to the B-52. The Department of Defense (DOD, which is “using a secondary Department of War designation” under Executive Order 14347, dated September 5, 2025) declared that the B-1B had reached initial operational capability in 1986. During the 1990s, under the U.S.-Russian Strategic Arms Reduction Treaty, the United States converted the B-1B to conventional missions. The B-1B can carry a 75,000-pound payload—the largest conventional weapons load in the U.S. Air Force’s inventory—including general-purpose and precision-guided munitions. The B-1B conducts a variety of bomber task force and training missions. The 7th Bomb Wing, based at Dyess AFB in Texas, and the 28th Bomb Wing from Ellsworth AFB in South Dakota operate the B-1B. The Air Force has 44 B-1Bs, down from an original fleet of 100. Congress has written provisions to limit retirement of the B-1, which is sustained by Boeing. Section 146 of the FY2026 NDAA (P.L. 119-60) extends to 2030 a prior prohibition on reductions to the B-1B fleet. The Air Force plans to retain the B-1B through 2037. Section 151 of the House-passed FY2027 NDAA (H.R. 8800) would mandate an Air Force report on the feasibility of restoring the B-1B’s capability to carry nuclear weapons.

B-2 Spirit

The B-2 is a dual-capable multi-role heavy bomber. The aircraft is considered a stealthy (or low-observable) aircraft in that its design and materials limit its ability to be detected by enemy radar. For example, the B-2’s flying wing design—its triangular shape, composite materials, and coating—reduce its radar cross section to penetrate air defenses. The B-2 can carry a payload of 40,000 pounds. The aircraft made its first flight in 1989 and began initial operations in 1997. The Air Force has 20 B-2 bombers based at Whiteman AFB in Missouri.

The B-2 can carry B61 and B83 nuclear gravity bombs and is not equipped to carry cruise missiles. In 2025, NNSA completed the B61-12 life-extension program. NNSA is developing a B61-13 bomb, which, according to DOD, would give the President “additional options against certain harder and large-area military targets” as the Pentagon “works to retire” the B83. The B-2 is certified to carry conventional munitions, including the Long Range Anti-Ship Missile and the Massive Ordnance Penetrator, which is designed to defeat deeply buried targets.

The Air Force continues to modernize the B-2. In 2024, Northrop Grumman won a contract of up to \$7 billion through 2029 to maintain and improve B-2 stealth and communications capabilities, engines, and displays.

B-21 Raider

The B-21 is a dual-capable penetrating-strike stealth bomber currently in development. The B-21 is similar to the B-2 but slightly smaller, with a distinctive beak domed center. The Air Force has designed the B-21 with an open-systems architecture to allow for faster software integration. The Air Force plans for the B-21 to “employ a broad mix of stand-off and direct-attack munitions.” The B-21 is expected to carry the LRSO and gravity bombs. Air Force

officials have reportedly said that the B-21 could fly without a human crew, although the service is focusing on operations with a two-pilot crew. In 2026, the Air Force and the aircraft’s prime contractor, Northrop Grumman, announced plans to expand B-21 production capacity. The Air Force has plans to buy at least 100 B-21 aircraft, which are scheduled to begin arriving at Ellsworth AFB by 2027. The Air Force has approved Whiteman AFB and Dyess AFB as B-21 bases.

The Air Force has projected that the B-21 would cost \$550 million apiece in 2010 dollars, based on the purchase of 100 aircraft. A B-21 test flight aircraft has flown more than 200 test flights. In September 2025, the Air Force received a second flight-test aircraft. In June 2026, the Air Force began operational testing concurrently with developmental testing. Section 150 of the FY2026 NDAA (P.L. 119-60), required annual assessments of the B-21’s cost, schedule, and performance. Section 1634 set deadlines for the Air Force to certify and employ the LRSO on the B-21.

Potential Issues for Congress

Sizing the bomber fleet and the Air Force budget. In April 2026, some Members of Congress supported increasing the B-21 fleet. Reports accompanying the committee-reported versions of an FY2027 NDAA (H.Rept. 119-698 and S.Rept. 119-127, respectively) directed DOD to report on B-21 force structure. Some experts have said that the Air Force needs at least 200 stealth bombers, citing the high operational tempo of bomber task forces, especially for the aging bomber fleet. Operation Midnight Hammer—the June 2025 U.S. strike on Iranian nuclear facilities—relied on seven of 20 U.S. B-2 stealth bombers for strikes. Others were reportedly used as decoys. Section 151 of the FY2026 NDAA (P.L. 119-60) required the Air Force to submit to the congressional defense committees a bomber aircraft force structure and transition roadmap.

Modernization of nuclear-capable bomber basing. The Air Force is upgrading and increasing the number of bomber bases capable of storing nuclear weapons. According to 2024 testimony of then-U.S. Strategic Command Commander Air Force General Anthony Cotton, Whiteman AFB, Minot AFB, Barksdale AFB, Ellsworth AFB, and Dyess AFB will host new weapons generation facilities. S.Rept. 119-127 requests an Air Force briefing on the potential reactivation of nuclear facilities at Grand Forks AFB in North Dakota.

Base security and hardening. The Air Force has sought to improve base protection against uncrewed aerial systems (UAS) and missile threats. Whiteman AFB is one of five bases participating in a directed-energy counter-UAS pilot program. Some Members have argued for base hardening and “passive defenses” in the Indo-Pacific. Members may consider whether to provide funding to bolster the infrastructure at main operating bases and potentially at smaller airfields to support force dispersion.

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