



FACT SHEET

U.S. Air Force Fact Sheet

C-5 A/B/C GALAXY & C-5M SUPER GALAXY

Mission

The C-5 Galaxy is one of the largest aircraft in the world and the largest airlifter in the Air Force inventory. The aircraft can carry a fully equipped combat-ready military unit to any point in the world on short notice and then provide the supplies required to help sustain the fighting force.



Features

The C-5 has a greater capacity than any other airlifter. It has the ability to carry 36 standard pallets and 81 troops simultaneously. The Galaxy is also capable of carrying any of the Army's air-transportable combat equipment, including such bulky items as the 74-ton mobile scissors bridge. It can also carry outsize and oversize cargo over intercontinental ranges and can take off or land in relatively short distances. Ground crews are able to load and off-load the C-5 simultaneously at the front and rear cargo openings, reducing cargo transfer times.

Other features of the C-5 are:

- Able to operate on runways 6,000 feet long (1,829 meters).
- Five landing gear totaling 28 wheels to distribute the weight.
- Nose and aft doors that open the full width and height of the cargo compartment to permit faster and easier loading.
- A "kneeling" landing gear system that permits lowering the parked aircraft to facilitate drive-on/drive-off vehicle loading and adjusts the cargo floor to standard truck-bed height.
- Full width drive-on ramps at each end for loading double rows of vehicles.
- A maintenance diagnostics system that records and analyzes data from more than 800 (C-5A) and 7000 (C-5M) test points so that maintenance repair time is reduced.

The C-5 has the distinctive high T-tail, 25-degree wing sweep, and four turbofan engines mounted on pylons beneath the wings.

The C-5 has 12 internal wing tanks with a total capacity of 51,150 gallons (194,370 liters) of fuel -- enough to fill 6 1/2 regular size railroad tank cars. A full fuel load weighs 332,500 pounds (150,820 kilograms). A C-5 with a cargo load of 270,000 pounds (122,472 kilograms) can fly 2,150 nautical miles, offload, and fly to a second base 500 nautical miles away from the original destination -- all without aerial refueling. With aerial refueling, the aircraft's range is limited only by crew endurance.

Background

Lockheed-Georgia Co. delivered the first operational Galaxy to the 437th Airlift Wing, Charleston Air Force Base, now known as Joint Base Charleston, S.C., in June 1970. C-5s are operated by active-duty, Reserve, and Air National Guard crews. They are currently stationed at Dover AFB, Del.; Travis AFB, Calif.; Lackland AFB, Texas; Martinsburg ANGB, W.V.; Memphis ANGB, Tenn. and Westover Air Reserve Base, Mass.

In March 1989, the last of 50 C-5Bs was added to the 76 C-5As in the Air Force's airlift force structure. The C-5B includes all C-5A improvements as well as more than 100 additional system modifications to improve reliability and maintainability.

Based on a study showing 80 percent of the C-5 airframe service life remaining, AMC began an aggressive program to modernize the C-5 in 1998. The C-5 Avionics Modernization Program included upgrading the avionics to improve communications, navigation and surveillance/air traffic management compliance. The upgrade also added new safety equipment and installed a new autopilot system.

Another part of the C-5 modernization plan is a comprehensive Reliability Enhancement and Re-engining Program (RERP). Fifty-two C-5s (1A, 2C's, & 49B's) will receive the RERP modification by FY17. The centerpiece of this program is the General Electric CF6-80C2 (F-138) commercial engine. This engine delivers a 22 percent increase in thrust, a 30 percent shorter take-off roll, has a 58 percent faster climb rate and will allow significantly more cargo to be carried over longer distances. With its new engine and other system upgrades, the RERP modified C-5A/B/Cs become C-5Ms, Super Galaxy. This modernization program will make the C-5 much quieter (FAA Stage 4 Compliant) and enhance aircraft reliability and maintainability, maintain structural and system integrity, reduce cost of ownership and increase operational capability well into the 21st century.

In FY04 and FY12 Congress authorized the retirement of 46 C-5As. In FY06 one C-5B crashed at Dover AFB, Del., and was not repairable. The resulting fleet size from these events is 79, i.e., 29 C-5As and 52 C5B/C/M.

General Characteristics

Primary Function: Outsize cargo transport

Prime Contractor: Lockheed-Georgia Co.

Power Plant: Four General Electric TF-39 engines (C-5A,B,C)/ Four F-138 General Electric engines (C-5M)

Thrust: 43,000 pounds, each engine (C-5A,B,C)/ 51,250 pounds, each engine (C-5M)

Wingspan: 222.9 feet (67.89 meters)

Length: 247.1 feet (75.3 meters)

Height: 65.1 feet (19.84 meters)

Cargo Compartment: height , 13.5 feet (4.11 meters); width, 19 feet (5.79 meters); length, 143 feet, 9 in (43.8 meters)

Pallet Positions: 36

Maximum Cargo: 270,000 pounds (122,472 kilograms)

Maximum Takeoff Weight: 840,000 pounds (381,024 kilograms)

Speed: 518 mph (.77 Mach)

Unrefueled Range of C-5M: About 4,800 nautical miles, e.g., Dover AFB, Del., to Incirlik AB, Turkey, with 120,000 pounds (wartime planned load) of cargo. About 7,000 nautical miles with no cargo on board.

Crew: 7 (pilot, co-pilot, two flight engineers and three loadmasters)

Fly Away Unit Cost: C-5A - \$152.8 million (fiscal 1998 constant dollars); C-5B - \$179 million (fiscal 1998 constant dollars); C-5C (Space Cargo Modification)- \$88 million (fiscal 1998 constant dollars); C-5M (RERP Modification) -\$90 million (fiscal 2009 constant dollars)

Deployed: C-5A - 1970, C-5B - 1986, C-5C - 1988, C-5M - 2009

Inventory: Total C-5 fleet changes monthly based on congressional approval of C-5A retirements; 52 C-5Ms will be in the inventory by FY17, eight C-5Ms have been delivered through Aug 2012.

Point of Contact

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