



Integrated Defense Systems  
Global Mobility Systems  
Communications  
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**Global Mobility Systems  
Precision Engagement and Mobility  
Systems**

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**C-17 Globemaster III Backgrounder**

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**Description & Purpose:**

The Boeing C-17 Globemaster III is designed to fulfill military and humanitarian airlift needs well into the 21st century. A high-wing, four-engine, T-tailed aircraft with a rear-loading ramp, the C-17 can carry large combat equipment and troops or humanitarian aid across international distances directly to small austere airfields anywhere in the world.

With a payload of 160,000 pounds, the C-17 can take off from a 7,600-foot airfield, fly 2,400 nautical miles, and land on a small, austere airfield in 3,000 feet or less. The C-17 is equipped with an externally blown flap system that allows a steep, low-speed final approach and low-landing speeds for routine short-field landings.

**Customers:**

Boeing is under contract with the U.S. Air Force to design, build and deliver 180 C-17s through 2008. Boeing delivered the 146th C-17 to the Air Force in February 2006, when the "Spirit of Hawaii," arrived at Hickam Air Force Base, Hawaii. The aircraft is the first U.S. Air Force C-17 to be based outside the continental U.S., and the first of 16 C-17s to join the Pacific Air Forces. Four additional C-17s are on lease to the United Kingdom Royal Air Force.

**General Characteristics:**

<b>Length:</b>	174 feet (53.04 m)
<b>Height at Tail:</b>	55.1 feet (16.79 m)
<b>Wing Span to Wingtips:</b>	169.8 feet (51.74 m)
<b>Maximum Payload:</b>	164,900 lbs. (74,797 kg)
<b>At 4,000 nautical miles:</b>	100,300 lbs. (45,495 kg)
<b>Range with Payload:</b>	
<b>160,000 pounds:</b>	2,420 nautical miles
<b>40,000 pounds (paratroop):</b>	5,610 nautical miles
<b>Cruise Speed:</b>	0.74 – 0.77 Mach
<b>Takeoff Field Length (Max Gross Weight):</b>	7,740 ft. (2,359.15 m)
<b>Landing Field Length:</b>	
<b>160,000 lbs of Cargo:</b>	3,000 ft. (914.40 m)

A cockpit crew of two and one loadmaster operates the C-17, which can be refueled in flight. This cost-effective flight crew complement is made possible through the use of an advanced digital avionics system and advanced cargo systems. In the cargo compartment the C-17 can carry Army wheeled vehicles in two side-by-side rows. Three Bradley infantry-fighting vehicles comprise one deployment load. Similarly, the Army's newest main battle tank, the M-1, can be carried.

The four engines are Pratt & Whitney PW2040 series turboprops, designated as F117-PW-100 by the Air Force, each producing 40,440 pounds of thrust. The engines are equipped with directed-flow thrust reversers capable of deployment in flight. On the ground, a fully loaded aircraft, using engine reversers, can back up a two-percent slope.

**Background:**

The U.S. Air Force declared the first C-17 squadron operational in January 1995. Since first flight in 1991, the fleet has amassed nearly one million flying hours. C-17s have been involved in numerous contingency operations, including flying troops and equipment to Operation Joint Endeavor to support peacekeeping in Bosnia, Allied Force Operation in Kosovo, Operation Enduring Freedom in Afghanistan and Operation Iraqi Freedom.

During flight-testing at Edwards Air Force Base, Calif., C-17s set 33 world records – more than any other airlifter in history – including payload to altitude, time-to-climb, and short-takeoff-and-landing marks in which the C-17 took off in less than 1,400 feet, carried a payload of 44,000 pounds to altitude, and landed in less than 1,400 feet.

**Miscellaneous:**

C-17s are based at Charleston Air Force Base, S.C.; McChord Air Force Base, Wash.; the Air National Guard Base at Jackson, Miss.; McGuire Air Force Base, N.J.; March Air Reserve Base, Calif.; Hickam Air Force Base, Hawaii; and Altus Air Force Base, Okla. Assembly is underway on the first of 13 C-17s for Travis Air Force Base, Calif. Additional domestic basing locations will be announced by the Air Force in the near future.

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