



IDS Business Support,  
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## Rotorcraft Systems Assault Platform

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### CH-47D Chinook Helicopter Backgrounder

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#### **Description & Purpose:**

The CH-47D is a multi-mission helicopter for the U.S. Army and international defense forces. It is the most proficient and recognized transport helicopter in the world with application for the U.S. Army and numerous international customers. The legacy of the Chinook began in 1958 and continues today with the CH-47F and MH-47G configurations.

The Chinook is a true multi-role, vertical-lift platform. The primary Chinook mission is transport of artillery, troops, ammunition, fuel and supplies within military theaters of operation. CH-47s also have performed humanitarian support, disaster relief, rescue, fire-fighting and nation-building missions on six continents in all climates and conditions. Chinooks can fly more than 150 mph at full load more than 330 nautical miles with long-range fuel tanks. With a crew of three, the CH-47s can transport 44 seated troops or 24 casualty litters. The aircraft can carry palletized cargo internally, including the U.S. Army HMMWV, or sling-loaded external cargo, utilizing its triple cargo hooks for stability.

#### **High productivity**

Large external- and internal –load capabilities and high airspeeds allow the CH-47D to do the work of three utility helicopters, and give it the lowest cost-per-ton-nautical-mile of any U.S. Army helicopter.

#### **Triple-hook advantages**

The CH-47D's triple-hook system stabilizes large external loads, such as 155mm howitzers, allowing them to be carried at speeds up to 140 knots (260 km/hr) – or twice as fast as single-suspension loads. Multiple external loads (fuel blivets for example) can be delivered to three separate destinations in a single sortie.

#### **Large internal loads**

The CH-47D's cabin measures 366" x 90" x 78" (9.3 x 2.29 x 1.98m). It's big enough to lift two HMMWVs or a HMMWV plus a 105-mm howitzer and gun crew, yet its fuselage is only 12 inches (30.5 cm) longer than the Army's UH-60 Black Hawk utility helicopter.

#### **Customer(s)**

Chinooks are currently in use by the U.S. Army, U.S. Army Reserve and National Guard and International armed forces. Under the U.S. Army Modernization Program, New-Build CH-47F began deliveries in 2006. Under the same program, CH-47Ds will be upgraded to Remanufactured CH-47F aircraft.

The Chinook is the longest running continual production program in The Boeing Company, and the CH-47F and MH-47G Special Operations helicopter, have brought the aircraft into a new era. Users of these configurations will enjoy the Chinook's digital benefits and significant improvements in supportability and maintainability while still relying on unparalleled performance.

## **Background**

The Boeing Chinook is a tandem rotor, heavy-lift helicopter that meets tactical and combat support mission requirements for military forces around the world. The Chinook is the world's most reliable and efficient transport helicopter, capable of handling loads up to 24,000 lbs with a maximum gross weight of 50,000 lbs. (22,668 kg). Its tandem rotor configuration also provides exceptional handling qualities that enable the CH-47 to operate in climatic, altitude and crosswind conditions that typically keep other helicopters from flying.

The first fully equipped U.S. Army Chinook designated the CH-47A, entered service in August 1962 with a gross weight of 33,000 lbs. (14,969 kg).

Boeing introduced the CH-47B in 1966 with an improved airframe and power plant provided by the T55-I-7C engines. The gross weight rose to 40,000 lbs. (18,144 kg).

The CH-47C was developed in 1967 in response to the Army's request for transporting a 15,000 lb. (6,804 kg) payload a distance of 30 nm (56 km) radius on a 95°F (35°C) day at 4000 ft. (1,219 m). Powered by T55-I-11 engines and had a gross weight capability of 46,000 lbs. (20,865 kg).

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