

Transports ground forces, supplies, ammunition, and other battle-critical cargo in support of worldwide combat and contingency operations.



DESCRIPTION AND SPECIFICATIONS

As the Army's only Future Force heavy-lift helicopter capable of intra-theater cargo movement of payloads up to 16,000 pounds in a high, hot environment, the CH-47 Chinook/Improved Cargo Helicopter (CH-47F) is an essential component of the Army vision. The CH-47F program includes the remanufacture of all CH-47Ds in the current fleet and a production line of new build aircraft to meet the total Chinook fielding requirement. The major systems upgrades include the installation of a new, fully digitized cockpit, all-new airframe components and vibration reduction structural changes in the cockpit section. The remanufactured CH-47F will also include full recapitalization of all major dynamic components to bring them to near-zero hours. Additionally, the program will remanufacture the Army's MH-47D/E fleet to the MH-47G configuration.

The CH-47F Common Avionics Architecture System (CAAS) digital cockpit will provide future growth potential and include a digital data bus that permits installation of enhanced communications and navigation equipment for improved situational awareness, mission performance, and survivability. New airframe structural components and modifications will reduce harmful vibrations, improving operation, support efficiency, and crew endurance. Other airframe modifications reduce by approximately 60 percent the time required for aircraft tear down and build-up after C-5/C-17 deployment. These modifications significantly enhance the Chinook's strategic deployment capability.

The CH-47F program will incorporate the more powerful and reliable T55-GA-714A engine and extended range fuel system currently being fielded to the CH-47D fleet. The T55-GA-714A engine improves fuel efficiency and enhances lift performance by approximately 3,900 pounds. An improved, crashworthy, extended range fuel system

will enable Chinook self-deployment and extend its operational radius. A program is also underway to reduce operation and support costs through the development of a low-maintenance rotor hub.

Max gross weight: 50,000 pounds
Max cruise speed: 170 knots/184 miles per hour
Troop capacity: 36 (33 troops plus 3 crew members)
Litter capacity: 24
Sling-load capacity: 26,000 pounds center hook; 17,000 pounds forward/aft hook; 25,000 pounds tandem
Minimum crew: 3 (pilot, co-pilot, and flight engineer)

PROGRAM STATUS

CH-47F:

- **3QFY04** First low rate initial production CH-47F delivered
- **1QFY05** Full rate production decision

T55-GA-714A Engine:

- **4QFY04** Depot maintenance work requirement verification completed (DMWR)
- **4QFY04** Total of 230 CH-47D aircraft converted (over 50 percent complete)

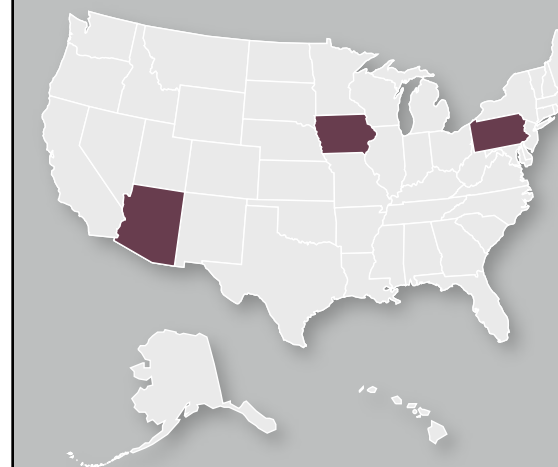
PROJECTED ACTIVITIES

CH-47F:

- **2QFY05** Full rate production lot 3 contract award
- **3QFY05** First flight CH-47F CAAS
- **3QFY06** Initial operational test phase II
- **1QFY07** Initial operational test phase III
- **3QFY07** First unit equipped

T55-GA-714A Engine:

- **3QFY05** Final DMWR delivered
- **4QFY05** Projected total of 280 CH-47D aircraft converted (approximately 65 percent complete)
- **2QFY08** Scheduled completion



CONTRACTORS

Aircraft: Boeing (Philadelphia, PA)
Cockpit Upgrade: Rockwell Collins (Cedar Rapids, IA)
Engine Upgrade: Honeywell (Phoenix, AZ)
ERFS II: Robertson Aviation (Tempe, AZ)

INVESTMENT COMPONENT

Recapitalization

ACQUISITION PHASE

- Production and Deployment