

# U.S. ARMY FACT SHEET

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AIRCRAFT

No. 2



CHINOOK Helicopter (CH47A)

## CHARACTERISTICS

<u>Gross weight</u>	33,000 lbs.	<u>Hover ceiling</u>	13,000 ft.
<u>Weight empty</u>	18,044 lbs.	<u>Rate of climb</u>	2,700 opm
<u>Payload</u>	10,067 lbs.		M.R.P.
<u>Radius of action</u>	100 nautical miles	<u>Cruise speed</u>	130 knots

## ROLE

The CH-47 medium transport helicopter provides increased mobility to U.S. Army forces in the field. Its design, size, speed and range permit it to airlift weapons, personnel and cargo, with equal ease, in support of combat operations. It has proved invaluable in rescue operations involving downed aircraft.

## BACKGROUND DEVELOPMENT

In the early 1950's Army planners established a need for a multipurpose helicopter for use in combat areas. In 1956 several aircraft firms began studies on this requirement which culminated two years later in the production of a turbine-powered helicopter believed capable of filling the Army's requirement. Tests proved this to be so and in 1958 VERTOL was selected as the prime contractor for the CH-47. Production has remained with VERTOL since that time.

## DESCRIPTION

Powered by two Lycoming T55-L-7 free turbine engines with a 10-minute rating of 2,650 horsepower, the Chinook--a tandem rotor helicopter--is 51 feet in length, 10

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feet 6 inches wide, and displays a rotor diameter of 59 feet 1 1/4 inches. Some of its more important design features include:

- a. An auxiliary power unit which drives the accessory gear box and thus can operate all helicopter systems--electrical and hydraulic--independently of the prime engines or ground support power units, while the Chinook is on the ground.
- b. Duplicate A-C electrical generating systems and duplicate A-C to D-C converters.
- c. Hydraulic engine starting system for efficient starting down to a minus 65 degrees Fahrenheit.
- d. Provisions in the cargo compartment for 33 fully-equipped combat troops or 24 litter patients.
- e. Rear loading ramp operable in flight. This ramp can also be left open in flight to accommodate overlength cargo.
- f. A utility winch for loading and unloading cargo and for rescue operations.
- g. Water landing capability with design provisions incorporated for full amphibious operations.
- h. Strength and performance capability to satisfactorily transport up to eight tons of external or internal cargo.
- i. Integral work platforms and complete provisions for installing a helicopter-transportable crane to provide ease of maintenance.

## EMPLOYMENT

Within the Airmobile Division--such as the 1st Cavalry Division (Airmobile) now in Vietnam--there are a total of 48 Chinooks assigned to the Aviation Group. Under combat conditions the Chinook may be employed to perform the following missions:

- a. Deliver 7,200 pounds of internal payload--troops or cargo--to any point 75 nautical miles distant and return with 3,600 pounds of internal cargo.
- b. Deliver 12,000 pounds of external payload to a point 20 nautical miles distant and return.

If the situation dictates, the Chinook is capable of ferry operations at a range of 878 miles.