



APACHE ATTACK HELICOPTERS - DEFENCE

News: Army to receive Apache attack helicopters in December.

What's in the news?

Originated in the USA, Apache 64E is a **twin-engine, tandem-seat helicopter** designed to accomplish a variety of operations **day or night, in a range of climactic conditions**.

Capabilities:

Primarily designed to find and destroy **air defence units, tanks and armoured vehicles**, it is armed with a **30mm automatic cannon**, wing-mounted **70mm Hydra rockets** and **Hellfire missiles**.

It is capable of **Intelligence, Surveillance Target Acquisition and Reconnaissance (ISTAR)**, escort/force protection and Command and Control. Using the distinctive Longbow radar above the main rotor blades, the **Apache 64E can detect and classify up to 256 potential targets**.

Equipments:

It is also equipped with **optical and thermal imaging sights** that are used to identify potential targets and pilot the aircraft at night and in low visibility conditions. **Range and endurance** can be increased using wing-mounted fuel tanks and have a **fully integrated Defensive Aid Suite** to protect the aircraft and two crew.

IAF and Apache

As part of a **\$600 million deal** signed with the US in **2020**, the Indian Army is set to receive **six Apache helicopters**. The Indian Air Force has **already inducted 22 Apache** helicopters as part of a separate order **signed in 2015**. The **Apache AH-64E attack helicopters** are intended to support the Army's crucial operations on the **Western front**.

- Prachand, also known as the Light Combat Helicopter (LCH), is designed for deployment on both the China and Pakistan fronts by the IAF and the Indian Army.

High-Altitude Capabilities

- The Prachand helicopter is **designed to meet the requirements of the Indian military in high-altitude areas such as Kashmir, Ladakh, and Arunachal Pradesh**.

Roles and Missions

- It primarily **functions as a close air support (CAS) aircraft in high-altitude terrain**.
- Its roles include destruction of enemy air defense (DEAD) missions, destroying enemy tanks, executing high-altitude bunker-busting operations, and intercepting slow-moving remotely piloted aircraft (RPAs).

Shakti Engine



- The helicopter is equipped with HAL's new-generation Shakti engine, co-developed with French engine-maker Safran.
- It can operate at altitudes of up to 20,000 feet. **High-Altitude Operation**

IAF'S NEW COMBAT MUSCLE APACHE AH-64E

IAF inducts 8 Apache AH-64E attack helicopters on Sept 3, 2019

Manufactured by Boeing; used by US Army and international defence forces

To replace old Russia-made Mi-35 attack helicopters

THE APACHE ADVANTAGE

Two high-performance turboshaft engines for maximum cruise speed of 284km/hr

World's most advanced multi-role combat helicopter

Advanced laser, infrared & target acquisition designation to attack targets

Laser guided precision Hellfire missiles, 70mm rockets, 30mm automatic cannon

Wing Span: **17.15 ft**

Height: **15.24ft**

SPECIFICATIONS

Primary mission gross weight	6,838Kg
Vertical rate of climb	More than 2000ft per min
Maximum rate of climb	More than 2,800ft per min

Source: Boeing, news reports



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- Prachand is the only helicopter in the world with the capability to operate at altitudes above 5,000 to 6,000 meters while carrying a substantial offensive payload.

Siachen Landings

- The helicopter has **successfully executed landings at forward camps situated at Siachen, an altitude of 4,700 meters above sea level, while carrying a 500 kg payload.**

Weaponry

- Prachand is **armed with a 20-millimeter (mm) cannon** mounted below its nose, capable of piercing light armor with a fire rate of one thousand bullets per minute. It also carries 70-mm rockets on pods on either side.
- Additionally, Prachand will be **armed with advanced Dhruvastra air-to-ground missiles**, designed to target hardened enemy shelters in high-altitude and diverse terrains.

Source: <https://www.thehindu.com/news/national/army-to-receive-apache-attack-helicopters-in-december/article68678371.ece>

