

Apache IA 24 May IMR

The Raksha Mantri led Defence Acquisition Council (DAC), the Apex decision making body on defence procurements approved the induction of 39 AH-64E (Apache) attack helicopters from US aerospace manufacturer Boeing for the Indian Army on 20 May 2017. Earlier in 2015 the DAC had approved a near 2.5 billion USD deal with Boeing for purchase of 22 Apache helicopters for the Indian Air Force. The Apache is set to replace the aging Russian built MI-35 helicopters of attack helicopters(AH). The MoD is likely to exercise the option to import additional 11 Boeing AH-64E Apache Guardian helicopters to supplement the 22 acquired for the Indian Air Force (IAF) in 2015 for over USD1.2 billion. The MoD will like to ink the contract for the 11 additional Apaches - under the same terms and conditions that applied to the IAF procurement - before the two-year deadline of 28 September 2017 expires. In the initial tranche it is envisaged that only 11 will be procured on similar terms and conditions as earlier, as the procedures allow for only 50% of the original order to be procured as a repeat order. That will imply that the requirement of the remaining 28 Apaches will be contracted separately. The 39 Apaches will form three squadrons and one each is planned to be orbatted to the three strike corps as an integral resource.

The Apache helicopters come armed with AGM-114L-3 Hellfire missiles, AGM-114 R-3 Hellfire 11 missiles, Stinger Block 1-92H missiles and the AN/APC-78 fire control systems in addition to other avionics and armament. The state of the art Apache in service with the US Army among a few other nations bridges a critical void in the Indian Army's mechanised warfare capabilities.

In addition to the laser guided precision Hellfire missiles, the Apache comes equipped with target acquisitions and designation sight as also pilot night vision sensors to locate , track, attack and destroy targets. It is also armed with 70mm rockets and 30mm automatic cannon with up to 1200 high explosive, dual purpose munitions rounds. Other operational enhancements of the Apache include:-

- Long range weapons accuracy and all weather \ impact flying capability.
- Detection of moving and stationary targets/objects without being detected.
- Classification and threat prioritization of upto 128 targets in less than a minute.
- Integrated sensors, networking, and digital communications for situational awareness, management of the combat arena in real time, and digital transmission of images and target locations to joint operations battlefield commanders.

The latest version of the Apache E Model Guardian also features an updated engine, tactical datalinks for sharing information with other friendly forces, an improved transmission, and the ability to control unmanned aerial vehicles from the cockpit.

Like most militaries, the three services are also disjointed, guarding their turf with zeal, it is not so uncommon to witness some good projects being shelved due to inter

services rivalry. For far too long the 1.2 million strong Indian Army has been fighting to induct both Armed and Attack helicopters, without much success. The Indian Air Force controls and will like to control anything and everything with wings. Having inherited Second World War organization, role and missions from the British, the Indian Armed Forces resist change. Post independence all aviation assets continued to be operated and controlled by the Indian Air Force including the erstwhile Air Observation Post (Air OP) flights albeit with pilots from the army (Artillery). In 1986, the Indian Air Force gave way and the Army Aviation took shape and control of helicopter operations employing mainly the light helicopters, Cheetahs and Chetak.

The Indian armed forces are the only one where the fleet of communication or light helicopters is almost equally distributed between the army and air force, with the medium and heavy lift entirely with the Air force. In contrast, the People's Liberation Army and Pakistani Army maintain control over a majority of the helicopters in their respective militaries. The Army has been fighting long and hard for control of the AH, mostly in vain. In Oct 2012, the Indian Army finally got an approval from the then Raksha Mantri Shri AK Antony to induct AH in the Army Aviation Corps. The approval letter according to authorisation of AH to the Army was issued on 09 Oct 2012, however, there was a catch. The letter was conditional, in that it specified that all future procurements of attack helicopters will be for the Army. The implication was that the Indian Air Force would continue to control and operate the 22 Apaches approved for procurement. The operation imperative to optimise the full potential of this force multiplier was lost in inter service rivalry and a 'please all policy'. In the present and future battlefield the AH is not only integrated in operations but an integral part of the mechanized warfare and spearheads. The analogy is much the same as followed earlier for Air OP pilots. The AH are an arm of manoeuvre operating not in concert or conjunction but as an integral part of the mechanised forces, integrated to the lowest tactical level of combat teams. In the present day tactical battlefield area (TBA) the lines and force dispositions will be blurred making it near impossible to identify friend from foe. The concept of Forward line of Troops (FLOT) is no longer applicable, hence it is an imperative that the AH, a force multiplier are operated by soldiers who fully comprehend the ground/tactical requirement of integrated operations and are able to not only communicate but anticipate the mechanised column commanders manoeuvre and support requirements. This will be feasible only if these machines are piloted by the officers having on ground experience of mechanized warfare.

The Indian Air Force's contention is flawed, as they feel that the Army is creating its own 'Mini Air Force'. These are operational requirements and best planned and executed by army officers. The Army Aviation Corps in the last three decades has grown to be a professional force, responsive to Army needs with an equally impressive record of safety, serviceability of the machines and operational effectiveness.

in HAL Light Combat Helicopter (LCH), Indian Army has been greatly involved in the product development and also has deputed some of its senior most Helicopter pilots to aid the flight trials of the program and Indian Army also has confirmed orders for 114 Helicopters which is twice than that of orders placed by Indian Air force . Defence analysts in past have argued that When IAF does not have a problem with Army operating LCH then why do they object to Army operating Apache, which is leading to duplication of assets.

There is no denying that Indian Army Aviation has come a long way from its humble beginnings. From its utilisation as an Air Observation Post to its contemporary role as an integral part of Combined Arms Team, Army Aviation's role, mandate and utility have expanded greatly and continue to do so. Given the ambitious aspirations of the Army Aviation Corps, however, there is an explicit need to facilitate and enable the Corps to fulfil its purpose. Although the Army Aviation Corps continues to be fairly efficient and operationally effective, it is falling behind various global militaries, including those of Pakistan's and China's, in terms of equipment. There is a pressing need to replace the ageing Cheetahs and Chetaks with aircrafts that dovetail with the intended vision of the Army Aviation Corps. Additionally, as the Army Aviation expands, there is a need to determine the operational posture for the Corps to decipher how it fits into the larger picture of the Indian military doctrine. To this end, there is certainly a need for an integrated tri-services approach to help facilitate joint planning and integration. Unless the three services are able to define an integrated operational philosophy, the potential for the Army Aviation's continued progress is certainly limited. Within this, however, the role of the aviation component that needs to be embedded with the land forces must be examined. This component, as noted above, relates to air assault and anti-tank helicopters, liaison and transportation helicopters, and fixed-wing aircraft for transport and logistics.

After vacillating for decades, the ministry of defence finally took the call on the crucial issue of the ownership and operation of Attack Helicopters (AH). The letter issued by the MoD clearly stipulates that the entire AH fleet will be owned, operated and maintained by the

army. Though late in coming, the decision is a welcome step and will have a major impact on war fighting in the tactical battle area (TBA).

Official sources told *Jane's* that the IA is likely to exercise the option to import 11 Boeing AH-64E Apache Guardian helicopters to supplement the 22 acquired by the Indian Air Force (IAF) in 2015 for over USD1.2 billion.

The AAC is anxious to sign the deal for the additional Apaches - under the same terms and conditions that applied to the IAF procurement deal - before the two-year deadline of 28 September 2017 expires.

In keeping with the changing paradigms of modern warfare which has brought out the need for a fleet of attack helicopters as an integral component of assembled firepower, the Indian Army today needs a sizeable fleet of attack helicopters. The Long Term Perspective Plan (LTPP) of the AAC includes the requirement of a combined arm team which would help it to operate across the full spectrum of operations. These assets would be needed for fire support and direct attack roles in support of ground ..

Read more at:

<http://www.indiandefencereview.com/news/army-aviation-corps-on-the-wings-of-transformation/>

The AAC inducted in 2001 the first – Advanced Light Helicopter (ALH) Dhruv manufactured by Hindustan Aeronautics Limited (HAL). Since then, this fleet has grown rapidly and is already on the path to becoming the mainstay of the AAC for day and night operations. The weaponised version of the ALH Weapon Systems Integrated (WSI) also known as the Rudra Mk IV, is the first armed helicopter being produced indigenously and has already been inducted into the AAC in 2013. The Indian Army plans to equip t ..

The IAF is set to receive 15 heavy lift Chinook (CH-47F) helicopters...

The Indian Armed Forces have a requirement for 384 helicopters for Reconnaissance and Surveillance role to replace the ageing fleet of Cheetah and

Chetak helicopters. India plans to buy 187 single engine indigenously-designed Light Utility Helicopter (LUH) and would import 197 LUH helicopters from a foreign vendor. However, as per media reports, plans to procure 197 choppers from abroad has been cancelled. HAL has now been tasked to produce around 400 LUH for the three services.

The AAC today has a requirement of about 200 LUHs. The first flight of the indigenous LUH is expected in 2015. Production is planned to begin thereafter in 2015 with ten helicopters being produced per year. The rate of production would be scaled up to 36 helicopters per year. Delivery of 187 LUHs by HAL is to be completed by 2022. LUHs are supposed to undertake patrol, casualty evacuation and reconnaissance roles mainly in high altitude areas of 20,000 to 23,000 feet and would be effectively use ..

SPECIFICATIONS	LCA DHRUV	LCH	Boeing Apache AH-64A/D
Crew Length Rotor Diameter Height Disc Area Empty Weight Loaded Weight Max. takeoff weight Powerplant	1 or 2 15.87 m (52 ft 0.8 in) 13.20 m (43 ft 3.7 in) 4.98 m (16 ft 4.06 in) 137 m ² (1,472 ft ²) 2,502 kg (5,515 lb) 2,600 kg (5,731 lb) 5,500 kg (12,125 lb) 2 × HAL/Turbomeca Shakti turboshafts, 100 kW (1,400 shp)	2 15.8 m (51 ft 8 in) 13.3 m (43 ft 6 in) 4.7 m (15 ft 4 in) 138.9 m ² (1,472 ft ²) 2,250 kg (5,975 lb) 3,350 kg (7,410 lb) 5,800 kg (12,787 lb) 2 × HAL/Turbomeca Shakti turboshaft, 1,067 kW (1,430 shp)	2 17.73 m (58 ft 17 in) 14.63 m (48 ft 0 in) 3.87 m (12.7 ft 0 in) 168.11 m ² (1,809.5 ft ²) 5,165 kg (11,387 lb) 8,000 kg (17,650 lb) 10,433 kg (23,000 lb) 2 × General Electric T700-GE-701 and later upgraded to T700-GE-701C (1990-present) & T700-GE-701D (AH-64E) turboshafts, -701: 1,690 shp, -701C: 1,890 shp, -701D: 2,000 shp (-701: 1,260 kW, -701C: 1,409 kW, -701D: 1,490 kW)
PERFORMANCE Maximum Speed Service Ceiling Rate of Climb Power/Mass	290 km/h (180 mph, 156.58 kn) 6,096 m (20,000 ft) 10.3 m/s (2,030 ft/min) 329.73 W/kg (0.20 hp/lb)	268 km/h (166.5 mph, 145 kn) 6,500 m (21,300 ft) 12 m/s (2,362 ft/min) 327 W/kg (0.198 hp/lb)	293 km/h (182 mph, 158 kn) 6,400 m (21,000 ft) 12.7 m/s 2,500 (ft/min) 0.31 kW/kg (0.18 hp/lb)
ARMAMENT Guns Missiles	1 × 20 mm M621 cannon into the Nexter THL-20 chin mounted gun turret (Air Force & Army version) 8 Helina (Helicopter-launched Nag) Anti-tank guided missiles (planned for Air-Force & Army version)	1× 20 mm M621 cannon on Nexter THL-20 turret air-to-surface, MBDA air-to-air, anti-radiation, and Helina anti-tank missiles	1 × 30 mm (1.18 in) M230 Chain Gun with 1,200 rounds as part of the Area Weapon Subsystem Typically AGM-114 Hellfire variants; AIM-92 Stinger may also be carried

From the table above it could easily be presumed that all armed/combat helicopters could be called 'attack helicopters', albeit with varying degrees of payload/AUW capabilities.

http://www.indiastrategic.in/topstories2087_Indian_Army_inducts_Rudras_Air_wing.htm

Starting August, the Indian Army Aviation Corps has reportedly planned to raise six squadrons of armed helicopters with the phased induction of 60 Rudras on order with the HAL. The Army is also known to be acquiring 114 LCHs under development at HAL. Eventually, the Indian Army reportedly plans to raise Army Aviation Brigades one each with all its strike and pivot Corps. A squadron each of

armed/light combat helicopters could form part of these aviation brigades to meet the requirements of the third-dimensional manoeuvre arm.

The IAF on the other hand, is known to have placed an order of 65 LCHs with HAL. Together with 16 Rudras and 22 AH-64D Apache Longbow helicopters (being acquired as replacements to the existing Mi-25/35 attack helicopters of Russian origin), the IAF would have a formidable arsenal of light/heavy attack helicopters to perform myriad operational roles of its own. These could include SEAD/DEAD, Counter Air, Interdiction at varying depths inside enemy territory, Combat SAR, etc in furtherance of both air and ground battles. In addition, it could come in aid of the surface forces as a tremendous force-multiplier at the point of decision, when required.

Employment Philosophy

1. Post Parabrums, Indian Army planning saw a paradigm shift in the concept of mechanical operations along the Western Front. These were characterized by shift mob, pre-emptive off by Private Corps and premeditated launch options by strike Corps sp by massed fires. In this context, the mob differential between Air Force & Army has reduced to 12-48 hrs. The mass of air effort, in this timeframe would necessarily and rightly directed toward CAO and strat targeting. However, this would be the exact time frame when the Private &/or strike fmns would be facing the stiffest resistance ie. the break in and break out battle. With Pak's RRR concept slowly taking shape, fwd posturing of mech res would result in pitched, stalling matches on the first/second line of defence. Thus, there would be a request of employment the third dimension in the immediate tac depth. With the fixed wing assets primarily involved in CAO, AD and Strat _____, the employment of AHs become imperative for the main Pvt and Strike elements of the Army. This would

further gain credence if the launch is incident based, thus exploiting the FATA voids of the Pak Army.

2. The increased urbanisation along the Western Front coupled with ORT has reduced move space of the mech forces. The actual engagements would thus be reduced to CT level engagements with Ltd mut sp. This would create a series of battles with no clear FLOT available for fixed wg are to engage. All would thus be employed as an overhead move arm of the mech _____. Close integrations and real time communication would be imperative in these situations.

3. In the modern day battle field, enhanced ISR and data analysis would enable a Cdr to accurately predict the areas and timing of engagements. The entire 3-4 hour cycle of calling in Att Sp greatly reduces the effectiveness of this potent platform. Predictable engagements would enable a tac Cdr to place these platforms pre-emptively over the TBA.

4. The assets should belong to be the service arm which employs them. While adequate SF was available to the Indian Army, the Indian Air Force went ahead with raising of the Garuds and is in the process of expansion. Thus, the Indian Air Force argument for service specific forces was violated by the Air Force itself.

- Under a \$2.5bn deal, US defence contractor Boeing would supply 15 CH-47F Chinook heavy-lift helicopters and 22 AH-64D attack helicopters to the Indian Air Force (IAF).

- The Apache deal is hybrid, with one contract to be signed with Boeing for helicopters, and another with the US Government for 812 AGM-114L-3 Hellfire missiles, 542 AGM-114R-3 Hellfire-II missiles, 245 Stinger Block I-92H missiles and 12 AN/APG-78 fire-control radars, as reported earlier by *The Times of India*.
- The Apaches are expected to replace IAF's ageing Russian-built Mi-25/35 helicopter fleet.

The Rs 13,970 crore deal for Apache helicopters, and Rs 8,047 crore deal for Chinook helicopters have been signed with the American aerospace giant, Boeing

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- The force wants three squadrons of heavy-duty attack helicopters, among other choppers, for its three primary "strike" corps
- The Army believes it should have "full command and control" over "tactical air assets" for rapid deployment along with its strike corps
- NEW DELHI: The [Army](#) has now strongly revived its old quest for a "mini [air force](#)" of its own, in a move that has been bitterly opposed by the IAF in the past.
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- The force wants three squadrons of heavy-duty attack helicopters, among other choppers, for its three primary "strike" corps geared for rapid armoured thrusts into enemy territory.
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- For starters, the 1.3-million strong Army is seeking the government's approval for acquisition of 11 Apache attack helicopters from the US as "a follow-on contract" to the earlier Rs 13,952 crore deal inked for **22 such choppers for the IAF+** .
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- "The procurement proposal is likely to be considered by the defence acquisitions council (DAC) in its meeting to be chaired by defence minister Arun Jaitley on Saturday," said a defence ministry source.
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- The Army is in a hurry because the "50% repeat order option", with the same terms and conditions, can be exercised only till September 28 since the original contract was inked on that date in 2015.
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- One part of that "hybrid" deal had been inked with Boeing for the choppers, while the other for its weapons, radars and electronic warfare suites was signed with the US government. Apart from the 22 Apaches to be delivered to IAF from July 2019 onwards, the contract also involves acquisition of 812 AGM-114L-3 Hellfire Longbow missiles, 542 AGM-114R-3 Hellfire-II missiles, 245 Stinger Block I-92H missiles and 12 AN/APG-78 fire-control radars.
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- Even during the procurement process for the 22 Apaches, the Army had demanded their "ownership and control" because helicopter gunships are used as the "air manoeuvre arm" of ground forces to target enemy infantry and tanks the world over.
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The Army believes it should have "full command and control" over "tactical air assets" for rapid deployment along with its strike corps, while the IAF should concentrate on its "larger strategic role". The IAF, in turn, had contended it should retain all attack and medium-lift helicopters because it would be "very expensive" if the Army duplicated efforts and resources by getting its own "little air force".

The then UPA government had ruled that the first 22 Apaches would go to IAF to add to its two existing, but ageing, squadrons of Russian-origin Mi-25/35 attack helicopters. But it also held "future" procurements of attack helicopters would be for the Army, granting "in principle approval" to its case for raising three squadrons (13 choppers each) for the strike formations - 1 Corps (Mathura), 2 Corps (Ambala) and 21 Corps (Bhopal).

Army Aviation Corps, raised in 1986, has over 250 Chetak/Cheetah light choppers and Dhruv advanced light helicopters. It should also get attack helicopters now since their control by IAF is a sub-optimal arrangement," said a senior officer.

The Army's long-term plans include three helicopter squadrons (armed/attack, reconnaissance and tactical lift) each for all its 14 corps as well as "a flight" of five fixed-wing aircraft each for its six regional or operational commands.

- Two high-performance turboshaft engines and maximum cruise speed of 284 kph
- Laser, infrared, and other systems (including target acquisition designation sight/pilot night vision sensor) to locate, track, and attack targets
- A combination of laser-guided precision Hellfire missiles, 70mm rockets, and a 30mm automatic cannon with up to 1,200 high-explosive, dual-purpose ammunition rounds

Boeing's AH-64D Apache and the AH-64D Apache Longbow have numerous enhancements, including:

- Longer-range weapons accuracy and all-weather/night fighting
- Detection of objects (moving or stationary) without being detected
- Classification and threat-prioritization of up to 128 targets in less than a minute
- Integrated sensors, networking, and digital communications for situational awareness, management of the combat arena in real time, and digital transmission of images and target locations to joint operations battlefield commanders