

India Today
18 May, 2016

India successfully test fires Prithvi-II missile: 5 things you should definitely know about the missile

Prithvi II is the first missile to be made by DRDO under the Integrated Guided Missile Development Program.

Prithvi-II, an indigenously developed nuclear capable missile was successfully test fired from Chandipur in Odisha on May 18, 2016.

Prithvi II is the first missile to be made under the Integrated Guided Missile Development Program (IGMDP) by the Defence Research and Analysis wing of Ministry of Defence, known as the Defence Research and Development Organization (DRDO).

Here are 5 important things you should not miss about Prithvi II missile:

- 1.** Prithvi II is a series of short range ballistic missiles launched to combat opponents in war-like situations. It also assists in surface to surface fighting and precisely hitting their intended target. This missile has been developed mainly to be used by the Indian Air Force (IAF).
- 2.** The first test fire of this missile was carried out in 1996 and its development stage was completed in the year 2004. Presently, it has evolved into one of the most successful Indian missiles.
- 3.** With constant efforts of the scientists of DRDO, the range and precision of this missile has been improved considerably as currently, this potent missile has the strike range of 350 kilometers and can carry the load of nuclear warhead up to 1000 kilogram mass (exact range being 500-1000 kilograms).
- 4.** Inducted by the Strategic Forces Command (SFC) in 2003 to enhance the country's nuclear arsenal in 2003, this special missile turns out to be India's first missile to be developed under the Integrated Guided Missile Development Program, a program initiated by Ministry of Defence primarily for carrying out comprehensive research and making nuclear capable missiles.
- 5.** These nuclear tests are carried out by randomly choosing missiles from the production stock and India's total military arsenal. This is done to test our nation's progress and emergency preparations if a war-like situation ever arises without any prior announcement.

The last test fire of Prithvi II was successfully completed on February 16, 2016 from the same test range in Odisha.

Deccan Chronicle
18 May, 2016

India successfully test fires Prithvi-II missile

The medium range missile is capable of carrying 500 kg to 1000 kg of warheads and is thrust by liquid propulsion twin engines.



The battlefield missile has flight duration of 483 seconds and a peak altitude of 43.5 kilometres.

Chandipur (Odisha): India successfully test fired its indigenously developed Prithvi-II missile from Chandipur, off Odisha coast on Wednesday.

The medium range missile is capable of carrying 500 kg to 1000 kg of warheads and is thrustured by liquid propulsion twin engines.

As part of a user trial, the 4,600 kilogram missile with a strike range of 350 kilometer, the surface-to-surface Prithvi-II test was carried out from a mobile launcher from launch complex-3 of the Integrated Test Range at around 9:40 hrs.

The battlefield missile has flight duration of 483 seconds and a peak altitude of 43.5 kilometres.

The launch activities were carried out by the Strategic Force Command and monitored by the DRDO scientists.

The first missile to be developed by DRDO under India's Integrated Guided Missile Development Program, Prithvi-II was inducted into India's armed forces in 2003.

The last user trial of Prithvi-II was successfully conducted on February 16, 2016 from the same test range in Odisha.

Pakistan had earlier said that it will acquire advanced technology to improve its defence and will also raise India's latest development at the International arena.

Adviser to the Prime Minister on Foreign Affairs Sartaj Aziz has said that Islamabad will continue to upgrade its defensive capabilities. Assuring that Pakistan would raise its voice at the international level against India's defense developments, the diplomat alleged that India is enjoying the cooperation of the United States, as Washington thinks a strong India is vital to contain China.

*Business Standard
18 May, 2016*

India successfully test fires indigenously developed missile

The Prithvi-II is capable of carrying 500 kg to 1,000 kg of warheads and is thrustured by liquid propulsion twin engines

India successfully test-fired its indigenously developed nuclear capable Prithvi-II missile as part of a user trial by the army from a test range at Chandipur in Odisha on Wednesday.

The trial of the surface-to-surface missile was carried out from a mobile launcher from launch complex-3 of the Integrated Test Range (ITR) at around 0940 hrs, defence sources said.

Sources said there was plan for two trials of Prithvi-2 in quick succession. However, after the successful trial of the first one, the second trial was abandoned due to technical problem, they said.

A similar twin trial was conducted on October 12, 2009 from the same base where both were successful.

With a strike range of 350 km, the Prithvi-II is capable of carrying 500 kg to 1,000 kg of warheads and is thrust by liquid propulsion twin engines. It uses advanced inertial guidance system with manoeuvring trajectory to hit its target.

The missile was randomly chosen from the production stock and the entire launch activities were carried out by the specially formed strategic force command (SFC) and monitored by the scientists of Defence Research and Development Organisation (DRDO) as part of training exercise, a defence scientist said.

"The missile trajectory was tracked by DRDO radars, electro-optical tracking systems and telemetry stations located along the coast of Odisha," sources said.

The downrange teams on board the ship deployed near the designated impact point in the Bay of Bengal monitored the terminal events and splashdown, they said.

Inducted into Indian armed forces in 2003, the nine-metre-tall, single-stage liquid-fueled Prithvi II is the first missile to be developed by DRDO under India's prestigious IGMDP (Integrated Guided Missile Development Program) and is now a proven technology, defence sources said.

Such training launches clearly indicate India's operational readiness to meet any eventuality and also establishes the reliability of this deterrent component of India's Strategic arsenal, they said.

The last user trial of Prithvi-II was successfully conducted on February 16, 2016 from the same test range in Odisha.

वायुसेना प्रमुख ने 30 मिनट तक उड़ाया तेजस

■ विप्र/एजेसियां, नई दिल्ली : भारतीय वायुसेना के प्रमुख एयर चीफ मार्शल अरूप राहा ने मंगलवार को भारत में निर्मित लड़ाकू विमान तेजस से उड़ान भरी। बेंगलुरु में राहा ने विमान की क्षमताओं को जांचने के लिए उसे 30 मिनट तक उड़ाया। ऐसा करने वाले वह भारतीय वायुसेना के पहले चीफ हैं। तेजस को एयरोनॉटिक्स डिवेलपमेंट एजेंसी (एडीए) ने डिजाइन किया है। निर्माण हिंदुस्तान एयरोनॉटिक्स लिमिटेड (एचएएल) ने किया है। अरूप ने बताया, 'विमान काफी अच्छा है। हमारे अन्य विमानों के साथ यह शामिल हो सकता है।'

33	साल लगे तेजस के निर्माण में
2001	में भरी थी पहली उड़ान
3,050	फ्लाईंग टेस्ट हो चुके हैं अब तक
20	तेजस मिलेंगे वायुसेना को 2018 तक
100	विमान मिलेंगे 2026 तक
40	बदलाव की मांग की थी वायुसेना ने
275	करोड़ लगेंगे एक विमान बनाने में

खासियत

1350 प्रति घंटा अधिकतम स्पीड

12 टन है वजन

1700 किमी. उड़ सकता है नॉन स्टॉप



मिग 21 को रिप्लेस करेगा

तेजस पुराने पड़ चुके मिग-21 को रिप्लेस करेगा। केवल एक इंजन होने की वजह से यह बहुत हल्का और फुर्तीला है। हालांकि यही इसकी कमजोरी भी बताई जाती है। वायुसेना की ओर से बदलाव की मांग के बाद एडवांस्ड अमेरिकी इंजन लगाकर इसका मार्क-2 वर्जन तैयार किया जाएगा। बदलते वक्त के साथ मिग-21 और मिग-27 विमान की सर्विस काफी कमजोर हो चुकी है।

मल्टी रोल सुपरसॉनिक फाइटर जेट

हवा से हवा, हवा से जमीन पर हमला करने में सक्षम मिड-एयर रिफ्यूलिंग की जा सकती है

पिछले दिनों युद्धाभ्यास में इसने मिसाइल दागे थे

अडवांस्ड रेडार और हेल्मेट माउंटेड डिस्प्ले साइट

विदेशों में भी पहुंच

इसी साल बहरीन के एयरशो में तेजस ने उड़ान भरकर अपनी क्षमता का प्रदर्शन किया था। इसके बाद श्रीलंका और इजिप्ट जैसे देशों ने पाकिस्तान और चीन की मदद से बने जेएफ-17 के बजाय इस विमान को खरीदने में रुचि जताई है।

सुखोई से आज उड़ान भरेंगे रिज्जु

केंद्रीय गृह राज्य मंत्री किरण रिज्जु बुधवार को पंजाब के हलवाड़ा एयरबेस से वायुसेना के सुखोई-30 एमकेआई सुपरसॉनिक फाइटर जेट की उड़ान का अनुभव लेंगे। यह विमान भारतीय वायुसेना के युद्धक बेड़े का सबसे तेज फाइटर जेट है।

वायुसेना प्रमुख ने तेजस में भरी उड़ान, रचा इतिहास

वायुसेना प्रमुख एयर चीफ मार्शल अरूप राहा ने स्वदेशी तकनीक से निर्मित हल्के लड़ाकू विमान (एलसीए) 'तेजस' में उड़ान भरकर एक नया इतिहास रच दिया

बैंगलूरु. वायुसेना प्रमुख एयर चीफ मार्शल अरूप राहा ने स्वदेशी तकनीक से निर्मित हल्के लड़ाकू विमान (एलसीए) 'तेजस' में उड़ान भरकर एक नया इतिहास रच दिया। राहा देश के पहले ऐसे वायुसेना प्रमुख हैं जिन्होंने स्वदेशी युद्धक को उड़ाया।

यहां मंगलवार को एचएएल हवाई अड्डे पर करीब 12 बजे अरूप राहा ने तेजस ट्विन सीटर प्रशिक्षण विमान में गुरप कैप्टन एम.रंगाचारी के साथ उड़ान भरी और तकरीबन 30 मिनट हवा में बिताए। इस दौरान राहा ने विमान को खुद नियंत्रित किया और कई एयरोबैटिक मैनुवर के जरिए तेजस की योग्यता, मारक क्षमता, एवियोनिक्स और उसकी परिचालन क्षमता का परीक्षण किया।

इस दौरान उन्होंने सिमुलेशन के जरिए हवा से हवा में मार करने, हवा से जमीन पर आक्रमण करने की तकनीक और योग्यता, राडारों के उन्नत मोड़ और हेलमेट माउंटेड डिस्प्ले साइट (एचएमडीएस) को भी परखा। करीब 12:30 बजे लैंड करने के बाद प्रत्यक्ष रूप से प्रसन्न नजर आ रहे वायुसेना प्रमुख ने तेजस की प्रशंसा की। उन्होंने कहा 'तेजस में उनकी यह मेरी पहली उड़ान है। वायुसेना की परिचालन जरूरतों को पूरा करने के लिए के लिए यह एक शानदार एयरक्राफ्ट है।

खुद एक फाइटर पायलट रहे राहा ने तेजस की उड़ान भरने की योग्यता की तारीफ की और एचएएल की टीम को बधाई दी। एचएएल में तेजस का शृंखला उत्पादन भी शुरू हो चुका है। एचएएल के अध्यक्ष एवं प्रबंध निदेशक टी.सुवर्ण राजू ने कहा कि वायुसेना प्रमुखद्वारा इसमें उड़ाने भरने के फैसले से यह साबित हो जाता है कि वायुसेना को इस युद्धक पर पूरा भरोसा है। उन्होंने एचएएल की योग्यता पर फिर से भरोसा जताया है। यह हौसला बढ़ाने वाला कदम है।

एचएएल ने कहा है कि तेजस के पहले स्क्वाड्रन का गठन जुलाई महीने में होगा। पहले स्क्वाड्रन में चार तेजस होंगे और उनकी तैनाती एचएएल हवाई अड्डे पर ही होगी। वायुसेना के पायलटों द्वारा परखे जाने के बाद स्क्वाड्रन को कोयम्बतूर स्थित सुलुरु वायुसेना केंद्र पर स्थानांतरित कर दिया जाएगा।

गौरतलब है कि पिछले दिनों तेजस ने पोकरण में हुए वायुसेना के युद्धाभ्यास आयरन फिस्ट में मिसाइल दागे थे। इसी साल बहरीन के एयर शो में भी तेजस ने उड़ान भरकर अपनी क्षमता का प्रदर्शन किया था। तेजस वायुसेना के बेड़े में पुराने पड़ चुके मिग-21 की कमी को पूरा करेगा।

Air force chief flies high in Tejas

By Raghu Krishnan

IAF has placed an order of 120 light-combat aircraft

Air Chief Marshal Arup Raha on Tuesday flew the home-grown light-combat aircraft Tejas, officially signalling to the Indian Air Force pilots to begin flying the fourth-generation fighter in their squadrons.

Raha, with over 3,400 hours of flying experience, took off on a trainer for a 25-minute sortie over the Bengaluru skies.

“It shows the commitment of the IAF towards the aircraft,” said Kota Harinarayana, the chief designer and former programme head of the Tejas aircraft. “In the years to come, the Tejas will be the backbone of the Indian Air Force (IAF). They have committed to an order for 120 aircraft. It is now for the production agency to deliver.”

The test pilots of IAF's Aircraft and Systems Testing Establishment (ASTE), the school that tests and certifies every aircraft type used by the force, have flown the single-engine supersonic fighter over 3,145 sorties, according to the Aeronautical Development Agency.

The aircraft is powered by a GE-404 engine and an advanced version that will see modifications in the structure. It will have a more powerful GE-414 power plant made by General Electric.

Tejas uses fly-by wire technology that enables a pilot to control the plane electronically through on-board computers.

Since the first flight of the light-combat aircraft's (LCA's) technology demonstrator in January 2001, Tejas has flown sorties across regions in India, including desert and high altitude in the Himalayas have been without any mishap - a rarity in new aircraft testing globally.

The first squadron of Tejas will be raised at the IAF's Sullur base in Coimbatore by July. The air force expects to raise six squadrons of the homegrown fighter in a decade. Hindustan Aeronautics Ltd, the public sector plane maker will manufacture the aircraft at its facility in Bengaluru.

“The aircraft has to be inducted. Only then will you actually be able to use the platform effectively,” said Harinarayana.

Air Chief Marshal Raha's sortie on the trainer aircraft also shows the confidence in the force for the aircraft, once dismissed as a dud project of the DRDO. Kota Harinarayana.

The Pioneer
18 May, 2016

Air Chief Flies Indigenous Tejas over B'luru Skies

Air Chief Marshal Arup Raha flew his maiden flight in India's indigenously built Light Combat Aircraft Tejas over the Bengaluru skies on Tuesday. In his 30 minutes sortie IAF chief along with Group Captain M Rangachari in the twin-seater trainer aircraft tested the abilities of HAL built Tejas which is crucial for Indian Air Force.

An ace pilot himself, Raha is the first Chief of Air Staff to fly the indigenously designed and produced Tejas and assessed the advanced modes of the radar and Helmet Mounted Display Sight (HMDs).

According to an HAL Press release the Air Chief Marshal carried out manoeuvre in the entire flying envelope of the aircraft and also he carried out simulated air to air and air to ground attacks.

“It is my first sortie in Tejas, it is a good aircraft for induction into IAF operations,” Raha was quoted as saying by the aircraft maker Hindustan Aeronautics Limited(HAL).

HAL said Raha appreciated the flying qualities of the aircraft and congratulated the entire team of HAL and others involved in getting the LCA programme to this stage.

“It is a morale boosting gesture from the IAF Chief that reposes great confidence of our valuable customer in our abilities,” HAL CMD T Suvarna Raju said.

During the sortie, the Air chief checked for himself the takeoff, climb performances and agility of the aircraft by carrying out aerobatic manoeuvres, a Defence release said.

This was also an opportunity to see the integration of avionics, simulated weapon integration and to get a feel of operational capability during the flight, it said. The series production of the Tejas aircraft has already commenced at HAL Bengaluru and the first squadron of the LCA was expected to be formed by July 2016, HAL said.

The Air Chief also inaugurated LCA Painting hangar at HAL’s LCA Tejas Division, and took stock of HTT-40 (Basic Trainer) which was parked on the tarmac besides visiting LCA production line and other facilities.

IAF currently plans to acquire 120 Tejas aircraft, with 100 of these having major modifications.

The force wants Active Electrically Scanned Array (AESA) Radar, Unified Electronic Warfare (EW) Suite, mid-air refuelling capacity and beyond the vision range missiles.

As per the production plan, six aircraft will be made this year and HAL will subsequently scale it up to eight and 16 aircraft per year.

The Deputy IAF chief, Air Marshal SBP Sinha flew Tejas in September 2014.

A proposal for doubling production of Tejas — to 16 from eight per annum is being processed. The cost of its capacity expansion (Rs 1,259 crore) will be shared by HAL (50 percent) and 25 percent each by IAF and Indian Navy. Though IAF gave the initial operational clearance (IOC) to fly Tejas by its pilots in December 2013, it is yet to give the final operation clearance (FOC) for induction as it is waiting for certification of its trials, including use of various weapons for target hits. The IAF wants to induct Tejas into its fleet to replace its ageing Soviet-era MiG-21 fleet.

As a fourth generation aircraft, Tejas can fly at 1,350 km per hour and is comparable to the world’s best fighters, including French Mirage 2000, American F-16 and Swedish Gripen.

As a single engine, multi-role supersonic fighter, Tejas weighs 8.5 tonnes and can carry three tonnes of weapons, including air-to-air missiles, laser guided bombs, guns, conventional/retarded bombs and beyond visual range missiles.

In a first, IAF chief flies Tejas fighter trainer in Bengaluru

The Indian Air Force chief, Air Chief Marshal Arup Raha, flew a trainer version of the indigenous Tejas Light Combat Aircraft (LCA) over the city under a cloudy sky on Tuesday, an official said.

“Air Chief Marshal Raha flew in the twin-seater Tejas trainer (Pilot Version-6) for 30 minutes to check its capabilities and landed safely at the HAL airport along with IAF Group Captain M Rangachari,” IAF spokesperson Wing Commander Anupam Banerjee said.

Air Chief Marshal Raha became the first IAF chief to fly the home-grown fighter, designed and developed by the Aeronautical Development Agency (ADA) of the state-run Defence Research and Development Organisation (DRDO) and built by defence behemoth Hindustan Aeronautics Ltd (HAL).

“It’s a good aircraft to fly and fit to be inducted into our fleet,” Air Chief Marshal Raha told air warriors at the IAF’s Aircraft Systems Testing Establishment (ASTE) at the defence airport.

HAL spokesman Gopal Sutar said Air Chief Marshal Raha piloted the aircraft during the 30-minute sortie and conducted aerial manoeuvres to check its versatility.

The deputy IAF chief, Air Marshal SBP Sinha flew Tejas in September 2014.

As an experienced fighter pilot, Air Chief Marshal Raha, 61, is a qualified flying instructor and a fighter combat leader.

He also took salute at the graduation ceremony of the 38th flight test course of ASTE, where the IAF conducts flight testing of aircraft and integrates weapons and systems into its fleet.

The test pilots school is one of the six of its kind in the world, where test pilots and flight test engineers are trained for the IAF.

Indigenous fighter aircraft like LCA and Advanced light Helicopter (ALH) of HAL and Airborne Early Warning and Communication (AEWC) aircraft of the DRDO’s Centre for Airborne Systems (CAS) are test flown by pilots trained at the ASTE school.

Air Chief Marshal Raha also opened the LCA paint hangar and visited the aircraft’s production facility in the state-run complex.

The IAF, which plans to induct 120 Tejas fighters, including 100 of modified versions in its frontline fleet, will initially receive four from HAL to raise its first LCA squadron this year.

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The Tribune
18 May, 2016

Tejas ready for IAF ops: Raha

Air Chief takes maiden flight in jet I First squadron to come up by July

IAF Chief Marshal Arup Raha today took his maiden flight in India's homegrown Light Combat Aircraft Tejas, calling it "good" for induction. It seems to be a signal that the Indian Air Force will welcome the planes and instil confidence in the local product even as it awaits a final operational clearance.

"It is my first sortie in Tejas. It is a good aircraft for induction into IAF operations," Raha was quoted as saying by the Bangalore-based Hindustan Aeronautics Limited (HAL). The HAL is developing the plane, which has flown over 3,000 test flights since the first prototype flew in 2001. The IAF Chief flew the plane for about 30 minutes at HAL airport in Bangalore around noon today. Group Captain M Rangachari accompanied him in the twin-seater trainer aircraft.

"It is a moral boosting gesture from the IAF Chief and reposes great confidence of our valuable customer in our abilities," said T Suvarna Raju, Chairman and Managing Director of HAL.

The IAF Chief carried out simulated air-to-air and air-to-ground attacks. He also assessed the advanced modes of the radar and Helmet Mounted Display Sight (HMDs). The IAF Chief, who in his younger days commanded a MiG 29 squadron, congratulated the entire team of HAL and others involved in getting the LCA programme to this stage.

The IAF has 120 Tejas fighters on order. The series production of the jets has already commenced at HAL plant in Bangalore and the first squadron of the LCA is expected to be formed by July. The four aircraft will make up for the first squadron of the IAF, which will be used for training and familiarisation.

The IAF had decided to go in with an upgraded version of the existing Tejas with 43 modifications, 106 of these Tejas will come with modifications such as Actively Electrically Scanned Array Radar, Unified Electronic Warfare Suite, mid-air refueling capacity and beyond the visual range of missiles. The Ministry of Defence has set 2018 as deadline for the first aircraft to be ready with a target to complete its production by 2022-2023.

Keeping force battle-ready

- Hindustan Aeronautics Ltd has been asked to produce 16 jets annually and Rs 1,252-crore modernisation plan has been approved to ramp up capacities from the present six-seven planes annually
- The upgraded jets will fill the void created by MiG-21s and MiG-27s that will be phased out by 2022
- There are 260 Soviet-era single-engine MiG-21 and MiG-27 jets in the IAF fleet. The Air Force needs 400 jets in next 10 years

Tejas for Air Force: Air Chief Marshal Arup Raha seals it with a flight

BENGALURU: When made-in-India 'Tejas' fighter jet kissed the skies over Bengaluru on Tuesday, a Top Gun-IAF chief Air Chief Marshal Arup Raha-not only created history but also gave the country's air strike wing a 'Thumbs Up' about the aircraft ahead of formation of the first squadron.

The first Chief of Air Staff to fly an indigenous military jet, Air Chief Marshal Raha carried out simulated air-to-air and air-to-ground attacks besides the steep climbs, rolls and other aerobatic maneuvers during a 30 minute sortie in the twin-seat trainer version of 'Tejas'. "It is a good aircraft for induction into IAF operations," was how he summed up the jet's performance as he disembarked at Hindustan Aeronautics Ltd (HAL) airport.

'Tejas', which has clocked close to 3,000 hours of flawless flights and demonstrated its prowess at Bahrain international air show in January 2016, joined the IAF's fleet in January 2015. "Today's flight is significant because Air Chief Marshal Raha has demonstrated his confidence in a modern fighter designed and made in India," said Dr V.S. Arunachalam, former scientific adviser to the defence minister, who launched the project in mid-80s.

"It is a morale boosting gesture from the IAF Chief that reposes great confidence of our valuable customer in our abilities," remarked T Suvarna Raju, Chairman & Managing Director, HAL.

Sources in HAL said a mini squadron of four 'Tejas' aircraft would be formed by July this year, but the full squadron would be based in Sullur, Tamil Nadu, next year. As per the production plan, six aircraft would be made this year and HAL would subsequently scale it up to eight and 16 aircraft per year.

The Tejas

- Originally called Light Combat Aircraft (LCA), the fighter was christened 'Tejas' by Prime Minister A.B. Vajpayee.
- The IAF has ordered for 40 of these fighters, but the number could increase many fold in the near future. The order will include the two-seater trainer variant.
- The Indian Navy has evinced interest in 'Tejas' as a replacement of 'Sea Harriers' which were decommissioned recently.
- Soon after its debut at Bahrain international air show, Egypt and Sri Lanka have evinced interest in acquiring 'Tejas'

IAF chief flies LCA Tejas, reaffirms India's first indigenous fighter's capability

India's first home grown fighter jet, the Light Combat Aircraft (LCA) Tejas found a fresh stamp on its capability and suitability for being inducted in the Indian Air Force (IAF) on Tuesday when the Chief of Air Staff Air Chief Marshal Arup Raha himself flew in it.

Designed by the Aeronautical Development Agency (ADA) and produced by Hindustan Aeronautics Limited (HAL), Raha, accompanied by Group Captain M Rangachari took a 30-minute sortie over Bengaluru skies after taking off from the HAL airport. Besides

maneuvers, twin-seater trainer aircraft, the IAF chief, who is an ace ace fighter pilot himself, carried out simulated air to air and air to ground attacks in the twin-seater trainer version of the aircraft.

He also assessed the advanced modes of the radar.

"It is my first sortie in Tejas, it is a good aircraft for induction into IAF operations", Raha remarked.

Even as HAL is likely to hand over the fourth Tejas aircraft to IAF by June end, with them, IAF said it "intends to form the first squadron of the LCA on July 1, 2016."

HAL, too, in a statement corroborated that "the series production of the Tejas aircraft has already commenced at HAL Bengaluru and the first squadron of the LCA is expected to be formed by July 2016."

HAL CMD T Suvarna Raju said, "It is a moral boosting gesture from the IAF Chief and reposes great confidence of our valuable customer in our abilities."

IAF has plans to acquire 120 Tejas aircraft and the production plan includes manufacturing of six aircraft this year and scale the production to eight and 16 in subsequent two years.

Tejas is expected to replace the ageing MiG 21 and MiG 27 aircraft.

The single-engine multi-role fighter recently took part in the Bahrain International Airshow and did successful precision bombing during the exercise. It, however, missed its target on firing the Laser Guided Bomb (LGB) at the mega IAF exercise 'Iron Fist' at Pokhran in Rajasthan on March 18.

The sanctioned number of aircraft squadrons for IAF is 42 but currently only 34 of them are in place while 12 of them are to be phased out by 2020.

The New Indian Express
18 May, 2016

IAF chief flies Tejas, gives thumbs up

Bengaluru: Chief of Air Staff, Air Chief Marshal Arup Raha flew the Light Combat Aircraft (LCA) in Bengaluru on Tuesday. He is the first Chief of Air Staff to fly the aircraft.

"It is my first sortie in Tejas. It is a good aircraft for induction into IAF operations," he said after the 30-minute sortie. Group Captain M Rangachari was with him in the twin-seater trainer aircraft. He checked for himself the take-off, climb performances and agility of the aircraft by carrying out aerobatic manoeuvres.

The Air Chief, an ace fighter pilot himself, carried out simulated air-to-air and air-to-ground attacks. He also assessed the advanced modes of the radar and Helmet Mounted Display Sight (HMDs). He appreciated the flying qualities of the aircraft and congratulated the entire team of HAL and others involved in getting the LCA programme to this stage, a release issued by HAL stated.

The series production of the Tejas aircraft has already commenced at HAL and the first squadron of the LCA is expected to be ready by July. He also inaugurated the LCA Painting hangar at HAL's LCA Tejas division. He took stock of HTT-40 (basic trainer), besides visiting the production line and other facilities.

He Came, He Flew, and He Concurred

It's my first sortie in Tejas; it is a good aircraft for induction into IAF op

India's Light Combat Aircraft (LCA) Tejas on Tuesday received a much-needed 'thumbs up' from Indian Air Force (IAF) chief Air Chief Marshal Arup Raha, who flew the lightweight fighter for about 30 minutes after taking off from the HAL airport around noon.

"It's my first sortie in Tejas; it is a good aircraft for induction into IAF operations," said Raha, after flying the indigenously designed and produced LCA.

Raha flew the twin-seater trainer aircraft along with Group Captain M Rangachari.

Raha carried out manoeuvres which included simulated air-to-air and air-to-ground attacks. He also assessed the advanced modes of the radar and Helmet Mounted Display Sight (HMDs). An ace fighter pilot himself, Raha appreciated the flying qualities of the aircraft and congratulated the entire team of HAL and others involved in getting the LCA programme to this stage.

"It is a morale boosting gesture from the IAF chief and reposes great confidence of our valuable customer in our abilities," said T Suvarna Raju, chairman and managing director of Hindustan Aeronautics Limited (HAL), which is manufacturing the aircraft which is awaiting its final operational clearance.

The series production of the Tejas aircraft has already commenced at HAL Bengaluru and the first squadron of the LCA is expected to be formed by July 2016.

The LCA Tejas together with its variants is the smallest and lightest multi-role supersonic fighter aircraft of its class. This single engine, compound-delta-wing, tailless aircraft is designed and developed by Aeronautical Development Agency with HAL as the principal partner along with Defence Research & Development Organisation (DRDO), Council of Scientific and Industrial Research (CSIR), Bharat Electronics Limited (BEL), Directorate General of Aeronautical Quality Assurance (DGAQA), IAF and Indian Navy to meet diverse needs of the last two which are the main customers to be operating the fighter aircraft.

However, despite all the cheer, Tejas's final operational clearance (FOC) seems to be still far away after being repeatedly delayed so far.

According to IAF and HAL officials, to obtain the FOC, the fighter had to be certified for integration of Derby and Python BVR (Beyond Visual Range) missiles weighing 150 kg with a range of 70 km, as well as a Gryazev-Shipunov GSh-23 gun; an air-to-air refuelling probe supplied by Cobham; increasing the angle of attack from 24 to 28 degrees; enhancing the braking system, and replacing the existing nose cone radome made of composites with a quartz model in a bid to increase the current radar range of 45-50 km to more than 80 km.

These modifications were expected to be completed within 15 months of the second round of the initial operational clearance for the aircraft, which was obtained on January 17, 2015.

The FOC is now expected only later this year or early 2017.

Air chief Raha also inaugurated the LCA Painting hangar at HAL's LCA Tejas Division and took stock of HTT-40 (basic trainer) which was parked on the tarmac besides visiting LCA production line and other facilities on Tuesday.

Final operational clearance for Tejas likely by year end

The latest on the front of indigenously developed Light Combat Aircraft, Tejas is not very heartening. LCA Tejas, which after its aerobatic performance at the Bahrain International Airshow 2016 in February followed with its demonstration of firing skill during Iron Fist 2016, was touted for getting a Final Operational Clearance (FOC) soon seems to have inched farther away from it.



The FOC which was expected by mid-2016 for Tejas shall now come by year end or perhaps by 2017 beginning.

What is ailing the grant of FOC as per the highly placed sources in DRDO includes integration of Air-to- Air Refuelling probe with LCA Tejas and its trials.” Some more tests of Beyond-Visual- Range Air-to- Air Missile (BVRAAM) Derby missile are still remaining. Further, radar testing is on”, said an official associated with the Project adding that in another month or two, the Air-to- Air Refuelling shall in all probability be tested in Rajasthan or from Jamnagar.

The official further added that preparations and coordination with the Indian Air Force is being chalked out for managing a target for the Derby missile here. Ironically, DRDO officials in Delhi attributed the delay in FOC to procedural lapses. When quizzed about the Laser Guided Bomb (LGB) fired from Tejas missing the target during the Exercise Iron Fist 2016, the official attributed the same to bad weather and the ‘probability percentage of failure’ inherent and indeed granted to such systems.

It is to be mentioned that LCA Tejas is a single seat, single engine multi-role light fighter aircraft developed indigenously by Hindustan Aeronautics Limited (HAL). It has the fly by wire, state of the art open architecture computer for avionics and better weapon and combat capability.

The official shared that while the ground integration of fifth generation Air- to-Air Close Combat Missile, Python 5 is over; its aerial trials along with those for Beyond-Visual-Range Air-to- Air Missile (BVRAAM) Derby missile are pending. Tejas had earlier successfully test fired the BVRAAM Derby missile. All the aforementioned form a part of the FOC consent. Box: Running behind the initial projected time for FOC, Tejas is

now aiming at getting the FOC by December end instead of mid-2016 or perhaps even 2017 beginning.

Tejas is also armed with a Russian CCM R- 73 and Laser Guided Bombs, Griffin and Paveway. Designed to replace ageing MiG fighter fleet of IAF, Ministry of Defence in January had announced plans to start full-scale production of Light Combat Aircraft (LCA) Tejas in 2017.

It is to be mentioned that India will have to make do with the Israeli Derby BVRM till its own Astra which so far has been fired from Su-30 MKI gets the operational status for Tejas. While India is eyeing export market for light combat aircraft, Tejas has been much awaited by the IAF to replace its dwindling fighter squadrons and obsolete fighter fleet.

Business Standard
18 May, 2016

Annual Conference of Relief Commissioners/ Secretaries of Disaster Management of States/UTs held today

The Annual Conference of Relief Commissioners and Secretaries of the Departments of Disaster Management of States and Union Territories was organized by the Ministry of Home Affairs here today. The Conference was convened primarily to review the status of preparedness for dealing with any natural disaster that may arise due to South West Monsoon 2016.

The Conference was inaugurated by Shri Rajiv Mehrishi, Home Secretary. Shri R.K. Jain, Member, National Disaster Management Authority addressed the participants.

Representatives of 27 States, 6 Union Territories, National Disaster Response Force, Central Ministries, Central Armed Police Forces, Indian Meteorological Department, Central Water Commission, Indian National Center for Ocean Information Service, DRDO, GSI and other Scientific Organisations, along with Armed Forces participated in the Conference.

Issues connected with disaster preparedness, early warning systems, disaster management plans of the States and Union Territories were discussed. Advance procurement of necessary relief material, checking the readiness of the equipment & communication systems, community based disaster management and coordinated approach for disaster response at the district level were highlighted.

During the conference, it was noted that the concerted efforts of all concerned have helped in minimizing the loss of precious human lives. The need for coordination among all the Central and State Government agencies was re-emphasized.

The Indian Metrological Department, Department of Space, Snow & Avalanche Study Establishment (Defence Research and Development Organisation), Central Water Commission, Indian National Centre for Ocean Information Service, Geological Survey of India, Ministry of Defence, and National Disaster Response Force made presentations on their respective field of forecasting, warning mechanism and their future plans for enhancing capability in the field of disaster management. The Conference also discussed the measures and good practices being adopted by the State Government and Government of India to address disaster management in the country.