

CURRENT AFFAIRS



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India successfully test fires Quick Reaction Surface-to-Air Missile



India successfully test-fired a Quick Reaction Surface-to-Air Missile (QRSAM) with 30-kilometre range from a test range off the Odisha coast. The missile successfully engaged its target during the flight test and met all the desired parameters. The missile was successfully flight tested against live aerial targets on August 4, 2019, from ITR, Chandipur. Two missiles have been tested against two live targets meeting complete mission objectives of engaging the targets. Developed by the Defence Research and Development Organisation (DRDO), the missile has a strike range of 25 km to 30 km. It uses solid-fuel propellant and has the capability of engaging multiple targets. Odisha: DRDO (Defence Research and Development Organisation) today successfully flight tested Quick Reaction Surface to Air Missile (QRSAM) air defence system at Balasore flight test range. The systems have been tested in final configuration with RADAR mounted on a vehicle and missiles on the launcher. The missiles with many states of the art technologies have engaged the targets at different ranges and altitudes. The systems are equipped with indigenously developed phased array radar, Inertial Navigation System, Data Link and RF seeker. The system is being developed for the Indian Army with search and track on move capability with very short reaction time. The entire mission was captured by various Electro-Optical Tracking Systems, Radar Systems and Telemetry Systems at ITR Chandipur. The sophisticated all-weather missile was test-fired from launch pad-3 of the Integrated Test Range (ITR) at Chandipur at around 11.05 a.m., said sources. The missile is equipped with electronic countermeasures against jamming by aircraft radars, sources added. (With agency inputs)

Source: Deccan Chronicle

CURRENT AFFAIRS

Foundation Stone of Space Situational Awareness Control Centre by Chairman, SIRE

Chairman, ISRO laid foundation stone for Space Situational Awareness Control Centre at Peenya, Bengaluru on 2nd August 2019, which is an important milestone in the progress of ISRO. Space Situational Awareness & Management (SSAM) has become an internationally significant area due to the ever growing manmade space debris population and the increased collision threat with operational spacecraft. Chairman, ISRO laid foundation stone for Space Situational Awareness Control Centre at Peenya, Bengaluru on 2nd August 2019, which is an important milestone in the progress of ISRO. ISRO has taken special attention to this aspect. ISRO has set up a Directorate of Space Situational Awareness and Management aiming at protecting high valued space assets from space debris close approaches and collisions. To carryout systematically all activities related to SSAM, a control centre is being established at Bengaluru. The Control Centre would facilitate the intensified activities foreseen for SSAM, in view of increasing debris population and operational space assets. The control centre would host a range of activities pertaining to protection of Indian Space assets from inactive satellites, pieces of orbiting objects, near earth asteroids and adverse space weather conditions. It would assimilate the tracking data of inactive satellites from indigenous observation facilities and generates useful information from bare observations through analysis. For sustainable use of space, the control centre would enable research activities pertaining to active debris removal, space debris modelling and mitigation.

Source: <https://www.ISRO.gov.in/>

Chandrayaan-2 Successfully enters Lunar Transfer Trajectory

The final orbit raising manoeuvre of Chandrayaan-2 spacecraft was successfully carried out today (August 14, 2019) at 02:21 am IST. During this manoeuvre, the spacecraft's liquid engine was fired for about 1203 seconds. With this, Chandrayaan-2 entered the Lunar Transfer Trajectory. Earlier, the spacecraft's orbit was progressively increased five times during July 23 to August 06, 2019. The health of the spacecraft is being continuously monitored from the Mission Operations Complex (MOX) at ISRO Telemetry, Tracking and Command Network (ISTRAC) in Bengaluru with support from Indian Deep Space Network (IDSN) antennas at Byalalu, near Bengaluru. Since its launch on July 22, 2019 by GSLV MkIII-M1 vehicle, all systems onboard Chandrayaan-2 spacecraft are performing normal. Chandrayaan-2 will approach Moon on August 20, 2019 and the spacecraft's liquid engine will be fired again to insert the spacecraft into a lunar orbit. Following this, there will be further four orbit manoeuvres to make the spacecraft enter into its final orbit passing over the lunar poles at a distance of about 100 km from the Moon's surface.

Tentative plan for future operation after Trans Lunar Injection are as follows,

	Date	Time	Orbit around moon
LOI/LBN#1	August 20, 2019	8:30-9:30	118 X 18078
LBN#2	August 21, 2019	12:30 – 13:30	121 X 4303
LBN#3	August 28, 2019	05:30 – 06:30	178 X 1411
LBN#4	August 30, 2019	18:00 – 19:00	126 X 164
LBN#5	September 01, 2019	18:00 – 19:00	114 X 128

Subsequently, Vikram lander will separate from the orbiter on September 02, 2019. Two orbit manoeuvres will be performed on the lander before the initiation of powered descent to make a soft landing on the lunar surface on September 07, 2019.

Source: <https://www.ISRO.gov.in>

Press Meet - Briefing by Dr. K Sivan, Chairman, SIRE

A Press Meet was organised today (August 20, 2019) at ISRO Headquarters, Bengaluru on the occasion of Lunar Orbit Insertion (LOI) of Chandrayaan-2 spacecraft. Dr K Sivan, Chairman, ISRO addressed and interacted with several regional, national and international media persons during the meet. The live telecast of this meet was made available on ISRO website and Youtube Channel. In his briefing, Dr. Sivan announced that "The LOI manoeuvre was performed successfully today morning using the onboard propulsion system for a firing duration of about 29 minutes. This manoeuvre precisely injected Chandrayaan-2 into an orbit around the Moon." He emphasised the unique requirement of 90 degree orbital inclination of Chandrayaan-2 and said that it was achieved by the precise execution of both the

Trans Lunar Injection (performed on August 14, 2019) and today's LOI manoeuvre. "The satellite is currently located in a lunar orbit with a distance of about 114 km at perilune (nearest point to the Moon) and 18,072 km at apolune (farthest point to the Moon)", he added. Further, Dr Sivan added that till September 01, 2019, a series of four orbit manoeuvres will be performed on Chandrayaan-2 spacecraft to enable it to enter its final orbit passing over the lunar poles at a distance of about 100 km from the Moon's surface. Subsequently, on September 02, 2019 the Vikram lander will separate from the Orbiter. Following this, orbit manoeuvres will be performed on Vikram to place it in a 100 km X 30 km orbit around the Moon. Following this, Vikram will perform a series of complex braking manoeuvres to soft land in the South polar region of the Moon between two craters, Manzinus C and Simpelius N on September 7, 2019. A few hours later, the Rover Pragyaan will roll down from Vikram and will perform *in situ* exploration of the surrounding lunar surface. The briefing by Chairman, ISRO was followed by a long interactive session with the media during which questions were asked about the scientific objectives of the Chandrayaan-2 mission, challenges and complexities involved during Vikram separation from Orbiter and its soft landing on the Moon, impact of lunar dust on landing and the release of images captured by Chandrayaan-2, mission life of Pragyaan. Chairman, ISRO answered these questions in detail.

Source: <https://www.ISRO.gov.in/>

M.S. Velpari Takes Over as Director (Operations) at HAL

Mr M.S Velpari, has taken the charge as Director (Operations)-HAL from Mr Sunil Kumar who superannuated on July 31, 2019. Earlier, he was holding the post of Chief of Project (LCA Tejas) at LCA-Tejas Division. Mr Velpari holds a Bachelor's degree in mechanical engineering from College of Engineering, Guindy, Chennai and did his Masters from IIT Madras in Aircraft Production Engineering. He joined HAL in 1984 as Management Trainee (20th batch). He gained experience in the areas of manufacturing, assembly, design, product support, customer support, indigenisation and other management functions while serving at LCA-Tejas, Aircraft, Foundry & Forge Divisions in Bengaluru and Aircraft Division at Nashik.. Mr Velpari was instrumental in sustained growth of LCA production from initial two in FY 2015-16 to eight in FY 2018-19. He took path breaking steps with the strategic outsourcing of structural assemblies of LCA-Tejas, which is poised to grow further. He played a key role in implementing the task of indigenisation of 1850 types of castings, forgings, rolled rings and rubber products at F&F Division.

Source: <https://hal-india.co.in/>

Long-awaited indigenous light combat aircraft Tejas Mk II targeted by 2022

The Aeronautical Development Agency (ADA) of the Defence Research and Development Organisation (DRDO) will unveil the Tejas Mark II with a heavier stand-off weapon capacity in the 75th year of India's independence, in 2022, and the long-awaited indigenous fighter, which will be manufactured by the state-owned Hindustan Aeronautics Ltd (HAL), will go into production by 2025-2026, two senior defence officials said on condition of anonymity. DRDO's ADA finalised the design of the 17.5 ton Tejas Mark II (Mk-II) in December 2018, and is expected to lock in the design of the fifth generation twin-engine stealth fighter for Indian Air Force (IAF) by the end of the year. ADA officials said the Mk II will have the same weight as the Mirage, Jaguar and Gripen but with a heavier GE 414 engine. The qualitative requirements were frozen in late 2018, in full consultation and with the approval of the IAF, two years after the project was redesigned. The 4.5 generation fighter will go into production after the Tejas LCA (light combat aircraft) order of 123 aircraft to replace the air force's ageing MiG21s is completed. Sanctioned by the government in 2009, the Mk II will be equipped with state-of-the-art AESA radar with the indigenously developed air-to-air missile Astra, which has a range of 70km. The beyond visual range missile is currently being tested on the IAF's Su-30 MKI fighters. ADA and IAF are also moving rapidly on the development of the advanced medium combat aircraft (AMCA). The 25-ton fighter will have all weapons in its belly and be powered by two engines capable of super-cruise speeds. AMCA will have complex S-shaped serpentine intakes. These hide the spinning turbine blades in the engine and are a key stealth feature. The super cruise feature allows the aircraft to accelerate without the use of after burners. Both features ensure minimum radar signatures. According to top DRDO officials who asked not to be named, the design of AMCA, which was approved as an initial concept in 2014, has been given a go-ahead by IAF late last year. In consultation with the air force, the design of the twin engine fighter will be frozen by the end of the year. This, too, will be made by HAL. The Tejas will be lightest member of the family; the LCA weighs just around 11 tonnes. 3 Designed as a fifth-generation stealth fighter using composite material, the AMCA will be unveiled by ADA in 2024. With a weight equivalent to the F-18 fighter, AMCA will be powered with a new engine, the search for which has already started.

Source: Hindustan Times

Manned mission:12 Indian astronauts to train in Russia

ISRO is planning to send 12 Indian astronauts to Russia, where they will undergo 15 months of intensive training, after which four will be selected for the country's first manned mission into space. The training contract between ISRO (Indian Space Research Organisation) and Glavkosmos, a subsidiary of the Russian state space corporation Roscosmos, was signed on June 27, said ISRO chairperson Dr K Sivan. The planned space foray, codenamed "Gaganyaan" (sky vehicle) is planned for December 2021, and could possibly include a woman astronaut. "This is the only thing that has been agreed upon with the Russians. All other things, such as crew seats and astronaut suits are still in the negotiation phase," Dr Sivan said. He was speaking as a chief guest at the Jain University's convocation ceremony in Bengaluru on August 26. The ISRO chairman added that the training will be conducted at the Yuri Gagarin Space Centre in Star City during which candidates will be put through the paces. During his address to students, he briefly alluded to the ongoing Chandrayaan-2 mission, saying that the agency was on tenterhooks on a daily basis because of the challenges involved. "Only 37% of soft landings have ever been successful on the moon," he said and echoed a phrase familiar to legions of Star Trek fans: "We are going where no one has gone before." The crux of the chairman's speech, however, was about the challenges of becoming successful professionally, which appeared to strike a chord with the assembled students especially after Dr Sivan clarified his own challenges in academia. "At every stage in life, I was always denied my first choice academically. After high school, I wanted to study engineering, but ended up studying BSc mathematics. Later, when I finally managed to get into an engineering university, I wanted to join the aeronautical group, but ended up in another project. I learned a valuable lesson, however: life is often not about making the best choices, it is about making the best of the opportunities given to you," he said, to thunderous applause from students. However, he added that it was also important for students to forge their own path in life, citing the high failure rate among startups in Bengaluru as being emblematic of many people trying to do the same thing, and using the same methods. "We can take inspiration from leaders, but don't try to emulate them. You may get inspired by A P J Abdul Kalam, but don't try to emulate Kalam by adopting his hairstyle. You won't go anywhere," he said to peals of laughter from the crowd.

Source: <https://www.deccanherald.com>

Images of Lunar Surface captured by Terrain Mapping Camera -2 (TMC-2) of Chandrayaan 2

Jackson is an impact crater located in the northern hemisphere of the far side of the Moon. It is a 71 km dia crater at 22.4°N and 163.1°W (shown in the inset). The interesting feature at the western outer rim of Mach crater is another impact crater, Mitra (92 km dia). It is named after Prof. Sisir Kumar Mitra, who was an Indian physicist and Padma Bhushan recipient known for his pioneering work in the field of ionosphere and Radiophysics. The Korolev crater seen in the image is a 437 km crater which has several small craters of varying sizes. Sommerfeld is a large impact crater located in the farside northern latitudes of the Moon. It is a 169km dia crater at 65.2°N and 162.4°W. It has relatively flat interior surrounded by a ring mountain and a number of smaller craters lie along the rim edge. The crater is named after Dr. Arnold Sommerfeld who is a German physicist pioneered in the field of atomic and quantum physics. North east to this crater lies the Kirkwood crater named after the American astronomer Mr Daniel Kirkwood, another well-formed impact crater which is approximately 68 km dia.

Source: <https://www.ISRO.gov.in/>

ISRO releases second set of images from Chandrayaan-2

India's boldest Moon Mission, Chandrayaan-2 has relayed a second set of lunar surface images, unprecedented in their high resolution and close-up imagery. The images were captured by the Terrain Mapping Camera-2 (TMC-2) aboard the Mission's Orbiter component. Releasing the images the Indian Space Research Organisation (ISRO) informed that the visuals were captured on August 23 from an altitude of about 4,375 km. The images show lunar craters Jackson, Mach, Korolev and Mitra (in the name of Prof. Sisir Kumar Mitra). Jackson is an impact crater located in the northern hemisphere on the far side of the Moon. "It is a 71 km dia crater at 22.4°N and 163.1°W. The interesting feature at the western outer rim of Mach crater is another impact crater, Mitra (92 km dia)," ISRO informed. Prof. Sisir Kumar Mitra was an Indian physicist and Padma Bhushan recipient known for his pioneering work in the field of ionosphere and Radiophysics. The Korolev crater seen in the image is a 437 km crater, which combines several small craters of varying sizes. The TMC-2 camera also captured other important impact craters, Sommerfeld and Kirkwood. Sommerfeld is a large impact crater located in the farside northern latitudes of the Moon. "It is a 169km dia crater at 65.2°N and 162.4°W." It has a relatively flat interior surrounded by a ring mountain and a number of smaller

craters lie along the rim edge. The space agency said the crater is named after Dr. Arnold Sommerfeld, a German physicist pioneer in the field of atomic and quantum physics. Northeast to this crater lies the Kirkwood crater, named after the American astronomer Daniel Kirkwood. This too is a well-formed impact crater, which is approximately 68 km in diameter. On August 21 2019, Chandrayaan-2 had captured its first image of the lunar surface. The black and white image identifies two spots on the lunar surface: the Mare Orientale basin and Apollo craters. The first Moon shot was captured by the Mission's Vikram Lander at a height of about 2,650 km from the lunar surface.

Source: <https://www.deccanherald.com/>

TECHNOLOGY

Laser weapons, swarm drones on DRDO menu

Directed energy weapons or DEWs are among the next bunch of military technologies that the Defence Research and Development Organisation (DRDO) is working on, Organisation Chairman Dr G. Satheesh Reddy said. Laser-based or microwave-based high-power DEWs can quietly disable enemy drones or missiles temporarily or permanently without leaving physical debris. In contrast, the ASAT or anti-satellite missile that the DRDO tested on March 27 2019, killed an orbiting Indian target satellite and left hundreds of small pieces as debris for a few months. Dr. Reddy, who is Secretary, Department of Defence R&D, said DEWs would play a major role in future warfare. "DEWs are extremely important today. The world is moving towards them. In the country too, we are doing a lot of experiments. We have been working in this area for the past three to four years to develop 10-kW and 20-kW [weapons]," he said. Hyderabad hub The DRDO's Hyderabad-based lab, Centre for High Energy Systems and Sciences (CHESS) is the node for all related activities. Dr. Reddy said technology planning for the military should start at least 10-20 years in advance. "If we also have to be a technology leader we need to lay our futuristic technologies roadmap clearly, put a good amount of resources into it and also work towards those technologies. Otherwise we will remain just technology followers," he said, delivering the 12th annual Air Chief Marshal L.M. Katre memorial lecture. The talk was organised by the Air Force Association Karnataka in honour of the former air chief who also was the chairman of Hindustan Aeronautics Ltd (HAL). Apart from its current fighter plane projects — the LCA and advanced medium combat aircraft or AMCA — India would look at pilotless hardware such combat drones or UCAVs (unmanned combat air vehicles), as well as swarm drones that fly in tandem for surveillance, attack or intelligence gathering. Any UCAV programme could also use the Kaveri as its engine.

Source: The Hindu

Gullalamoda missile testing facility to boost infra devpt

Vijayawada: After five years of dithering, the Union ministry of environment, forests and climate change has approved setting up a missile testing range in the Diviseema area of Krishna district. The area was set to undergo a facelift after it was announced that a missile testing facility would be set up at Gullalamoda near Nagayalanka. Although the area was considered conducive for testing missiles, the project could not progress owing to delay in environmental clearances. Now, with the green nod, the Defence Research and Development Organisation (DRDO) can establish the missile testing facility. According to Mr Arja Srikanth, an IRS officer from Nagayalanka who has been pursuing the matter with the Centre, the project will bring about Rs 1,000 crore worth of investment. The facility could lead to large-scale infrastructural development in the area. Ancillary and manufacturing units will also probably be set up. The 22-km long Karakatta road from Nagayalanka to Koduru along the coast has already been identified as alternate route by the DRDO. Srikanth said this will strengthen the area's potential to become a major tourist attraction. 4 DRDO had identified Nagayalanka and Kalpakkam in Tamil Nadu as best suited locations for establishing missile testing facilities. As Kalpakkam already has an atomic power plant, the DRDO had finalised Nagayalanka for the missile test facility. Nagayalanka will become the second missile testing facility in India after Balasore in Odisha. Sources said that long-range missiles can be test-fired from Nagayalanka. Missiles with more than 5,000-km-range can also be test-fired from here. Diviseema, located on the shore of the Bay of Bengal, is, identified as an ecologically sensitive area. The land where the missile testing facility is to be established falls in the notified forest area. The state government had sent the proposal to environment and forest ministry for approval in September 2014. The ministry had given its in-principle approval in 2017 and it took two more years to give stage-II and final nod. Dr G Satish Reddy, chairman of

DRDO, cleared all issues raised by the ministry to ensure environmental and wildlife protection. The environmental ministry has set 20 conditions to be fulfilled to establish the facility. The conditions, include compensatory reforestation measures and precautionary measures to protect wildlife.

Source: The Times of India

DRDO ready with anti-terrorist vehicle technology

Bhubaneswar: India is now ready with its indigenously developed Anti-terrorist Vehicles (ATV) that can withstand any kind of attacks during anti-terrorist operations in cities. Developed by Vehicles Research and Development Establishment (VRDE), a laboratory of Defence Research and Development Organisation (DRDO), the ATV can carry three combatants equipped for operations. The vehicle, weighing around three tonnes provides all-round protection from small arms and hand grenades. It can move around in a hostile environment especially in buildings, small gullies and constrained spaces of hideouts providing an edge to thwart attacks. The DRDO has urged Indian Industries to submit proposals for Transfer of Technology (ToT). Industries interested for the technology will scale up production of the ATVs. A senior official of the Ministry of Defence (MoD) said the ATV has been trial evaluated by the users and is ready for production. "Though the ATV technology is now available for three versions - tracked, wheeled and low-noise electric, the proposals have been sought for the tracked vehicle and DRDO has five licenses to offer to industries," he informed. The armoured vehicle was conceptualised in the aftermath of the 26/11 Mumbai terrorist attack. After years of research, the Ahmednagar-based VRDE has developed the agile, compact with weight and dimensional profile and highly manoeuvrable armoured vehicle adequately protected for a hostile environment. The ATV has situational awareness provision and six firing ports. A top hatch in the vehicle helps security personnel to exit in an emergency. The vehicle can be employed in the corridors of hostile terrains where it is difficult to operate in a normal wheeled vehicle. "The armoured vehicle has a very low turning circle diameter, which enables it to turn around itself within a limited space. It has all-round ballistic and blast protection, better firing capability and is equipped with varied requirements to carry out the counter-insurgency operation in urban areas," the official added. The tracked version of ATV has already been tested ballistically and has also undergone a series of successful grenade trials. Compact vehicle • Can accommodate 3 combatants • 360 degrees revolving • Can move on tracked as well as on tyre • All round armour and bullet proof glass protection • Blast protection • Can climb step of 7" height

Source: The Indian Express

BUSINESS

MoS for Defence Visits HAL, Appreciates the Manufacturing Prowess

Mr Shripad Yesso Naik, Minister of State for Defence, paid a maiden visit to HAL facilities here today. He was received by Mr R Madhavan, CMD and senior officials of HAL at the Helicopter Complex. The officials accompanied him during his visit to LCA Tejas Division, Rotary Wing R&D Centre, LCH, IMRH and LUH hangars. The Minister was briefed on current developments, future proposals and projects of the Company. "We are proud to see the work done by HAL in manufacturing of helicopter and other fixed wing aircraft. We should make more efforts to be self-sufficient in the field", said Mr Naik.

Source: <https://hal-india.co.in/>

Thailand in talks with India to buy BrahMos cruise missiles

New Delhi: In possibly the first sale of BrahMos supersonic cruise missiles to another country, Thailand is in talks with India for their purchase, official sources said. A few other countries have also expressed interest in BrahMos but nothing has fructified yet. "Negotiations are on. It may not happen this year, but most likely next year," diplomatic sources said. While Thailand expressed interest in the missiles some time back, discussions picked pace after the visit of Royal Thai Navy Chief Admiral Ruddit to India in December last year. As part of the expanding defence cooperation between the two countries, Thailand has made a request for repair and refurbishing their Dornier maritime patrol aircraft. "A joint team of Indian Navy, Bharat Electronics Limited and Hindustan Aeronautics Limited visited Thailand in mid-June to discuss the issue," a defence source said. In addition, Thailand Navy is looking to increase its capabilities and planning to induct more ships, defence sources said. In line with that, Indian Navy is exploring opportunities

wherein India could help in ship design and has even “offered ship construction at the various defence public sector undertaking shipyards.” “The Indian Navy’s foreign cooperation initiatives include highlighting the capability of various Defence Public Sector Undertakings and Indian defence industry to friendly foreign navies,” the defence source stated. Discussions are on to integrate Thailand into India’s coastal surveillance radar chain network which sources is “likely to be finalised by year end.” Several littoral states including Maldives and Seychelles have already been integrated into it. Trilateral exercise - The inaugural India, Thailand and Singapore trilateral naval exercise announced by Prime Minister Narendra Modi during his address at Shangri-La dialogue in June 2018 is scheduled to be held later this year. Finalising the exercise got delayed and it got a push during the visit of Navy Chief Admiral Sunil Lanba to Thailand in April. “India will host the first edition of the exercise in September this year,” diplomatic sources said adding Singapore will host the second edition and Thailand the third. The Initial Planning Conference to discuss the modalities of the exercise was held in May and the Final Planning Conference to finalise the details is scheduled to be held in August, officials said. Malaysia has also evinced interest in joining the exercise. The two navies already conduct a Coordinated Patrol (CORPAT) and a new bilateral exercise is also in the works apart from the trilateral. As members of the Indian Ocean rim association (IORA) and Indian Ocean Naval symposium (IONS), navies of India and Thailand are working closely in the areas of disaster risk management, maritime security safety, information sharing and interoperability.

Source: The Hindu

83 LCAs Order: HAL may finally agree to lower price

Staring at a depleting order book, defence PUS Hindustan Aeronautics Limited (HAL) negotiating price for the 83 Light Combat Aircraft (LCA) Tejas aircraft order is likely to agree to a price that is significantly lower than its quotation. According to sources privy to the negotiations, HAL quoted Rs 450 crore per aircraft as the basic price. “MoD and IAF (customers) are firm that this price is not competitive and are negotiating for a price that is less than Rs 300 crore per aircraft. Negotiations are nearly complete and final price is likely to be in the range of Rs 250 crore and Rs 275 crore,” a source said. If the price is Rs 275 crore, then the value of 83 LCAs would be about Rs 22,825 crore compared to Rs 37,350 crore if it was Rs 450 crore. This value would be excluding maintenance and other aspects of the overall deal. It’s noteworthy that former defence minister Mrs Nirmala Sitharaman had pegged the total value of LCA order at Rs 50,000 crore in January. “HAL really has no choice. If we need to sustain our production lines and the employees, we need fresh orders, and this is one of the bigger orders which will go on for at least five years,” a source said. At present HAL has orders worth only Rs 45,000 crore, with a major concern brewing in its plant in Nasik, which has orders to sustain only until March 2020. According to MoD, HAL has orders for 48 fixed wing aircraft—only 12 of these for Nasik plant—67 helicopters, 80 engines and 26 sets of rocket structures placed by ISRO (See graphic). One source claimed: “The Gripen, which has features similar to LCA, was costing less than Rs 300 crore per plane and that HAL must become competitive and be able to offer similar price.” Gripen is manufactured by Swedish firm SAAB. Another source said that this would benefit HAL in the long run to increase efficiency to reduce costs. Eventually, the aim is to export LCAs and HAL has already expressed an interest in supplying them to Malaysia. If it wants to export, it needs to price aircraft in the same range as others. “Why would anybody pay Rs 450 crore for Tejas if they can buy Gripens for cheaper,” the source argued, adding: “Also, HAL quoted 2.5 lakh man hours to build one aircraft and the customers want it to be 1.5 lakh hours,” a source said.

Source: The Times of India

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