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SARANG TO PERFORM AT MAKS AIR SHOW IN RUSSIA 20 JULY 2021

Akash surface-to-air missile, man-portable anti-tank missile successfully tested

Newly Elected members in 221st Grading Committee meeting of AeSI

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DRDO successfully flight-tests indigenously developed MPATGM for minimum range

In a major boost towards AatmaNirbhar Bharat and strengthening of Indian Army, Defence Research and Development Organisation (DRDO) successfully flight-tested indigenously developed low weight, fire and forget Man Portable Antitank Guided Missile (MPATGM) on July 21, 2021. The missile was launched from a man portable launcher integrated with thermal site and the target was mimicking a tank. The missile hit the target in direct attack mode and destroyed it with precision. The test has validated the minimum range successfully. All the mission objectives were met. The missile has already been successfully flight tested for the maximum range. The missile is incorporated with state-of-the-art Miniaturized Infrared Imaging Seeker along with advanced avionics. The test brings the development of indigenous third generation man portable Anti-Tank Guided Missile close to completion. Raksha Mantri Shri Rajnath Singh has congratulated DRDO and the Industry for the successful test. Secretary Department of Defence R&D and Chairman DRDO Dr G Satheesh Reddy congratulated the team for the successful test.

Source: https://www.pib.gov.in/PressReleasePage.aspx?PRID=1737529

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CURRENT AFFAIRS

ISRO plans to launch geo imaging satellite on August 12

PTI, Bengaluru, JUL 10 2021, 17:32 ISTUPDATED: JUL 10 2021, 17:32 IST Indian Space Research Organisation's (ISRO) latest Geo Imaging Satellite-1, an earth observation satellite on-board GSLV-F10 is seen on a launch pad, in Sriharikota. It's going to be only the second launch of the Bengaluru-headquartered space agency in the Covid-19-hit 2021. ISRO successfully launched PSLV-C51 mission on February 28 with Brazil's earth observation satellite Amazonia-1 and 18 co-passengers, including some built by students, on board. The 2,268-kg GISAT-1 was originally slated to be launched from Sriharikota in Andhra Pradesh's Nellore district, about 100 kms north of Chennai, on March 5 last year but was postponed a day before the blast-off due to technical reasons. Thereafter the launch was delayed due to Covid-19- induced lockdown which affected normal work. It was scheduled for March 28 this year but a "minor issue" with the satellite forced its postponement. The launch was later expected in April and then in May but the campaign could not be taken up due to lockdown in parts of the country triggered by the second wave of the pandemic. "We have tentatively planned the GSLV-F10 launch on August 12, at 05.43 am, subject to weather conditions", an ISRO official told PTI. According to ISRO, GISAT-1 will facilitate near real-time observation of the Indian sub-continent, under cloud-free conditions, at frequent intervals. GISAT-1 will be placed in a Geosynchronous Transfer Orbit by GSLV-F10 and, subsequently, it will be positioned in the final geostationary orbit, about 36,000 km above earth's equator, using its on board propulsion system. The earth observation satellite will provide the country near real-time images of its borders and also enable quick monitoring of natural disasters. Experts said positioning the state-of-the-art agile earth observation satellite in geostationary orbit has key advantages. "It's going to be a game-changer in some sense for India," a Department of Space official said. Listing the objectives of the mission, ISRO had earlier said the satellite would provide near real-time imaging of the large area region of interest at frequent intervals. It would help in quick monitoring of natural disasters, episodic and any short-term events. The third objective is to obtain spectral signatures of agriculture, forestry, mineralogy, disaster warning, cloud properties, snow and glacier and oceanography.

Source: https://www.deccanherald.com

First uncrewed mission of Gaganyaan programme not possible in December: ISRO

The launch of the first uncrewed mission planned in December, as part of the human spaceflight programme 'Gaganyaan', will be delayed due to the COVID-19-induced disruption in delivery of hardware elements for the ambitious venture, ISRO confirmed. "Definitely it will not be possible in December. It's delayed", Chairman of ISRO (Indian Space Research Organisation), K Sivan, told P T I here. "It (uncrewed mission) will shift to next year". According to sources in the Bengaluru-headquartered space agency, under the Department of Space, delivery of hardware by the industry was hit due to the lockdown imposed in several States to contain the pandemic in recent months. As part of the mandate of Gaganyaan, two uncrewed flights are planned to test the end-to-end capacity for the manned mission. "Design, analysis and documentation are done by ISRO while hardware for Gaganyaan is fabricated and supplied by hundreds of industries across the country," the sources said. The objective of Gaganyaan is to carry a crew of three to Low Earth Orbit (LEO), perform a set of predefined activities in space, and return them safely to a predefined destination on earth. Union Minister of State (Independent Charge) of Space, Jitendra Singh said in February this year that the first unmanned mission is planned in December 2021 and the second unmanned one in 2022-23, followed by the human spaceflight demonstration. Four Indian astronaut-candidates (Test Pilots of Indian Air Force) have already undergone generic space flight training in Russia as part of the Gaganyaan programme. ISRO's heavy-lift launcher GSLV Mk III has been identified for the mission. Formal announcement of the Gaganyaan programme was made by Prime Minister Narendra Modi during his Independence Day address on August 15, 2018. The initial target was to launch the human spaceflight before the 75th anniversary of India's independence on August 15, 2022. Meanwhile, the four Indian astronaut-candidates are getting ready to kick-start the Indian leg of the mission- specific training that focuses on physical, mental, psychological and technological aspects. An expert team has defined the training curriculum. "Mostly, it will start next month", Sivan said. "The training will happen at different locations. Academic training, aircraft trials, Navy trials, survival trials, simulation trials... the training is repeated, updated till they fly." The crew management activities are being taken care of by Indian Air Force. ISRO has signed MoU with seven labs of Defence Research and Development Organisation (DRDO) for design and development of human centric products. It has signed a similar agreement with academic institutes for development of Microgravity payloads. The human-centric products include space food and potable water, crew health monitoring system, emergency survival kit, and crew medical kit. ISRO is also taking the

help of French, Russian and US space agencies in “some of the crucial activities and supply of components”, sources said. Sivan said engines are getting tested and being qualified as part of human rating of the launch vehicle.

Source: https://www.deccanherald.com

Akash-NG missile put to test again with RF seeker developed by DRDO lab in Hyderabad

The Radio Frequency Seeker developed at a laboratory of the Defence Research and Development Organisation (DRDO) in Hyderabad can successfully make the new generation surface-to-air missiles, Akash NG, lock onto any enemy aircraft till it is destroyed. The DRDO once again put the Akash-NG missiles on a flight-test from the Integrated Test Range in Chandipur off the coast of Odisha – this time with the indigenously developed RF Seeker fitted to it. The RF Seeker successfully helped the Akash-NG lock onto a high-speed unmanned aerial target and guided it continuously till the target was destroyed. The Akash-NG weapon system was developed for use by the Indian Air Force to intercept advanced fighter aircraft with high maneuvering capability and low Radar Cross-Section (RCS). It was first launched a day before the Republic Day this year. The DRDO successfully fight-tested the missile last, but without the seeker. It was again put to test, this time with the RF seeker indigenously developed by the Research Centre Imarat in Hyderabad. The RF seeker helps the Akash-NG lock onto the target and thus makes it difficult for enemy fighter jets to evade incoming missiles. The Ministry of Defence stated in New Delhi that the latest flight-test of the Akash-NG had validated the functioning of complete weapon system consisting of the missile with indigenously developed RF seeker, Launcher, Multi-Function Radar and Command, Control and Communication System. The test was carried out amidst inclement weather conditions proving the all-weather capability of the weapon system, a spokesperson of the MoD stated. The Akash-NG is the improved version of the old Akash surface-to-air missiles. The RF seeker is one of the two key improvements the new generation missile has over the old version, the other being replacing old ramjet with new two-pulse rocket motor. The system performance was validated through the data captured by a number of Radar, Telemetry and Electro Optical Tracking systems deployed by ITR, Chandipur. A team of Indian Air Force Officers witnessed the test.

Source: https://www.deccanherald.com

DRDO chief focuses on building indigenous defence system to reduce import dependence

DRDO chairman Dr G Satheesh Reddy stressed on the need to build an indigenous defence system in the country as almost 50 per cent of such technologies are currently imported from other countries. Reddy was addressing a programme through video conference on “Building Future Defence Capabilities - Strategic Strides” organised by IIM Shillong to mark the sixth death anniversary of former president APJ Abdul Kalam who died while delivering a lecture here. The DRDO chairman emphasised the ‘Make in India’ initiative which greatly depends on knowing the ‘Know-how’ and ‘Know-why’ of technology development for creating self-sustainability in the country. Dr Reddy was all praise for the significant contribution of Dr Kalam in the development of science and technology and also in enhancing the defence capabilities of the nation. He recalled Dr Kalam was described as the ‘Missile man of India’ under whose leadership five missiles - Agni, Aakash, Naag, Prithvi and Trishul – had been developed. On the sidelines of his speech, Dr Reddy mentioned the various initiatives and achievements of the country in the defence sector. He also stressed on increasing the export potential while reducing the import of such technologies to become a self-reliant country. Dr Reddy emphasised the ‘Quantum Communication between two DRDO laboratories’ which demonstrates safe and secure communications in times of need. He mentioned the ‘Development cum Production Partner’ (DCPP) programme provided by DRDO which allowed the private sector to co-develop missile systems and have the rights to manufacture as well. Under the new DRDO policy, transfer of technology and patents, including life science and missile technology, has been provided to entrepreneurs free of cost to boost the defence manufacturing process in the country. Handholding support is also provided to these enterprises, he said. Dr Reddy said that DRDO has also launched an M. Tech. Program in Defence Technology in collaboration with various educational institutes which aims to impart necessary theoretical and experimental knowledge, skill and aptitude in defence technology areas. These students are offered an opportunity of undergoing an internship under DRDO. He referred to the ‘VAIBHAV’ Summit that took place with the collaboration with IIM Shillong where global Indian researchers came together to resolve emergent challenges faced by the country. This programme aimed to create an ecosystem of knowledge and innovation in the country through global outreach. He also revealed that a new scheme that promotes more R&D via different academic institutes in the country is about to be launched very soon. In his opening speech, IIM Shillong director Prof DP Goyal said Kalam was a visiting faculty at the

institute. “It is an honour for IIM Shillong to have a centre named after Dr APJ Abdul Kalam that is specifically working for the development of the northeast region,” he said.

Source: https://www.deccanherald.com

AIR MARSHAL VIVEK RAM CHAUDHARI PVSM AVSM VM ASSUMES CHARGE AS VICE CHIEF OF THE AIR STAFF

Air Marshal Vivek Ram Chaudhari PVSM AVSM VM took over as the Vice Chief of the Air Staff on 01 Jul 21. The Air Marshal was commissioned in the Fighter stream of the IAF on 29 Dec 82. The Air Officer has a flying experience of more than 3800 hrs on a wide variety of fighter and trainer aircraft, including missions flown during Op-Meghdoot and Op-Safed Sagar. He is an alumnus of National Defence Academy and Defence Services Staff College, Wellington. During his illustrious career in the IAF, the Air Officer has commanded a frontline Fighter Sqn and a Fighter base. As an Air Vice Marshal, he has been Deputy Commandant, Air Force Academy, Assistant Chief of Air Staff Operations (Air Defence) and Assistant Chief of Air Staff (Personnel Officers). He has also held the coveted appointments of Deputy Chief of the Air Staff at Air HQ and Senior Air Staff Officer at Eastern Air Command. Prior to assuming the present appointment, he was the Air Officer Commanding-in-Chief of Western Air Command. He has succeeded Air Marshal HS Arora PVSM AVSM, who retired after more than 39 years of illustrious service on 30 Jun 21. During his tenure as VCAS, he was instrumental in ensuring prompt and optimum operational deployment of assets in proportionate response to the developing situation in Eastern Ladakh. Under his guidance, IAF also effectively contributed towards various HADR and COVID related tasks, both within India and abroad. On the occasion, the Air Marshals were presented the ceremonial Guard of Honour at Air Headquarters. They also took part in the wreath laying ceremony at the National War Memorial.

Source: https://indianairforce.nic.in/

SARANG TO PERFORM AT MAKS AIR SHOW IN RUSSIA 20 JULY 2021

The Sarang Helicopter Display Team of the IAF is all set to perform for the first time at the MAKS International Air Show held at Zhukovsky International Airport, Russia. The air show is a biennial fixture and this year’s edition is scheduled from 20 July 2021 to 25 July 2021. This is the first occasion when the Sarang Team is performing its four helicopter aerobatics display in Russia, with its ‘Made in India’ ‘Dhruv’ Advanced Light Helicopters (ALH). These HAL manufactured machines have hinge less rotors and are equipped with state-of-the-art avionics, which makes them extremely suitable for military aviation. Apart from the IAF, the Indian Army, the Indian Navy and the Indian Coast Guard also operate this helicopter. The Sarang Team was formed in 2003 at Bangalore and its first international display was at the Asian Aerospace Airshow at Singapore in 2004. Since then, Sarang has represented Indian aviation at air shows and ceremonial occasions in UAE, Germany, UK, Bahrain, Mauritius and Sri Lanka till date. Apart from aerobatics displays at national and international venues, the team has also taken active part in numerous Humanitarian Assistance and Disaster Relief Missions like Op Rahat in Uttarakhand (2013), Cyclone Ockhi in Kerala (2017) and Op Karuna flood relief in Kerala (2018).

Source: https://indianairforce.nic.in/

Richard Branson takes off first in space tourism race

Swashbuckling entrepreneur Richard Branson hurtled into space aboard his own winged rocket ship in his boldest adventure yet, beating out fellow billionaire Jeff Bezos. The nearly 71-year-old Mr. Branson and five crewmates, including aeronautical engineer Sirisha Bandla, from his Virgin Galactic space tourism company reached an altitude of about 88 kilometres over the New Mexico desert — enough to experience three to four minutes of weightlessness and see the curvature of the Earth — and then safely glided back home to a runway landing. “Seventeen years of hard work to get us this far,” a jubilant Mr. Branson said as he congratulated his team on the trip back. Mr. Branson became the first person to blast off in his own spaceship, beating Mr. Bezos by nine days. He also became only the second septuagenarian to depart for space. (John Glenn flew on the shuttle at age 77 in 1998.) Ms. Bandla became the third Indian-origin woman to fly into space after Kalpana Chawla and Sunita Williams. Wing Commander Rakesh Sharma is the only Indian citizen to travel in space. With about 500 people watching, including Mr. Branson’s wife, children and grandchildren, a twin-fuselage aircraft with his space plane attached underneath took off in the first stage of the flight. The space plane then detached from the mother ship at an altitude of about 13 kilometres) and fired its engine, reaching the edge of space. The entire flight up and back aboard the sleek white

ship, named Unity, took just under 15 minutes. The flamboyant, London-born founder of Virgin Atlantic Airways wasn't supposed to fly until later this summer. But he assigned himself to an earlier flight after Mr. Bezos announced plans to ride his own rocket into space from Texas on July 20, the 52nd anniversary of the Apollo 11 moon landing. Mr. Branson, who has kite-surfed the English Channel and attempted to circle the world in a hot-air balloon, denied he was trying to beat Mr. Bezos.

Space tourism race

Another one of Mr. Branson's chief rivals in the space-tourism race among the world's richest men, SpaceX's Elon Musk, arrived in New Mexico to witness the flight, wishing Mr. Branson via Twitter, "Godspeed!" Mr. Bezos likewise sent his wishes for a safe and successful flight, though he also took to Twitter to enumerate the ways in which be believes his company's rides will be better. Bezos' Blue Origin company intends to send tourists past the so-called Karman line 100 kilometres above earth, which is is recognised by international aviation and aerospace federations as the threshold of space. But NASA, the Air Force, the Federal Aviation Administration and some astrophysicists consider the boundary between the atmosphere and space to begin 80 kilometres up. The risks to Mr. Branson and his crew were underscored in 2007, when a rocket motor test in Mojave Desert left three workers dead, and in 2014, when a Virgin Galactic rocket plane broke apart during a test flight, killing one pilot and seriously injuring the other. Ever the showman, Mr. Branson insisted on a global livestream of the morning flight and invited celebrities and former space station astronauts to the company's Spaceport America base in New Mexico. R&B singer Khalid was on hand to perform his new single "New Normal" — a nod to the dawning of space tourism — while CBS "Late Show" host Stephen Colbert served as the event's master of ceremonies. Virgin Galactic already has more than 600 reservations from would-be space tourists, with tickets initially costing $250,000 apiece. Blue Origin is waiting for Bezos' flight before announcing its ticket prices. Musk's SpaceX, which is already launching astronauts to the International Space Station for NASA and is building moon and Mars ships, is also competing for space tourism dollars. But its capsules will do more than make brief, up-and-down forays; they will go into orbit around the Earth, with seats costing well into the millions. Its first private flight is set for September. Musk himself has not committed to going into space anytime soon. "It's a whole new horizon out there, new opportunities, new destinations," said former NASA astronaut Chris Ferguson, who commanded the last shuttle flight 10 years ago. He now works for Boeing, which is test-flying its own space capsule. "This is really sort of like the advent of commercial air travel, only 100 years later," Ferguson added. "There's a lot waiting in the wings."

Source: https://www.thehindu.com/

Gaganyaan: More than 2 uncrewed missions on cards

The Indian Space Research Organisation (ISRO), whose initial plan was to launch two uncrewed missions before the human spaceflight carries astronauts to (LEO) as part of the Gaganyaan programme, may carry out more uncrewed launches. The national-level Gaganyaan Advisory Council (GAC) will take a final call on how many uncrewed missions ISRO may need to carry out after it evaluates data from the first two missions. As reported by TOI last week, the first uncrewed mission is now unlikely before June 2022, and ISRO won't be sending the life support systems for tests. ISRO chairman told TOI: "...We may need to carry out more than two uncrewed missions. The GAC has advised that the first uncrewed mission should be carried out as soon as possible. Based on how the systems perform during the first and the second uncrewed missions and evaluation of the data, the GAC will decide if we need more missions before the astronauts are sent." 7-14 Orbits Only? Also, no final decision on how long the astronauts would eventually spend in LEO as part of the first mission has been taken yet. A source from the Gaganyaan team said that they might only do "seven orbits", or at best, "fourteen". Any satellite in LEO can do around 14 orbits in a day — which means the Indian astronauts may just spend one day in space. "The preparations (development of systems) are to keep astronauts in space for a week. However, we may be a bit more cautious on the first mission. That said, no decision has been taken yet on how long they will spend there," Sivan said. Arabian Sea, Bay of Bengal Both Options Further, ISRO is looking at both the west and east coast options for the landing of the orbital module upon its return. Sources said that plans are being drawn up for landing on both seas but the landing could eventually happen in the Bay of Bengal. "The Arabian sea is less rough compared to the Bay of Bengal, but the latter has better infrastructure for recovery of the module given that the landing would take place closer to . At this juncture, we're keeping both options open," Sivan said. 40 Ground Stations & 2 Satellites Also, ISRO will be using at least 40 ground stations — Indian and those belonging to other countries — to track astronauts when they travel around Earth aside from launching two relay satellites. "Generally we only need a handful of stations to track our satellites. But for the human mission the entire

orbit needs to be tracked, so we have already tied up with 40 stations around the world," Sivan said. He added that these stations would still cover only 40% of the module's orbit around Earth and the remaining 60% will be covered by the two relay satellites ISRO will launch. "The first of these satellites will be ready by March-April next year and the second one by the time we launch the second uncrewed mission," Sivan said.

Source: https://timesofindia.indiatimes.com/

Akash surface-to-air missile, man-portable anti-tank missile successfully tested

A new generation of Akash surface-to-air missile was successfully flight-tested by the DRDO from an integrated test range off the Odisha coast in a boost to air defence capabilities. The Defence Ministry said the missile was test-fired at around 12:45 p.m. from a land-based platform and that the "flawless performance" of its weapons system was confirmed by the complete flight data. "Once deployed, the Akash-NG weapon system will prove to be a force multiplier for the air defence capability of the IAF," the Ministry said. It is learnt that the new variant of the Akash missile (Akash-NG) has a slightly better range compared to the original version that can strike targets at a distance of around 25 km. Defence Minister Rajnath Singh congratulated the DRDO, the IAF and production agencies Bharat Electronics Limited (BEL) and Bharat Dynamics Limited (BDL) for the test-firing of the missile. Separately, the DRDO also successfully flight-tested an indigenously developed low weight man-portable anti-tank guided missile, paving the way for its production for the Army. The missile is being developed to strengthen the combat capabilities of the Army. The Ministry said the Aakash-NG missile was flight-tested at around 12:45 p.m. from a land-based platform. "The DRDO successfully flight-tested the new generation Akash Missile from the Integrated Test Range (ITR) off the coast of Odisha on July 21," it said. "The flight trial was conducted at around 12:45 p.m. from a land-based platform with all weapon system elements such as multifunction radar, command, control and communication system and launcher participating in the deployment configuration," it said. The Akash missile system has been developed by the DRDO's laboratory in Hyderabad in collaboration with other wings of the premier defence research organisation. To capture flight data, the ITR deployed a number of monitoring mechanisms such as electro-optical tracking systems, radar and telemetry. "The flawless performance of the entire weapon system has been confirmed by complete flight data captured by these systems. During the test, the missile demonstrated high manoeuvrability required for neutralising fast and agile aerial threats." DRDO Chairman G. Satheesh Reddy applauded the efforts of the team that was involved in the test-firing of the missile. In December last year, the government approved the export of the Akash missile system and set up a high-level committee to authorise sale of major platforms to various countries. A committee comprising Defence Minister Singh, External Affairs Minister S. Jaishankar and National Security Advisor Ajit Doval was set up to authorise exports of major indigenous platforms. About the man-portable missile, the Defence Ministry described the successful trial as a major boost for the government's "Aatmanirbhar Bharat" (self-reliant India) campaign. "In a major boost towards 'Aatmamirbhar Bharat' and strengthening of Army, the DRDO successfully flight-tested indigenously developed low weight, fire and forget Man-Portable Antitank Guided Missile [MPATGM] on July 21," the Ministry said. It said the missile was launched from a man-portable launcher integrated with a thermal site and the target was mimicking a tank. "The missile hit the target in direct attack mode and destroyed it with precision. The test has validated the minimum range successfully. All the mission objectives were met." It said the missile has already been successfully flight-tested for the maximum range. "The test brings the development of indigenous third-generation man-portable anti-tank guided missile close to completion."

Source: https://www.thehindu.com/

Chandrayaan-3 is likely to be launched during third quarter of 2022-Dr Jitendra Singh

Union Minister of State (Independent Charge) Science & Technology; Minister of State (Independent Charge) Earth Sciences; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh said that Chandrayaan-3 is likely to be launched during third quarter of 2022 assuming normal work flow henceforth. In a written reply to a question in the Lok sabha today, he said, realization of Chandrayaan-3 is in progress. The realization of Chandrayaan-3 involves various process including finalization of configuration, subsystems realization, integration, spacecraft level detailed testing and a number of special tests to evaluate the system performance on earth. The realization progress was hampered due to COVID-19 pandemic. However, all works that were possible in work from home mode were taken up even during lockdown periods. Chandrayaan-3 realization resumed after commencement of unlock period and is in matured stage of realization.

Source: https://www.pib.gov.in/PressReleasePage.aspx?PRID=1739777

Indian Navy accepts first batch of two MH-60r Multi Role Helicopters (MRH)

Indian Navy accepted the first two of its MH-60R Multi Role Helicopters (MRH) from US Navy in a ceremony held at Naval Air Station North Island, San Diego on 16 Jul 21. The ceremony marked the formal transfer of these helicopters from US Navy to Indian Navy, which were accepted by His Excellency Taranjit Singh Sandhu, Indian Ambassador to USA. The ceremony also witnessed exchange of helicopter documents between Vice Adm Kenneth Whitesell, Commander Naval Air Forces, US Navy and Vice Adm Ravneet Singh, Deputy Chief of Naval Staff (DCNS), Indian Navy. MH-60R helicopters manufactured by Lockheed Martin Corporation, USA is an all-weather helicopter designed to support multiple missions with state of the art avionics/ sensors. 24 of these helicopters are being procured under Foreign Military Sales from the US Government. The helicopters would also be modified with several India Unique Equipment and weapons. The induction of these MRH would further enhance Indian Navy's three dimensional capabilities. In order to exploit these potent helicopters, the first batch of Indian crew is presently undergoing training in USA.

Source: https://www.pib.gov.in/PressReleasePage.aspx?PRID=1736365

Eight new routes launched to boost regional aerial connectivity

Shri JyotiradityaScindia, Union Minister of Civil Aviation along with Shri Shivraj Singh Chauhan, Chief Minister, Madhya Pradesh and Shri Narendra Singh Tomar, Union Minister of Agriculture & Farmers Welfare today virtually flagged off 8 new routes bolstering the aerial connectivity from Madhya Pradesh to Maharashtra & Gujarat. Shri Rakesh Singh, Member of Parliament, Jabalpur, Shri Pradeep Singh Kharola, Secretary, Ministry of Civil Aviation along with other senior officials of the ministry were also present during the flag off. Shri Pradhuman Singh Tomar, Minister of Energy, Govt. of Madhya Pradesh; Shri TulsiSilawat, Minister of Water Resources, Govt. of Madhya Pradesh;Dr.Kirit Solanki, Member of Parliament, Ahmedabad; and Shri Vivek Narayan Shejwalkar, Member of Parliament, Gwalior also joined the flag-off event virtually. Shri JyotiradityaScindia, Union Minister of Civil Aviation, said "I would like to congratulate the people of Madhya Pradesh, Maharashtra and Gujarat on the commencement of the new flight operations. Besides, additional flights between the Delhi-Jabalpur route will also commence from July 18 onwards, and Khajuraho-Delhi-Khajuraho flights from October 2021 onwards. We are committed to bolster regional air connectivity and take the Prime Minister's vision of Ude Desh ka Aam Naagrik (UDAN) to greater heights!" The airlines M/S SpiceJet will commence operations on these 8 new routes: Gwalior-Mumbai-Gwalior, Gwalior-Pune-Gwalior, Jabalpur-Surat-Jabalpur, and Ahmedabad-Gwalior-Ahmedabad route. Gwalior is one of the first airports of Madhya Pradesh to be connected with the UDAN route and further enhancements in the air traffic led to the advent of additional regional routes. Gwalior is now well connected with Bengaluru, Hyderabad, Kolkata, & Jammu as UDAN routes and Mumbai, Pune, & Ahmedabad as non-UDAN routes. The city is famous for its historical buildings like- Gwalior Fort, SaasBahu Temple, Tomb of Mohammad Ghaus, PhoolBagh, Gujari Mahal Museum, TeliKaMandir, Gwalior Zoo, Moti Mahal & Jai Vilas Palace. The new routes will boost the aerial connectivity of Gwalior, the tourism city of Madhya Pradesh with the trade hubs of India, Maharashtra & Gujarat, and further improve economic activity. The commencement of these routes fulfils the objectives of the Ministry of Civil Aviation to enhance the regional connectivity of the Tier-2 & Tier-3 cities with the metro cities of the country. With the flag-off, Jabalpur airport (Madhya Pradesh) is now connected with Bangalore, Hyderabad, & Pune as non-UDAN routes & with Bilaspur as UDAN route. Jabalpur is the administrative and educational centre of Madhya Pradesh. Home to Dhuandhar Falls, Madan Mahal Fort, Balancing Rock, Bargi Dam, GurudwaraGwarighat Sahib, and Dumna Nature Reserve Park, the city is also a major tourist hub. Inauguration of these routes achieves the aim of the Sab Uden Sab Juden initiative under the UDAN scheme to strengthen the established aerial network of the country while providing a catalyst to the local economy & tourism. Earlier this month, under the UDAN scheme, M/S Indigo airlines started another flight to connect Kolkata, West Bengal &Imphal, Manipur with Dibrugarh, Assam. To date, 359 routes and 59 airports including 5 heliports and 2 Water Aerodromes have been operationalized under the UDAN scheme. The number of domestic passengers is on the rise as flying emerges as a preferred, safe & time-saving mode of transport. On 15 July 2021, 1,56,450 passengers travelled on 1,450 flights. Total flight movement was 2,915 & total passenger movement was 3,12,892.

Source: https://www.pib.gov.in/PressReleasePage.aspx?PRID=1736211

DRDO & AICTE launch regular M. Tech. Program in defence technology

A regular M.Tech. Program in Defence Technology has been launched by Defence Research and Development Organisation (DRDO) and All India Council for Technical Education (AICTE) to impart necessary theoretical & experimental knowledge, skill and aptitude in various defence technology areas. Secretary Department of Defence R&D & Chairman

DRDODr G Satheesh Reddy and Chairman AICTE Prof Anil D Sahasrabudhelaunched the program during a virtual event organised by AICTE, New Delhi on July 08, 2021. The program will motivate the aspiring engineers to start their career in defence technology. This M.Tech. defence technology program can be conducted at any AICTE affiliated Institutes/Universities, IITs, NITs or private engineering institutes.Institute of Defence Scientists & Technologists (IDST) will provide support to the institutes for conducting this program, which can be conducted in online as well as offline formats. The program has six specialized streams - Combat Technology, Aero Technology, Naval Technology, Communication Systems & Sensors, Directed Energy Technology and High Energy Materials Technology. The students will also be provided opportunities to conduct their main thesis work in DRDO laboratories, Defence PSUs & Industries. The program will be helpful to students seeking opportunities in ever expanding defence research and manufacturing sector. Raksha Mantri Shri Rajnath Singh has congratulated DRDO, AICTE & Industries for starting a Post Graduate Program in Defence Technology. He said the program will help in achieving 'AatmaNirbhar Bharat'envisionedby Prime Minister Shri Narendra Modi. In his address, Dr G Satheesh Reddy congratulated DRDO, AICTE and industries for evolving the PG program. He expressed hope that such a specialised program will enable the creation of a large pool of talented workforce for defence sector. He called upon the industry leaders to extend their support for this program and offer opportunities to the students. Prof Anil D Sahasrabudhe expressed happiness over the launch of the program and said it will not only generate skilled manpower pool in defence technology, but will also create spin-off benefits in terms of new defence startups and entrepreneurs. He emphasized that research should be connected with day-to-day life as it is fundamental for human psyche. Chairman & Managing Director, Bharat Forge Limited Shri Babasaheb Neelkanth Kalyani congratulated DRDO and AICTE for initiating this program and highlighted its importance for creation of talent pool for defence technology with know-how and know-why capability to fulfil the vision of 'AatmaNirbhar Bharat'.

Source: https://www.pib.gov.in/PressReleasePage.aspx?PRID=1733818

ISRO plans to launch geo imaging satellite on August 12

The Indian Space Research Organisation (ISRO) is getting back into launch activity fully at Sriharikota spaceport with the planned orbiting of geo imaging satellite GISAT-1 on board GSLV-F10 rocket on August 12. It's going to be only the second launch of the Bengaluru-headquartered space agency in the COVID-19-hit 2021. ISRO successfully launched PSLV-C51 mission on February 28 with Brazil's earth observation satellite Amazonia-1 and 18 co-passengers, including some built by students, on board. The 2,268-kg GISAT-1 was originally slated to be launched from Sriharikota in Andhra Pradesh's Nellore district, about 100 kms north of Chennai, on March 5 last year but was postponed a day before the blast-off due to technical reasons. Thereafter the launch was delayed due to COVID-19- induced lockdown which affected normal work. It was scheduled for March 28 this year but a "minor issue" with the satellite forced its postponement. The launch was later expected in April and then in May but the campaign could not be taken up due to lockdown in parts of the country triggered by the second wave of the pandemic. "We have tentatively planned the GSLV-F10 launch on August 12, at 05.43 am, subject to weather conditions", an ISRO official told PTI. According to ISRO, GISAT-1 will facilitate near real- time observation of the Indian subcontinent, under cloud-free conditions, at frequent intervals. GISAT-1 will be placed in a Geosynchronous Transfer Orbit by GSLV-F10 and, subsequently, it will be positioned in the final geostationary orbit, about 36,000 km above earth's equator, using its on board propulsion system. The earth observation satellite will provide the country near real-time images of its borders and also enable quick monitoring of natural disasters. Experts said positioning the state-of-the-art agile earth observation satellite in geostationary orbit has key advantages. "It's going to be a game-changer in some sense for India," a Department of Space official said. "With onboard high resolution cameras, the satellite will allow the country to monitor the Indian land mass and the oceans, particularly its borders, continuously," the official said. Listing the objectives of the mission, ISRO had earlier said the satellite would provide near realtime imaging of the large area region of interest at frequent intervals. It would help in quick monitoring of natural disasters, episodic and any short-term events. The third objective is to obtain spectral signatures of agriculture, forestry, mineralogy, disaster warning, cloud properties, snow and glacier and oceanography.

Source: https://www.thehindu.com/

HAL plans medium lift chopper

Hindustan Aeronautics Ltd. (HAL), which is planning to indigenously design and develop a medium lift helicopter, the Indian multirole helicopter (IMRH), is hopeful of finalising the detailed project report in the next few months and approach the Cabinet Committee on Security (CCS) by year-end for project sanction. "All the three services are on

board the project. The Navy has already given their requirements, and we are discussing them right now. It will be a second platform with two different versions. The Army and the Air Force have promised to give the Preliminary Services Qualitative Requirements (PSQR) within two months. After that, it will take another two months to make a detailed project report (DPR)," HAL Chairman and Managing Director R. Madhavan said. Once the DPR is ready, the HAL will approach the CCS for project sanction after which funds will be released. The project is estimated at around ₹ 10,000 crore, including for the two different versions for the Navy, and will take seven years for design and development. At a meeting two weeks ago with the Secretary, Defence Production, these issues were discussed with the three services and the Navy put across its requirements. The Army and the Air Force were earlier expected to share the PSQRs by June which got delayed due to the second wave of the pandemic and have now sought two more months.

Time for funds

A HAL official said that hoping to secure the CCS sanction for the project in 2022, HAL in the meantime has put in its money for preliminary works. But major funding has to now come in because prototypes have to be made, detailed designs are to be done, which takes lot of money, and needs CCS sanction, the official stated. The HAL currently has a range of indigenous products in the light helicopter category — Advanced Light Helicopter, Light Combat Helicopter and Light Utility Helicopter. The IMRH is envisaged as a medium lift helicopter with a maximum all-up weight of 13 tonnes to replace the Russian Mi-17 class of helicopters in service. Preliminary design of the IMRH has already been carried out and it will be powered by twin engines, suit the high altitude requirements of the Army and Air Force as well feature blade folding option for ship deck operations, HAL officials said. Speaking at Aero India in February, a Chief Designer of the HAL said that the IMRH was intended to address India's requirement to replace the Mi-17 helicopters due for replacement progressively from 2028. Once the design phase is complete, the development process will see the manufacture of at least three prototypes, one structural test specimen and one ground test vehicle which will be put through ground and flight testing, followed by certification before it is cleared for series production. The HAL also intends to target the global helicopter market by benchmarking the proposed IMRH against helicopters such as Russian Mi-17, Sikorsky S-92, AgustaWestland AW-101, NHIndustries NH-90 and Eurocopter EC-725. The intended roles of the IMRH are to support air assault, air transport, combat logistics, combat search and rescue and casualty evacuation as well as VVIP duties.

Source: https://www.thehindu.com/

TECHNOLOGY

Garmin launches NavIC enabled Standalone Handheld Devices

Garmin, a renowned manufacturer of navigation products, has recently launched NavIC enabled handheld devices GPSMAP 66sr and GPSMAP 65s in India. NavIC enhances the accuracy and availability of signals in the hilly terrain as well as urban canyon. The NavIC enabled handheld devices can harness this benefit. ISRO acknowledged Garmin's initiative to incorporate NavIC in these handheld devices. ISRO also urged Garmin to make NavIC an integral part of all their upcoming satellite navigation based devices launched in India.

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

DRDO develops high-strength beta Titanium alloy for aerospace applications

The Defence Research and Development Organisation has indigenously developed a high-strength beta titanium alloy for manufacturing intricate components for aerospace applications, the defence ministry said. "Some of the components which may be forged from this alloy include slat/flap tracks, landing gear and drop link in landing gear – among several others," the ministry said in a statement. The excellent forgeability and high strength-to-weight ratio of the beta titanium alloy facilitates manufacture of intricately configured components for aerospace applications with potential for significant weight savings, it noted. Their relatively lower lifetime cost, owing to superior corrosion resistance in comparison to steels, is an effective trade-off to justify the use of this expensive material in India too, the ministry said. The beta titanium alloy, which contains vanadium, iron and aluminium along with titanium, is used by many developed nations as a substitute for the "relatively heavier traditional Ni-Cr-Mo structural steels to achieve weight savings", it said. The ministry's Aeronautical Development Agency (ADA) has identified over 15 steel components which may be replaced by

the beta titanium alloy forgings in the near future with a potential of 40 per cent weight savings, the ministry stated. Defence Minister Rajnath Singh congratulated the DRDO and the industry for indigenous development of the beta titanium alloy.

Source: https://www.deccanherald.com

India tests new surface-to-air, anti-tank missiles for Army, Air Force amid stand-off with China

The Defence Research and Development Organisation (DRDO) successfully flight-tested the Akash-NG, the new generation surface-to-air missile, which would give a boost to air defence capability of the Indian Air Force. The DRDO also successfully flight-tested indigenously developed "low weight, fire and forget" Man Portable Anti-Tank Guided Missile (MPATGM). The missile, which was developed for use by the Indian Army was launched from a man portable launcher integrated with thermal sight and the target was mimicking a tank. The missile hit the target in direct attack mode and destroyed it with precision. The test has validated the minimum range successfully an all the mission objectives were met. The missile has already been successfully flight tested for the maximum range, according to a press-release issued by the Ministry of Defence (MoD). The two weapon systems developed for the Indian Army and the Indian Air Force were tested as a display of India's military might even as its soldiers continued to be engaged in an eyeball-to-eyeball stand-off with the Chinese People's Liberation Army along the disputed boundary between the two neighbouring nations in eastern Ladakh. The Akash-NG missiles were flight-tested from the Integrated Test Range (ITR) off the coast of Odisha. The flight trial was conducted from a land-based platform with all weapon system elements such as multifunction radar, command, control and communication system and launcher participating in deployment configuration. In order to capture flight data, the ITR deployed a number of range stations like, Electro-Optical Tracking System, Radar and Telemetry. The flawless performance of the entire weapon system has been confirmed by complete flight data captured by these systems. "During the test, the missile demonstrated high manoeuvrability required for neutralising fast and agile aerial threats," the MoD stated in New Delhi. The missile system was developed by the Defence Research and Development Laboratory (DRDL) in Hyderabad in collaboration with other DRDO laboratories. The Akash-NG weapon system was developed for use by the Indian Air Force to intercept high maneuvering low Radar Cross-Section (RCS) aerial threats. It was first launched a day before the Republic Day this year. Once deployed, the Akash-NG missiles will prove to be a force multiplier for the air defence capability of the IAF, the MoD stated. The officials of the production agencies of the Bharat Electronics Limited (BEL) of Bengaluru and Bharat Dynamics Limited (BDL) of Hyderabad also participated in the trials. Defence Minister Rajnath Singh congratulated the DRDO for the successful tests of both the Akash-NG surface to air missile as well as the MPATGM.

Source: https://www.deccanherald.com

Space technology applications being used for digital education in the country

Government today said that space technology applications being used for digital education in the country. Satellite communication is being used for beaming the educational contents in digital mode by 19 States and A&N Islands under Tele-education Programme. Further, the Bhaskaracharya National Institute for Space Applications and Geo-informatics (BISAG-N) is also beaming 51 educational channels using satellite communication. Apart from this, Indian Institute of Remote Sensing is actively involved in training beneficiaries (such as UG/PG and Doctorate students, working professionals, academicians, school teachers and school students) on Space Technology and its Applications using digital platforms. During the last one year, about 2.42 lakh participants benefitted from these programmes. The Space Sector is opened up for larger participation of non-governmental entities which is expected to bring in wide opportunities to provide space based applications including digital education. This was stated by Union Minister of State (Independent Charge) Science & Technology; Minister of State (Independent Charge) Earth Sciences; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh today in a written reply to a question in the Rajya Sabha.

Source: https://www.pib.gov.in/PressReleasePage.aspx?PRID=1737737

First MRSAM missile out for delivery to IAF

The first missile of the first firing unit of MRSAM (Medium Range Surface to Air Missile), for delivery to Indian Air Force, was flagged off by MSR Prasad, director general (Missiles & Strategic Systems) at BDL, Kanchanbagh Unit Hyderabad.

BHVS Narayana MurthyDirector, Research Centre Imarat (RCI), Commodore Siddharth Mishra, (Retd), CMD, BDL, senior officials from DRDO and BDL were present on the occasion. MSR Prasad, distinguished scientist and director general (Missiles and Strategic Systems), a government nominee director on BDL Board is retiring on attaining superannuation this month was felicitated by BDL in recognition of his contribution to the company's progress during his tenure. Speaking on the occasion, CMD, BDL expressed his gratitude to the services extended by DG (M&SS) as BDL board director and guided the company achieving its planned objectives. Commodore Siddharth Mishra (Retd), CMD, BDL stated that MRSAM is one of the best examples of joint development of a weapon system. BDL has already completed the Navy order and now both Army and Air Force programme are moving simultaneously, he said. MRSAMis a high response, quick reaction, vertically launched supersonic missile, designed to neutralise enemy aerial threats – missiles, aircraft, guided bombs, helicopters. Used by Army, Navy and Air Force as different variants, the missile has a range up to 70 km. The missile system can provide point and area defence against various aerial targets including fighter aircraft, subsonic and supersonic cruise missiles. The missile is powered by indigenously developed dual-pulse rocket motor and dual control system to impart required manoeuvrability at the terminal phase. This state-of-art weapon system is designed with active radio frequency seeker to identify, track, engage and destroy the target with high kill probability. DL is a manufacturer and supplier of guided missiles, underwater weapons, air-borne products and allied defence equipment for the Indian Armed Forces. As a part of its philosophy of providing product life cycle support, BDL has been supporting the Armed Forces with refurbishment / life extension of vintage missiles and obsolescence management.

Source: https://timesofindia.indiatimes.com/

BUSINESS

ISRO merchandiser programme takes off with 8 companies already onboard

The Indian Space Research Organisation's customised space-themed merchandise programme in partnership with industry has taken off with multiple companies on board. Now, one will be able to purchase authorised products connected to ISROs missions and work, such as scale models, T-shirts, mugs, space-themed educational games, science toys, and more. ISRO believes this brand promotion exercise can play a "game-changing" role in creating awareness and kindling interest of students, children and public, in the domain of space science & technology, and propagating its achievements. "Eight companies have so far registered with ISRO on a non-exclusive basis with a registration fee regarding customised ISRO-theme based articles / models", an official of the Bengaluru headquartered space agency, under the Department of Space (DoS),... They include Indic Inspirations (Pune), 1947IND (Bengaluru), and Ankur Hobby Centre (Ahmedabad), sources said. "We will soon be launching a whole collection of ISRO themed Merchandise that will appeal to all Indians and Science & Space enthusiasts alike," said Founder and CEO of Indic Inspirations, Sunil Jalihal, recently. As part of the MoUs, ISRO shares the themes, general arrangement drawings, images or any other design for enabling these companies to use them appropriately "without causing any damage to the pride of the department". Specific samples of catalogued ISRO identifiers, which will be updated from time to time, would be made available to registered companies which have shared their product details with the space agency. According to the terms and conditions, the party (registered companies) shall avoid using the ISRO identifier, imagery, etc. on products such as doormats, slippers, or any such items, which affect the reputation/ image of the organisation. "Wherever 3D models and 2D drawings are being used to make scaled models, LEGO sets, jigsaw puzzle, etc., extra care shall be taken to ensure accuracy and ISRO intellect," they read. "The rates for the merchandise shall be reasonable in line with market conditions, as there is no brand value charged by ISRO to the party," as per the MoUs. "ISRO never takes any responsibility for the sale or after sale of the items, for the delivery, quality or damages due to sale". The initiative came from ISRO after many companies interested in creating customised articles and handicrafts approached it for themes.

Source: https://www.deccanherald.com

HAL set to deliver first batch of 3 Light Combat Helicopters to IAF

Hindustan Aeronautics Limited (HAL) is gearing up to deliver the first batch of three Light Combat Helicopters (LCH) to the Indian Air Force (IAF) once acceptance tests are completed. These are part of the 15 Limited Series Production (LSP) helicopters approved for the Army and the IAF. "HAL has received Letter of Intent for five Air force and five Army LCH for delivery pending contract finalisation of 15 Limited Series Production (LSP) LCH. HAL has

produced and signalled out three LSP LCH for the IAF. Same will be subjected to customer acceptance and training shortly," a HAL source said. On the remaining helicopters of the LSP series, the source added, "In the current year we are producing four LCH for Army and two for the Air Force. Remaining six LCH will be produced next year."

Delayed deal

The deal for the 15 LCH was expected to have been signed in the first quarter of 2021 but has been delayed due to the second wave of the pandemic. The IAF has put forward a requirement for 65 LCH and the Army for 114 helicopters. Of the 15 LSP helicopters, 10 are for the IAF and five for the Army. The LCH, the lightest attack helicopter in the world weighing 5.5 tonnes, has been designed and developed by the HAL to meet the specific and unique requirements of the Indian armed forces and can operate at heights of 12,000 feet. The Army Aviation operates smaller utility helicopters but does not have attack helicopters in its fleet and has for sometime pitched for attack helicopters of its own to operate with its strike Corps. The attack helicopter fleet is operated by the Air Force which provides close air support to the Army. The IAF operates the older Mi-25 and Mi-35 Russian attack helicopters which are in the process of being phased out and has inducted 22 AH-64E Apache attack helicopters from the U.S. The Army will also start receiving the Apache attack helicopters from early 2023 onwards, six of which have been contracted under an estimated $800 mn deal from the U.S. in February 2020. Presently, the Army has 90 Advanced Light Helicopters (ALH) and 75 Rudra, weaponised ALH, helicopters in service which are indigenously designed and developed by the HAL in addition to around 160 older Cheetah and Chetak utility helicopters which are in need of urgent replacement. Last August, amid the ongoing standoff with China in Eastern Ladakh, two LCH were deployed for operations at high altitude in Leh at short notice to support IAF missions, validating their capability.

Source: https://www.thehindu.com/

Government receives 27 proposals from private entities for undertaking various space activities in India

Union Minister of State (Independent Charge) Science & Technology; Minister of State (Independent Charge) Earth Sciences; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh today said that 27 proposals from private entities were received so far for undertaking various space activities in India. In a written reply to a question in the Rajya Sabha, he said, the types of proposals include building and launching of Launch vehicles, building, owning and operating Satellites, providing Satellites based services, establishing Ground segments, Research Partnerships and providing Mission services. The global space economy is poised to grow over a trillion USD in the next two decades. With the space sector reforms, Indian Private Space Industry is slated to contribute to the core elements of global space economy % space-based services, launch services, manufacturing of launch vehicles and satellites, establishment of ground segment and launch infrastructure % to a considerable extent. Participation of private sector including academic institutions, start-ups and industries in end-to-end space activities is expected to expand the national space economy, generate more employment opportunities and create better manufacturing facilities.

Source: https://www.pib.gov.in/PressReleasePage.aspx?PRID=1737739

First aircraft purchase agreement signed between GIFT city-based Vman Aviation & Airbus Helicopters under the Atmanirbhar Bharat Abhiyan

Today marked another significant day in the history of Indian aviation industry with the signing of first aircraft purchase order by a GIFT city (Gujarat International Finance Tec) based leasing company under the Atmanirbhar Bharat Abhiyan of the Government of India. Shri Pradeep Singh Kharola, Secretary, Ministry of Civil Aviation (MOCA) presided over the signing of the purchase agreement between Vman Aviation, GIFT City, Gandhinagar and Airbus Helicopters SAS (Marignane, France) in an event held today at the Rajiv Gandhi Bhawan, New Delhi. Shri VishokMansingh, CEO, Vman and Mr. Remi Maillard, President, Airbus India and Managing Director, South Asia region signed the agreement. Shri Sanjeev Kumar, Chairman AAI and Shri Amber Dubey, Joint Secretary, MoCA along with other senior officials were present during the signing agreement. Congratulating both the companies, Shri Pradeep Singh Kharola, Secretary, MoCA said, "The aircraft purchase signing is a landmark event in the Indian aviation history. This agreement is the result of the efforts put in for the last 4-5 years to create a viable leasing & financing ecosystem in the country. This is a new business segment coming to India and the Government of India shall continue to provide all possible help to promote leasing activities in India under the Atmanirbhar Bharat Abhiyan." Under the Atman NirbharAbhiyan, GIFT

IFSC, with various incentives from the government of India and low set up costs, has become very attractive for lessors. They can leverage the fast growing civil and military aviation market in India and abroad.

Source: https://www.pib.gov.in/PressReleasePage.aspx?PRID=1733463

HAL ready to export LCA-Tejas, Mark-2 getting ready

Hyderabad: Light Combat Aircraft-Tejas, the indigenous fighter plane being made by Hindustan Aeronautics Limited (HAL) for the Indian Air Force (IAF), has got foreign countries interested and the public sector unit is confident of getting one such contract soon, said Chairman and Managing Director R. Madhavan. LCA-Tejas Mark 2, the second generation fighter prototypes are underway in association with the DRDO's Aeronautical Development Agency (ADA). "We expect the first prototype to be ready by next year-end. It will be lengthier and is under design stage with structural and systems plans in place. It will take one year for the ground runs and the then flight trails will start to be completed by 2026-27," he said. Interacting with the media after taking charge of the first central fuselage for LCA-Tejas Mark 1, the CMD said HAL was simultaneously working on twin-engine version for the Indian Navy and the Advanced Medium Combat Aircraft (AMCA). Altogether, the production plan is 100 other Mark 2 version fighter planes and 120 fighter jets of other versions. Involving the private partners will bring cost advantage in the future and the technologies being developed is being made available for civilian sector too. "We are also looking at enhancing our production number of different helicopters because the demand for civilian use, especially by the States, as these have proved to be extremely useful during natural calamities like floods for rescue and relief operations. They can also be used for transporting patients needing immediate medicare," he explained. Helicopters like the Light Utility (LUH) and Light Combat (LCH) are being made for the Army and the Air Force while the Indian Multi Role Helicopter (IMRH) of 10-12 tonnes with a capacity to carry 24 passengers is in the design stage, said Mr. Madhavan. HAL is in a pretty comfortable position financially with dues of up to ₹ 34,400 crore collected from the government and the other customers. "Pending payments is an issue in the past. We are now clocking 6% growth rate and double digit profit rate. We are also aiming to have ₹ 1 lakh crore purchase order basket," he added.

Source: https://www.thehindu.com/

Newly elected members in 221st Grading Committee Meeting of AeSI

Sl. No.	Name	Designation	Grade	Member No.	Branch
1	Dr. Sanjay Kumar Pandey	Scientist E (Addl. Director)	Member	M-20687	Delhi
2	Dr. Reena Sharma	Scientist G	--do--	M-20688	Bangalore
3	Mr. Rohit Punase	Senior Manager	--do--	M-20689	Nasik
4	Mr. Rohiit Pratap Singh Chauhan	Commander Check Pilot	--do--	M-20690	Delhi
5	Mr. Arvind Mohan	Dy. Director of Airworthiness(Retd.)	--do--	M-20691	Delhi
6	Mr. Shiven Kaushal	Sr. Technical Officer	--do--	M-20692	Mumbai
7	Mr. Akhil Arya	CAE & Tech Instructor	--do--	M-20693	Mumbai
8	Mr. Ajitkumar Singh	DGM	--do--	M-20694	Mumbai
9	Mr. Anirudha Patil	Chief Aircraft Engineer	--do--	M-20695	Mumbai
10	Air Cmde Vikram Rajasekhar	Air Commodore	--do--	M-20696	Chandigarh
11	Mr. Anil Kumar Thekil	Pradhan Sahayak Engineer	--do--	M-20697	Bangalore
12	Dr. Sunil Vishnu Dingare	Professor & head	--do--	M-20698	Pune
13	Mr. Suresh Kumar Singh	Secretary(Admn.)	--do--	M-20699	Delhi
14	Mr. Krishna Balu Jadhav	Assistant Professor	--do--	M-20700	Pune
15	Capt Sandeep Saraf	Director	--do--	M-20701	Delhi
16	Mr. Anand Misra	President/CEO	--do--	M-20702	Delhi
17	Mr. Sachindra Bhaskar Jayawant	DGM	--do--	M-20703	Mumbai
18	Mr. Naveen Malhotra	Sr.Software Specialist	--do--	M-20704	Delhi
19	Mr. Guddu Kumar	AeSI Graduate	Graduate	G-13505	Delhi
20	Ms. Shaista Aftab	AeSI Graduate	--do--	G-13506	Chennai