E-NEWS

Every Month From The Aeronautical Society of India

VOLUME - 13 | SEPTEMBER - 2018 | RELEASE - 09

CURRENT AFFAIRS

In a first, LCA naval variant lands on warship deck

NAL gets cracking on smaller, smarter drones

TECHNOLOGY

Saras small passenger aircraft will be in commercial use in 3 years: Harsh Vardhan

The ambitious Saras project to manufacture small passenger aircraft, which was in cold storage, has been revived and in the next three years its commercial use will start under the UDAN scheme, Union minister Mr Harsh Vardhan said today. Commercial modification and implementation process were underway, he told reporters after inaugurating the UAV design and integration facility at the National Aeronautics Limited here, he said. "The project was stopped after a tragedy but now it has been revived and test flights are in progress.." he said. "In the next three years, the 19-seater aircraft will be utilised for commercial purpose," Mr Vardhan said. The vehicle would be useful for Prime Minister Mr Narendra Modi's project UDAN for revival of many defunct aerodromes including those commissioned by the British during colonial era, he said. On March 6, 2009, the indigenous light transport aircraft's Prototype 2 crashed at Bidadi on the city outskirts killing two wing commanders and a squadron leader. "Saras and the revival of aerodromes will give impetus to regional connectivity and fulfil prime minister's dream of common man flying in aeroplanes," the minister added. Mr Vardhan, who visited various facilities at NAL here, said India was among the 3 to 4 countries where carbon fibre composite airframe components are being manufactured. The project was started many years ago but due to technical reasons it was stalled sometime back. However, the team under Dr Jitendra J Jadhav has revived it again, he said. The carbon fibre has use in multiple places, Vardhan said, adding that besides DRDO and Bhabha Atomic Research Centre, Mr Mishra Dhatu Nigam Limited (MIDHANI), a PSU under the defence ministry, is in the process of setting up a 300 'TPA' manufacturing unit for carbon fibre with the technology devised by NAL. "Private sector too is keen on this project (of carbon fibre). I have been told that Reliance has shown interest,"Mr Vardhan said. The UAV design and integration facility the minister inaugurated today satisfies the requirements of various users, both from the strategic and civil sectors, NAL officials said. These include autopilot, control loss, ground control station software, vision processing algorithms and processes for small manufacturing light weight composite structures. A specialised wind tunnel facility to study low 'Reynolds Number' effects has also been established, they said. The minister said these facilities would help in surveillance, mapping, search and rescue operations too.

Source: https://economictimes.indiatimes.com/

Publisher

Journal of Aerospace Sciences And Technologies
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Advertisement – Tariff

A4 – 1 Full Page : Rs. 2000
Draft Drawn in Favour of "Journal Office, The Aeronautical Society of India" Payable at Bangalore

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CURRENT AFFAIRS

New copters to enable tech transfer

The Defence Ministry is shortly expected to release project-specific implementation guidelines for the 111 naval utility helicopters to be procured under the Strategic Partnership (SP) model. However, foreign companies say there is still some clarity required on crucial legal, liability and technology transfer issues. “There are two important issues that need clarity. One is legal. We can’t sell a submarine or fighter jet to a private company. Global regulations do not allow that. It has to be to a government-owned company. So, there has to be a government-to-government component in the end,” a top executive of a foreign company said.

Large infrastructure

For the first time, under the SP model, Indian private companies will get to tie up with global original equipment manufacturers (OEMs) and build major defence platforms in India under technology transfer. So far, it was defence public sector undertakings (DPSUs) which played the lead role. The other issue, was about the liability of the end product. For us to stand guarantee to the finished product built by a local company is a problem. There has to be a back-end mechanism to enable us. This liability issue was one of the major reasons the earlier medium multi-role combat aircraft (MMRCA) deal for 126 jets got derailed at the contract negotiation stage, after Dassault Aviation refused to stand guarantee to the aircraft manufactured by Hindustan Aeronautics Ltd. (HAL).Another senior executive observed that there is large infrastructure already present in the country with DPSUs and this must be utilised for the benefit of both the country as well as form a business sense. We hope to try and use that. There is no point reinventing everything. It will be risk mitigating for everyone. There is need for some clarity from the MoD on production transfer and technology transfer as well, In July-end, the Defence Acquisition Council (DAC) cleared the general as well as project-specific implementation guidelines for the naval helicopters that would lay emphasis on transfer of technology and high absorption of indigenous content. The guidelines and the qualification guidelines are yet to be communicated to the industry. All procurements under the SP model would be executed by specially constituted empowered project committees (EPC) to ensure timely execution, the Ministry said. Apart from the helicopters, the projects to be processed under the SP model are fighter aircraft, P-75I submarines and armoured vehicles.

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

In a first, LCA naval variant lands on warship deck

The Light Combat Aircraft’s (LCA) naval variant landed on the deck of warship INS Hansa in Goa, said its maker Hindustan Aeronautics Ltd (HAL). “LCA Navy (NP2) undertakes maiden taxi-in engagement to prove arrestor hook system of aircraft at sea-bed test facility Goa,” tweeted Defence Minister Nirmala Sitharaman. “This is the first of a series of engagements planned to prove the arrestor hook capability of the combat fighter,” said HAL Chairman T. Suvarna Raju. The achievement pushes India into a select club of the US, Europe, Russia and China in having the capability of deck-landing by a fighter aircraft. “Piloted by Captain Shivnath Dahiya, the LCA naval prototype (NP-2) landed safely on the deck of INS Hansa at the naval shore-based test facility in Goa,” said state-run defence behemoth HAL. The maiden feat involved the pilot making contact of the arrester hook system with the arresting wire at moderate taxi-in speed on the location at the test facility. The first taxi-in engagement was monitored by the landing signal officer Commodore J.A. Maolankar and test director Group Captain A. Kabadwal (Retd). The city-based aerospace major’s design wing, Aircraft Research and Design Centre, developed the arrestor hook system for ship-deck operations of LCA naval version. The LCA naval prototype was integrated with the hook system and has been operating at INS Hansa since after the landing system was verified in-air operation in Bengaluru. The naval air station has a 14-degree ramp along with testing sensors and other equipment to monitor the flights. The prototype’s carrier compatibility trials are slated at shore-based test facilities, built at the Indian naval base in Goa on the West Coast. The evaluation involves shore-based trials before embarking on actual deck of an aircraft carrier like INS Vikramaditya for LCA Navy next year. State-run Aeronautical Development Agency (ADA), the military aircraft’s airworthiness certifying

agency Cemilac and the Indian Navy worked together for the maiden deck landing. A series of trials are planned which will involve landing, refuelling and take-off from an aircraft carrier near the West Coast after a slew of ground tests at higher speeds. The single-jet engine Tejas is the smallest and lightest multirole supersonic fighter aircraft of its class. The tandem twin-seater aircraft is integrated with avionics and flight controls for ground runs and taxi trials. The naval variant can also be deployed on the second indigenous aircraft carrier INS Vikrant, being built at the Cochin Shipyard.

Source: https://www.business-standard.com/

Defence Ministry throws 11 challenges at start-ups

Defence Minister Mrs Nirmala Sitharaman unveiled the Defence India Startup Challenge, an initiative to tap startups for finding safe and futuristic Indian solutions to critical needs of the three Armed Forces. Mrs Nirmala Sitharaman released a list of 11 technologies that the Army, the Navy, and the Air Force need, to begin with. They included remote air vehicles, laser weapons, secure and safe communication systems and bandwidth, precision targeting systems, sensors, and protected and informed movement of soldiers in battle tanks. Those that come up with prototypes of usable products would be supported with ₹ 1.5 crore each and friendly procurement procedures from the Ministry under SPARK or Support for Prototype & Research Kickstart in Defence. “This time, we have come to you for ideas. We want a lot of disruptions. Advancements [needed for the defence sector] should happen in India itself. We look forward to your ingenuity to keep our citizens safe,” the Minister told 200 startups in the presence of service brass and heads of defence PSUs. Earlier, respective Vice-Chiefs spelt out the requirements of their Forces: four for the Army, five for the Navy, and two for the Air Force. Startups participating under the Make-II or indigenous production procedure of the Defence Procurement Policy 2016 projects would be entitled to get a prototype development cost of up to ₹ 3 crore. The schemes are part of Innovations for Defence Excellence initiative launched at the DefExpo held in Kanchipuram in April. They would be supported by a ₹ 100-crore Defence Innovation Fund kick-started by defence PSUs Hindustan Aeronautics Ltd. and Bharat Electronics Ltd. The Defence Innovation Organisation signed MoUs with four of five selected incubators to mentor entrepreneurs and small and medium industries to create technologies for the military. The four are the Centre for Innovation Incubation and Entrepreneurship, IIM Ahmedabad; Society for Innovation and Entrepreneurship, IIT Bombay; T-Hub, Hyderabad; and FORGE under the Coimbatore Innovation & Business Incubator. IIT-Madras is the fifth partner. Bengaluru-based Tonbo Imaging received a first of its kind certificate of accord of approval in principle for its proposal, Night Fire Control System for AGS-30.

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

Bengaluru: HAL chief flies LCA

HAL CMD T. Suvarna Raju flew the indigenous Light Combat Aircraft Tejas from the HAL Airport on. The twin-seat variant of LCA (PV5) was piloted by Group Captain K.K. Venugopal, HAL’s Chief Test Pilot. In a thrilling set of manoeuvres, the aircraft climbed to 30,000 feet and accelerated to supersonic speed of 1.1 Mach. This was followed by a simulated launch of Beyond Visual Range missile on a target of opportunity, said Mr Raju after the sortie. “It is a wonderful flying machine, capable of being the backbone of IAF combat power in the years to come,” he said.

Centre launches portal for scientific research, funding

How does a budding math enthusiast figure out career prospects for pursuing mathematics in India? Which individual professors are blazing new trails in, say, climate change research here? The Union science ministry’s communication wing, Mr Vigyan Prasar, has launched the India Science Technology and Innovation portal that can help with such queries. Currently the portal can be queried for information about the organisations carrying out research, those funding them, international collaborations, the scientists involved in the research, the states in which they are being carried out, their achievements and impact. There’s also a compilation of technologies developed in India, the organisations that have developed these technologies, those that have funded them and the status of the technologies. “A major thrust of the portal is to reach out to students, researchers, scholars, scientists both from India and abroad, so that they can choose from the mine of fellowships, scholarships and funding and startup opportunities that India

puts on their plate," says a note accompanying the portal. The portal follows a launch this week of India Science (indiascience.in), an Internet-based science channel, to showcase the developments in science and technology in India. Both the portal and the channel are part of a push by the Science Ministry to improve its public outreach. By next year, the Ministry hopes to offer science programmes on Doordarshan and eventually launch a dedicated science channel. According to a roadmap prepared by the Union government, the Science Ministry proposes to spend ¹ 15 crore over five years to cover costs of portal development and updates.

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

We averted a possible debacle: ISRO chairman

Indian Space Research Organisation could have faced a ?1200-crore debacle in space had it not brought GSAT-11 back from the Guiana launch port in late April, its Chairman K. Sivan said .Speaking for the first time on issues raised about the 5,700-kg high throughput satellite, he justified ISRO's unprecedented decision to recall the satellite midway between its reaching the French port and the launch. Dr. Sivan said an apex committee of former chairmen and former space commission members collectively decided to bring GSAT-11 back to Bengaluru for a thorough check. "There is ?1,200 crore at stake as costs of the satellite and the launch, apart from India's reputation. We cannot afford to take risks in such a high profile mission. We did lose our place in the launch queue when we brought our satellite back. But it turned out to be a wise decision. GSAT-11 had the same set of power system configuration that two older satellites had. RISAT-1 died prematurely and GSAT-6A lost communication contact soon after launch on March 29 because of suspected power system failure, harnesses etc… We had just sent GSAT-11 [to Guiana] and no one was sure if the same issue was there in GSAT-11," he said. Checks found that the provision or "margin" for the deployment of the solar panel was much smaller than was required. "Had it gone in that configuration, the panel [which generates power for the 15-year life] would not have deployed in space. The satellite would have been a failure. We had a chance to improve a major system. We are also confident that the failure issue has been overcome." Contrary to a few reports, there was no pressure on ISRO nor were the two new launches a quid pro quo for taking GSAT-11 to space, he said. GSAT-31 and 30 would be signed this month only because launches with Arianespace must be committed four months before launch date that ISRO sought — before December 15 — he said. The national space agency had envisioned that its two GSLV rockets would fully take over geostationary orbit launches and that GSAT-11 — its heaviest to date and most ambitious for digital communication — would be its last satellite to go outside India for a launch. But early this year, it realised that upgrading a GSLV-Mk2 engine would need more time. The bigger Mark 3 was also not available in time. "We already knew that we have to look for outside launch again for these two satellites," Dr. Sivan said.

Source: https://defenceupdate.in/

New Year to mark grand launch of Chandrayaan-2 mission

Missing its deadline to launch Chandrayaan-2 mission in 2018, the Indian Space Research Organisation (ISRO) hopes to begin the New Year on a grander note by tentatively considering the launch window on 3rd January. Scheduled to have been launched by now, the mission has undergone a lot of changes in its design and configuration. Confirming that ISRO has chosen 3rd January as the launch window, ISRO chairman K Sivan said, "We are working hard towards meeting the deadline. However, it is again an open window and perhaps goes on till March if we miss the deadline. However, between January and March, the mission will be launched." Revealing changes in the configuration of the mission, Sivan explained, "The changes were crucial considering the soft landing of the module on the Lunar surface. The four engines would have whipped up the dust during the landing causing damage to the equipment and hence another engine was also added suggesting more fuel requirement for the soft landing." Chalking out plans to celebrate the centenary birth anniversary of renowned scientist and father of India's space programmes Dr Vikram Sarabhai, ISRO has announced to name the Chandrayaan-2 lander as 'Vikram' after its founding father. "The Space Commission has cleared the proposal. This will be one among several such initiatives planned all through the year to mark the centenary

celebrations," Sivan said, on the sidelines of unveiling the bust of Dr Vikram Sarabhai at ISRO headquarters in Bengaluru. Former ISRO chairman Dr Kasturirangan unveiled the bust of Sarabhai and recalled his contribution. Small vehicles Testing the commercial viability of its launch vehicles, ISRO will demonstrate the SSLV, also called as baby rocket, in May-June 2019. "The cost of launching SSLV will only be 1/10 of PSLV launch and will be able to carry a load of 500-700 kg. The vehicle measuring 34 mtrs-long with 2 mtrs in diameter will be an on-demand launcher. While it takes 45-60 days for a normal launch, SSLV can lift off in just 72 hours with just 5 to 6 people," Dr Sivan explained. The ISRO will adopt the consortium approach to spur the production of the vehicle by individual industries. ISRO TV channel soon Unable to reach out to all parts of the country, ISRO plans to launch its own television channel to telecast customised science programmes. "Most of rural India is unaware of our space programmes, including my own village Tarakkanvillai, near Nagercoil. The story of our space programmes can be produced in various languages to benefit the children and arouse interest in science. As part of capacity building measures, ISRO will open its doors to students by picking children from classes 8th to 10th standard. "The students will be trained for 30 days and get exposure to various facilities at ISRO. This would help develop scientific temper. The students will visit all labs of the ISRO and launch facilities at Sri Harikota. At the end of the training they will make small satellites," Dr Sivan said. Taking note of the robust startup eco-systems in Bengaluru, ISRO plans to tap into the talent pool and enrich its programmes with local talent. "We have planned six incubation centres across India to identify such talent pool. They need not join ISRO but can contribute towards the successful mission through their start-up ventures," Dr Sivan explained.

Source: https://m.dailyhunt.in/

'Massive Army reform under way'

Defence Minister Ms Nirmala Sitharaman, in her first address to the armed forces on the eve of Independence Day, highlighted the government's efforts to reform the Army in a big way. "In a first ever exercise after Independence, the Ministry of Defence in consultation with the Indian Army has decided to reform the Indian Army in a planned manner… This restructuring is aimed at enhancing the combat capability of the Army in a manner that the officers, Junior Commissioned Officers (JCO) and Other Ranks (OR) will be used for improving the operational preparedness," the Minister said in the address. Ms. Sitharaman said the first phase of the reforms involved redeployment and restructuring of approximately 57,000 posts of officers, JCOs, ORs and civilians. The major reforms include optimisation of signals establishments, restructuring of repair echelons, redeployment of ordnance echelons, better utilisation of supply and transport echelons and animal transport units besides closure of military Farms and Army postal establishments in peace locations. Assuring that there shall be no shortcoming in providing all dues and facilities to soldiers, Ms. Sitharaman said that in line with the recommendations of the 7th Pay Commission, the Ministry has taken "the decision to pay uniform allowance" and clarity has been brought in with respect to "what is covered within the ambit of the allowance and what clothing items will be provided by the government." Ms. Sitharaman also stated that to ensure faster decision making, for day-to-day requirements of the troops or ammunition, greater powers have been delegated to the service headquarters and other lower functionaries.

Source: https://theworldnews.net/

Chandrayaan-1 data confirms presence of ice on Moon: NASA

Scientists have found frozen water deposits in the darkest and coldest parts of the Moon's polar regions using data from the Chandrayaan-1 spacecraft that was launched by India 10 years ago, NASA said. With enough ice sitting at the surface — within the top few millimetres — water would possibly be accessible as a resource for future expeditions to explore and even stay on the Moon, and potentially easier to access than the water detected beneath the Moon's surface. The ice deposits are patchily distributed and could possibly be ancient, according to the study published in the journal PNAS. At the southern pole, most of the ice is concentrated at lunar craters, while the northern pole's ice is more widely, but sparsely spread. Scientists used data from NASA's Moon Mineralogy Mapper (M3) instrument to identify three specific signatures that definitively prove there is water ice at the surface of the Moon. M3, aboard the Chandrayaan-1 spacecraft, launched in 2008 by the Indian Space Research Organisation (ISRO), was uniquely equipped

to confirm the presence of solid ice on the Moon. It collected data that not only picked up the reflective properties we would expect from ice, but was also able to directly measure the distinctive way its molecules absorb infrared light, so it can differentiate between liquid water or vapour and solid ice. Most of the new-found water ice lies in the shadows of craters near the poles, where the warmest temperatures never reach above minus 156 degrees Celsius. Due to the very small tilt of the Moon's rotation axis, sunlight never reaches these regions. Previous observations indirectly found possible signs of surface ice at the lunar south pole, but these could have been explained by other phenomena, such as unusually reflective lunar soil. Learning more about this ice, how it got there, and how it interacts with the larger lunar environment will be a key mission focus for NASA and commercial partners, as humans endeavour to return to and explore the Moon.

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

Iran unveils 'first' domestic fighter jet

Iran yesterday unveiled what it said was its "first" domestic fighter jet, with President Hassan Rouhani insisting that Teheran's military strength was only designed to deter enemies and create "lasting peace" Images on state television showed Mr Rouhani sitting in the cockpit of the new "Kowsar" fourth-generation fighter at the National Defence Industry exhibition in Teheran. State media said the plane had "advanced avionics" and multi-purpose radar, and that it was "100-per cent indigenously made" for the first time. The jet was capable of carrying various weapons, and will be used for short aerial support missions, Tasnim news agency said. Footage of the Kowsar's test flights was circulated by various official media. But live footage of the plane taxiing along a runway at the defence show was cut before it could take off. "When I speak of our readiness to defend, it means we seek lasting peace. If we lack readiness, we welcome war," Mr Rouhani said in a televised speech shortly after. "Some think when we increase our military power, this means we seek war. (But) this is peace-seeking because we don't want war to happen," Mr Rouhani added. "If we don't have a deterrent... it gives a green light for others to enter this country." The plane was first publicly announced last by Defence Minister Amir Hatami, who had said it would be unveiled today. He gave few details of the project, focusing instead on Iran's efforts to upgrade its missile defences. Brigadier-General Hatami said the defence programme was motivated by memories of the missile attacks Iran suffered during its eight-year war with Iraq in the 1980s, and by repeated threats from Israel and the United States that "all options are on the table" in dealing with the Islamic republic. "We have learned in the (Iran-Iraq) war that we cannot rely on anyone but ourselves," he said in a televised interview. Washington has sold hundreds of billions of dollars of weapons to Teheran's regional rivals, but has demanded that Iran curb its defence programmes, and is in the process of reimposing crippling sanctions on the country in a bid to force its capitulation. Mr Rouhani said Iran must show restraint as well as deterrence, in an apparent swipe at his hardline opponents who seek to provoke the US with aggressive slogans. "With a couple of sentences one can start a fight. With a couple of military moves one can enter confrontation. But then it will be costly," he said. Following the withdrawal of the US from the 2015 nuclear deal in May, Iran has avoided an aggressive response and sought to maintain its goodwill with other international partners who oppose Washington's move. Mr Rouhani said US pressure was also a spur to action. "Why does America impose economic sanctions on us? Why does it impose them on Turkey? Why does it drag China into an economic war? Because it feels each one of them has a weak point. We must fix our weak points." Iran's air force has been limited to perhaps a few dozen strike aircraft using either Russian or ageing US models acquired before the 1979 Iranian revolution. Iran unveiled in 2013 what it said was a new, domestically built fighter jet, called Qaher 313, but some experts had expressed doubts about the viability of the aircraft at the time.

Source: https://www.straitstimes.com/

ISRO awaits advanced materials

A national effort is needed to develop and produce advanced materials to drive the future space programme, Indian Space Research Organisation (ISRO) chairman Dr K. Sivan has said. Along with high propulsion systems for its launch vehicles, the ISRO is pursuing materials that have extraordinary properties, such as aluminium and beryllium alloys and carbon nanotubes. These are needed for the upcoming high-profile national missions such as the Human Space

Programme (HSP), the Reusable Launch Vehicle (RLV), re-entering crew capsules, fuel-saving scramjet missions and the distant single-stage launchers. Locally made materials will also help to cut imports and also lower mission costs, Dr. Sivan said here. He was delivering the 37th annual Brahm Prakash memorial lecture organised by the Indian Institute of Metals and the Indian Institute of Science. Brahm Prakash was a renowned metallurgist and former director of ISRO's Vikram Sarabhai Space Centre, Thiruvananthapuram, in the 1970s. "In recent years, ISRO has indigenised a large number of materials that are hard to get. This has reduced the import content from around 32% to 8% now. However, development of advanced materials such as carbon carbon composites and those for electronics is the immediate need of the space programme. A national effort is required in these two areas," Dr. Sivan said. Over the years, ISRO has localised maraging steel, many aluminium alloys, composites, chemicals, coatings and high temperature items. A hafnium-neobium has been produced to create a superalloy of columbium for advanced missions and needs to be produced on a large scale. ISRO is now looking for aluminium and beryllium alloys to make smaller structures; and carbon-carbon composites for the nose cone of the RLV; and carbon nanotubes for fuel tank systems and silica alternatives for thermal tiles. Next-generation semicryogenic launchers and electric propulsion systems of smaller future satellites need them. Industry must take it forward in an aggressive way, he said addressing metallurgists. "Lab-level R&D can produce small quantities of special materials. We want industry to come forward to produce them in large quantities," Dr. Sivan later told this newspaper. A carbon fibre technology developed with National Aeronaticial Labs awaits a production partner. Material costs alone are 85% of a launch vehicle. The remaining 15% includes the propellant, technology, labour, tracking and everything else. "Materials are the heart of any space programme. Without advancements in them we cannot keep it going." New materials are needed to make lighter, stronger, faster and safer space vehicles of the future. They must ensure that satellites and launchers work safely and well in extreme hot and cold conditions of space; amidst high pressure and protect crews from radiation hazards. They should also protect space vehicles from the impact of micro meteorites that may hit them. Much of ISRO's materials research is conducted at VSSC, the rocket development centre, with other centres chipping in. A few hundred scientists work on developing metals, ceramics, materials used in electronics. VSSC's transfer of titanium sponge technology to Kerala Metals and Minerals Ltd is a major success story. Since 2015, it has erased ISRO's import of 200-300 tonnes each year, bringing down the material's cost and creating a surplus supply in the country.

Source: https://www.thehindu.com

Kalaburagi airport set for trial landing

The much-delayed Kalaburagi airport is likely to see the light of day as the Airport Authority of India (AAI) has approved the trial landing of aircraft. The proposed touchdown of the first aircraft is scheduled. According to official reports, of the three packages, 80% of works, taken up under Package I and Package II at a cost of ¹ 90.66 crore and Rs 31.12 crore respectively have been completed. Of the total allocation of Rs 90.66 crore in Package I, the Public Works Department has spent around Rs 74.26 crore for constructing the 3.27-km runway, the 9.7 km peripheral road, and the compound wall. In the Package II, as much as Rs. 7.28 crore is spent on building the terminal building, Air Traffic Control (ATC) building, electrical sub-station building, crash fire rescue building, underground tank, signage and direction boards. Work on installing the Airfield Lighting System, automatic weather session instrument cables, air conditioning, baggage system, flight information display system are in progress. Officials said the completion of these works was not a prerequisite for trial landing. They expect the remaining works to be completed in a month to make the airport ready for operations in October. The former Chief Minister Mr B.S. Yeddyurappa had laid the foundation stone for the project to be developed by June 2008. The contract for building the airport went to Gulbarga Airport Development Ltd. (GADL), a Special Purpose Company, in 2007. But delays in completion led to the termination of the agreement in 2015 and the State government handed over the remaining works to the Public Works Department. Initially, the government had decided to limit the runway length to 1,000 metres, but later extended it to 1,970 m to facilitate the landing of larger aircraft. However, on the insistence of the former Union Minister Mr M. Mallikarjun Kharge, who is from Kalaburagi, the length of the runway was further extended to 3,200 m to enable the landing of bigger aircraft, such as an Airbus. The width of the runway was also widened from 45 m to 60 m.

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

Chandrayaan-2 to dig deep for water or ice on Moon

With NASA disclosing that its payload on board India's Chandrayaan-1 orbiter has found "frozen water deposits in polar regions of the moon", ISRO's Chandrayaan-2 mission, to be launched in the first week of January, will get an edge as it is going for deeper exploration in the same region — the south pole of the moon. Talking to TOI, ISRO chief K Sivan said, "NASA findings are good and useful. The Chandrayaan-2 lander will do a soft-landing on the south pole of the moon and the rover will analyse the content there. The mission will give us more data which will enrich our knowledge about the moon." He said further exploration will help us find out if humans can inhabit the place in future. Sivan said, "The three key components of Chandrayaan-2 — orbiter, lander and rover—will carry 13 payloads for mapping terrain and look for minerals, water or ice formations. Unlike last time when Chandrayaan-1 carried foreign payloads, this time there won't be anyone on NASA's payload Moon Mineralogy Mapper (M3) finding ice in the shadows of the crater, former ISRO chief Kiran Kumar told TOI, "Had we not launched Chandrayaan-1, foreign payloads like NASA's M3 would not have made this discovery." On Chandrayaan-2, he said, "Significant improvement has been made on scientific payloads this time for deep exploration. The payload in the Chandrayaan-1 could scan wavelength up to 3 micron but we have increased the capacity of the Chandrayaan-2 payload. It can scan wavelength up to 5 micron or 5,000 nano metre (our eyes can see wavelength of 400 to 700 nano metre). So, whatever is emitted from the surface will be picked up by this payload. It will improve the assessment of the lunar surface." He said, "The laser instrument on the rover will fire laser pulses at the surface, which will thus emit ions. These emissions will be scanned and will help the rover analyse the content."

Source: https://economictimes.indiatimes.com/

TECHNOLOGY

Drone tech in state to help farmers up productivity

Very soon drones will hover over the skies in select villages of Haveri district to assist farmers in carrying out farming activities. The state government has roped in Delhi-based firm Omnipresent Robot Tech to deploy drones on a pilot basis to assess the crop acreage, crop types, crop health and yield estimation among others According to Gaurav Gupta, Principal Secretary, Department of Information Technology, Biotechnology and Science and Technology, the use of drones in farming activities is going to be a game changer in Karnataka. "The project is being piloted in kasaba-hobli of Haveri taluk in an area of about 200 sqkm," he told DH. Gupta said the drone operations will be carried out over a period of three months during the crop life cycle in the current kharif season. "The Karnataka Science and Technology Promotion Society (KSTePS), a subsidiary organisation of the Department of Science and Technology, has now taken the initiative to implement the pilot project," he said. KSTePS has awarded the project to robotics, industrial UAV/ drone and video analytics solutions provider Omnipresent Robot Technology. The government has made a grant provision of Rs 2.5 crore for implementing the pilot project. Commenting on the project, Omnipresent Robot Tech founder Akash Sinha said the company will provide data on crop health from multi-spectrum images. "We give inputs on crop water content, requirement of fertilisers and pesticides, health condition of plants and this will help 10% to 15% hike in production," he said. The company's data analytics platform Nerve centre will give AI-based analysis on a real-time basis on the crop type, area, volume and health of crop among others. "We will create a map of our own based on the orthomosaic images by stitching together thousands of images. It will be shared with extension officers and farmers to do the needful," he said. He said the company will ply six drones and it will be backed by four other drones, which are manufactured at the Visakhapatnam plant. The company will also install ground-based control points to collect data. "Our data can give clarity on how much crop production will happen. It will help the insurance firms and banks to inform the farmers to take appropriate decisions on repayment of loans," he added.

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

E-NEWS

Drones to help Bengaluru traffic police

Traffic movement in chosen areas of Bengaluru is set to be managed with the help of drones from next week. A pilot project was launched in the city by IT/BT and Science & Technology Minister K.J. George. Under the Unmanned Aerial Systems (UAS) scheme, vehicular movement in chosen parts of the city would be monitored through drones during peak hours.

Real-time data

Akash Sinha, CEO of Delhi-based Omnipresent Robot Tech, which has been chosen to execute the project, told reporters that drones would help traffic police in not only identifying the number of vehicles passing through a particular stretch, the speed of vehicles and their category, but also their number plates. “The real-time data will be passed on to the police officers concerned who would take a call on methods of traffic management,” he said. Drone surveillance would also help in maintaining the law and order situation, particularly crowd management, he pointed out. This could help in initiating public safety measures during incidents of fire, he said, and noted that video footage as well as photos would be passed on to the authorities concerned from drones.

From 2 to 20 soon

To begin with, Bengaluru would get two drones. The number could go up to 20 depending upon the requirement, he said. Such management of vehicular traffic through drone surveillance had already been implemented in Andhra Pradesh, he said. Karnataka State Natural Disaster Management Centre Director Mr G.S. Srinivas Reddy said drone surveillance could also help in assessing damage during urban floods and other natural disasters.

Drones in agri, urban development and policing

Karnataka has joined the ranks of States using Unmanned Aerial System (UAS), or drones, in governance. The State launched a pilot project to use drones in agriculture, urban development and policing. Demonstrative application projects using drones would be taken up in Kasaba hobli of Haveri district to conduct a survey of the extent of crops, their health status and yield in 200 square kilometres. The operations would be carried out in three months during the crop life-cycle in the present kharif season. In Bantwal town of Dakshina Kannada district, a survey of 60 sq. km. would be carried out through drones to prepare a detailed base map to provide inputs for evolving a master plan for the town. The third application of drones would be in policing in Bengaluru. Karnataka Science & Technology Promotion Society (KSTePS) will implement the pilot projects in co-ordination with the other departments concerned. Participating at the launch of the pilot project, IT & BT Principal Secretary Gaurav Gupta said the Karnataka Knowledge Commission, headed by space scientist Dr. K. Kasthurirangan, had recommended to the government to take up specific applications to demonstrate end-to-end practices for use of drones in governance. Agriculture Minister Mr N.H. Shivashankar Reddy said the government is particularly interested in using drones for conducting a Statewide survey of crops and land-holding to get accurate data.

Policy to promote use of drones

IT&BT Minister K.J. George announced that the State would shortly announce a policy for use of drones. The policy will promote their use in agriculture, urban development and police operations, he said. The policy would look into design and manufacturing of drones locally.

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

HAL tests rotary drone co-developed with IIT-K

A 10 kg rotary drone co-developed by Hindustan Aeronautics Ltd (HAL) and IIT-Kanpur was recently flown for the first time in Bengaluru, the defence public sector company said. The 10-minute flight of the helicopter-like RUAV or the Rotary Wing Unmanned Aerial Vehicle was powered by a 2-stroke petrol engine. The RUAV can carry a 2.5-kg payload or instrument including a live-streaming video camera. It can operate for an hour and travel 8-10 km, a statement said. “With this demonstration, HAL’s Rotary Wing R&D Centre is well poised to undertake development of [heavier] rotary UAVs with weapons as payloads,” HAL chairman and managing director Mr T. Suvarna Raju was quoted as saying. Apart from military and civil helicopters, the centre is designing and developing rotary UAVs for defence, paramilitary forces and homeland security. The RUAV is the first outcome of HAL’s R&D tie-ups with academic institutions such as IITs of Madras, Roorkee, Kharagpur, Bombay, Kanpur and the Indian Institute of Science, Bengaluru.

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

NAL gets cracking on smaller, smarter drones

Despite the rapid advances in Unmanned Aerial Vehicle/drone technology, a robust drone regulatory mechanism is still not in place in India. But what about the future? To get beyond catch-up, a new UAV design and integration facility was launched by the National Aerospace Laboratories (NAL) here. Formally inaugurated by Union Minister for Science and Technology, Dr Harsh Vardhan, the facility houses design, analysis and related software, 3D printing/rapid prototyping, avionics testing and vehicle integration. As a NAL official explained: "This will enable the design engineer to go through the complete development cycle, from concept to product." Diversifying deeper into the dynamic UAV world, the NAL has so far developed fixed-wing UAVs with a 2-meter wingspan. Its focus now is on UAVs that can carry payloads ranging from 5 to 100 kg. This is expected to provide services to agriculture, forest, mining and other civil sectors. In the defence sector, surveillance has been a critical role of UAVs. The NAL demonstrated a static model of the Suchan, a 4.5-kg class UAV fitted with interchangeable day and night vision cameras. With a range of 10 km, the UAV is capable of reaching an altitude of 11,000 ft, limited only by the camera. The new facility is expected to give a push to the NAL's efforts to design and build rotary UAVs, going beyond the fixed-wing mini-drones. The NAL, along with the DRDO, has already designed and developed an indigenous rotary engine for application in UAVs.

Source: https://m.dailyhunt.in

India Building New Fighter Jet

The Advanced Medium Combat Aircraft (AMCA), India's next indigenous fighter, is expected to make its first flight by 2032. Development work on the jet is under way. "The AMCA will feature geometric stealth and will initially fly with two GE-414 engines. Once we develop our own engine, it can be replaced with that. We expect the first flight in 2032," a defence source said. "There are two major ways of making a military platform stealthier. One is geometric stealth and other is material stealth. In geometric stealth, the shape of the aircraft is designed at such angles so as to deflect away maximum radar waves thereby minimising its radar cross section. In material stealth, radar-absorbing materials are used in making the aircraft which will absorb the radio waves thus reducing the radar footprint. The AMCA will initially be based on geometric stealth, we can look at material stealth at a later stage," the source said. The Indian Air Force has given land to the Defence Research and Development Organisation to set up facilities for the project. The plan is to build on the capabilities and expertise developed during the development of the light combat aircraft (LCA) and produce a medium fifth generation fighter aircraft. "Apart from the technologies developed from the LCA project, the new fighter programme is important as technologies coming in through that will flow into the AMCA project," another official source said. The aircraft will be powered by the same GE-414 engine on the LCA Mk-2 variant which is in the design phase. A GE-414 produces 98kN thrust compared to 84kN thrust of the GE-404 engine which is on the LCA Mk1. At Aero India 2016, DRDO officials had stated that the basic design configuration has been frozen after wind tunnel testing and there are three critical technologies that need to be developed — stealth, thrust vectoring and super cruise. This is India's only fifth generation aircraft programme following the decision not to go ahead with the fifth generation project with Russia.

Source: http://www.asdnews.com/

Drones to space Internet, IISc incubates start-ups

Better known for his former role as the programme director and chief designer of India's indigenous light combat aircraft (LCA), 75-year-old Dr Kota Harinarayana is the founder-chairman of General Aeronautics, an Indian Institute of Science (IISc) incubated start-up. The start-up designs and makes unmanned aerial vehicles or drones focused on security and civilian applications. One application is to use these drones to transport organs faster than ambulances for organ transplant procedures to save lives. "For organs, especially the heart, the life is very limited after it is

harvested from the donor," says Dr. Harinarayana. "But the road transport takes a long time as a result of which quite often when the organ reaches to the recipient, it is in unusable condition." General Aeronautics is among a growing number of start-ups incubated by the Society for Innovation and Development (SID) housed on the IISc campus in Bengaluru, which aim to commercialise innovations that can have a direct impact on society.

Moonshots

Most of the start-ups are based on moonshot ideas. These include drones to transport organs, satellites that provide Internet connectivity in rural areas and devices that help doctors to detect and diagnose diseases like cancer. "The risk is high. When they come to us with a proposal, our job is to make sure that while it may look like a moonshot idea, it is actually doable," says Mr C.S. Murali, chairman, STEM Cell, SID, IISc. "Our vision is to really help commercialise science and technology for the societal benefit through start-ups," says Mr. Murali, who brings business expertise from his long years in the tech and venture capital industries. The incubator, tucked away in a discreet corner of IISc's verdant campus, connects these deep science start-ups with customers and investors and even helps in writing the business plans. What differentiates the SID facility, says Mr. Murali, is that it also supports the young ventures with business and technical mentorships from the institute's faculty and provides access to its sophisticated equipment. "We proved that we can bring academia, research and development [organisations] and industry together and achieve a world-class product," says Dr. Harinarayana of General Aeronautics. The company is also working with IISc to develop 'Life Box' a device which can keep the heart harvested from the donor in good condition and increase its preservation time by maintaining various parameters such as temperature. The box would be transported to the recipient for transplant using a drone.

SpaceX challenger

"Our whole concept was only on the paper... IISc believed in it and incubated us," says Ms Neha Satak, who along with Mr Prasad HL Bhat co-founded Astrome, a space technology company which could potentially compete globally with tech entrepreneur Elon Musk's SpaceX. Astrome's goal too is to solve the problem of connectivity by beaming high bandwidth Internet from space. Astrome is developing a technology that it says would cut the cost of Internet access through satellites by 12 times. It plans to launch 200 satellites in the next few years to low-earth-orbit to beam reliable Internet to people living in small towns and villages. The firm says its Internet would be available in all developing countries and along major sea and air routes. Reliable Internet connectivity, says Astrome, has the potential to bridge the rural-urban economic divide and revolutionise healthcare and education.

Fighting cancer

Another start-up SIAMAF Healthcare has built a technology for the staging and treatment of breast cancer. Its first product is MafPro, an ultrasensitive hand-held magnetic probe which offers "unprecedented quality and value of care benefits" to patients, doctors and hospital administrators, according to the company. "Our device can tell how far cancer has spread and that provides enough information to the doctor to make a proper diagnosis," says Dr Subhasis Sarangi, founder of SIAMAF. A physicist and biomedical engineer working at St. John's Research Institute, Dr.Sarangi says the device has successfully completed initial laboratory and animal validation. Head and neck cancer, melanoma, colon cancer and lung cancer sufferers are also likely to benefit from this technology, according to Dr.Sarangi. His peer Mr Vinay Kumar's venture PathShodh Healthcare is leveraging the bio-sensing technology for point-of-care devices aimed at providing ease-of-diagnosis and better management of chronic diseases. PathShodh has introduced first of its kind handheld device with the capability to measure multiple biomarkers specifically targeting diabetes and its complications, kidney disease, anaemia and liver-related ailments. For instance, its phone-sized device is able to test eight different parameters related to diabetic management and early detection of complications such as kidney failure. "Most of these tests are available in big pathology labs [and] we can cut the cost by 70% which these labs are charging," says PathShodh's co-founder Dr .Kumar. He aims to "democratise diagnostics" as this device can be taken to remote areas and it can store thousands of test reports which can be transferred via Bluetooth or the mobile network. The venture which has already filed eight patents in different countries including the U.S. and U.K. intends to deliver its diagnostic products to medical professionals, institutions and channel partners worldwide. SID is also incubating Mimyk which works on developing immersive medical simulation technologies and combines hardware and software to create such platforms. Simulations can improve the result of surgeries as "doctors can practice them before performing them on patients as well as visualise the operative procedures in real time while actually conducting

them," says Mr Shanthanu Chakravarthy, co-founder of Mimyk. Its technology was developed through a collaborative research and development activity carried out at the various IISc labs.

Challenges

Most of these ventures have received grants and funds from government-run organisations such as Biotechnology Industry Research Assistance Council (BIRAC) and the State government's Department of Information Technology, Biotechnology and Science & Technology and niche investors. However, at a time when e-commerce companies are raising billions of dollars, many of the founders said "scaling up" is a challenge as most of big mainstream venture capital investors shy away from investing in deep science start-ups. "The mindset of the investors has to change… [and] not only focus on e-commerce but also on intellectual property and technology-led companies," says Mr Sondur Madhan Babu, co-founder and CEO of Mymo Wireless, an indigenous fifth-generation wireless [5G] technology provider. Despite generating a revenue of $2 million last year and expecting to touch $4 million by next year, Mymo found it a challenge to raise venture capital. Mymo which was co-founded by Madhan Babu along with Mr Sondur Lakshmipathi had been earlier licencing its technology to multinationals. It now wants to make its own powerful 5G chipset modules and take on large players like Qualcomm and China's Huawei, but the firm requires a total funding of about $7 million. Mymo says compared to the technology provided by these multinationals its 5G chipset modules would be much cheaper, faster and would consume very less power to run gadgets ranging from phones, smart watches to the Internet of Things (IoT) devices. "The entire technology for the chipset module to operate is ready on the table," says Mr. Madhan Babu.Mr. Murali of SID points out that not every company would succeed as they incubate high-risk and high-reward firms. "But the impact that they can create if successful is tremendous," he says.

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

Manned space mission before 75th I-Day: ISRO chief

If everything goes according to plan, in 40 months, three Indians will be launched into space by an Indian rocket. This is the aim of India's ambitious manned spaceflight mission, Gaganyaan, the contours of which were outlined by Dr. K. Sivan, Chairman of the Indian Space Research Organisation (ISRO). "We will do it before the 75th Independence Day. I will say that we will target six months before that. Sceptics have been doubtful but we are confident. Most of the technologies are already developed," Dr. Sivan told a press conference. He stated that ISRO began work on the manned mission in 2004 and some of these technologies have been demonstrated successfully through various tests — Space Capsule Recovery Experiment, Crew module Atmospheric Re-entry Experiment and Pad Abort Test. In the Independence Day address from the Red Fort, Prime Minister Mr Narendra Modi had announced that an Indian will go to space by 2022 "with the tricolour in his hand." ISRO will use its GSLV Mk-III launch vehicle, which has the necessary payload capability to launch Gaganyaan, Dr. Sivan said. Two unmanned missions will be undertaken prior to sending humans on the first manned flight within 30 months and manned mission in 40 months. "The mission will aim to send a three-person crew to space for a period of 5-7 days. The spacecraft will be placed in a low earth orbit of 300-400km," Dr. Sivan said. The total programme is expected to cost less than ₹ 10,000 crore and will result in significant spinoffs in multiple dimensions, including technology spinoffs in the social sector. "This is very cost-effective when you look at it from a larger perspective, more so when you compare it with similar missions sent by other countries. The benefits which we are going to obtain from them are invaluable," Dr. Jitendra Singh, Minister of State for Space, said.

Launch sequence

A crew module, along with the service module, together called the orbital module weighing seven tonnes, will be mounted atop the GSLV launch vehicle. "The crew will reach low earth orbit in 16 minutes and stay in orbit for 5-7 days. During orbit, the astronauts will carry out micro gravity experiments," Dr. Sivan said. In the return phase, at 120 km above earth, the crew module will separate from the service module and head towards earth in a controlled manner. "It will take 36 minutes to reach the earth," he stated. The crew module will splash down on the Arabian Sea closer to Ahmedabad. However, Dr. Sivan said ISRO is drawing up plans to land the module on the Bay of Bengal or even on land in case of any contingency to "ensure safety of the crew." The mission crew can be either Air Force pilots or even civilians. However, Dr. Sivan said that for the first flight the preference is for pilots. The selection of the crew is expected

to begin shortly as it will take 2-3 years to complete the training. “You can expect an advertisement soon,” Dr. Sivan stated.

National effort

Given the complexity of the programme, Dr. Sivan said, it will truly be a national endeavour with the participation of ISRO, academia, industry as well as other government and private agencies as stake-holders. The project will also result in employment for 15,000 people most of it in the private sector. To accelerate the programme, ISRO is considering seeking collaborations with space agencies from friendly countries with advanced space programmes. The programme once launched, will make India the fourth nation in the world to have a manned space mission. So far only the U.S., Russia and China have launched human space flight missions.

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

BUSINESS

New Kannur airport may boost tourism in Kodagu, Mysuru

Tourism industry in Mysuru and Kodagu is hoping for a surge in tourist footfall — all thanks to Kannur International Airport, a greenfield airport in Kerala, which will be inaugurated for flight operations shortly. Stakeholders here argue that the airport will open a new gateway for tourism development as Kodagu is closer to Kannur and eventually improve connectivity between the two States boosting tourism. According to tour and travel operators here, some section of tourists wishing to visit Mysuru and Madikeri may opt to travel via Kannur airport instead of Bengaluru’s Kempegowda International Airport and the itinerary will alter once the airport becomes operational. Mysuru Travels Association (MTA) has been invited by the authorities for a tour of the greenfield airport. Confirming this to The Hindu, MTA president Mr B.S. Prashanth said tour and travel operators from Mysuru will soon be visiting Kannur to take a look at the facilities at the airport. The airport has been developed under public-private partnership.

Transit route

“Mysuru is the transit route to Madikeri. Once the airport becomes operational, Kodagu may become the new transit zone to Mysuru if tourists prefer flying to Kannur instead of Bengaluru when they plan their vacation to the ‘Land of coffee’. Tourism is booming in Kodagu with scores of homestays and popular hill resorts to unwind,” he said. The new airport will also open new access way to tourists planning to visit Wayanad and Ooty — the other two popular hill stations in south India. The road connectivity from Kannur is said to be good further pushing tourist arrivals to Kodagu. Kannur is around 70 km from Virajpet in Kodagu while the distance from Mysuru is around 120 km. People flying to Kannur need not have to bother about traffic to reach their destinations – Madikeri or Mysuru – unlike from Bengaluru. Reaching the city from Kempegowda International Airport at Devanahalli near Bengaluru and thereafter to Mysuru under bumper-to-bumper traffic on the busy National Highway is a challenge for tourists, who fly into the State capital. “If you provide good and hassle-free connectivity, people will definitely patronise,” the stakeholders claim. “The traffic doubles in weekends with the travelling time stretching up to four hours between Bengaluru and Mysuru. Barring the ghat section, the drive is smooth between Mysuru and Kannur,” he said. The spurt in homestays and luxury resorts in the ‘Land of Coffee’ – Kodagu – has made it one of the busiest hill stations in south India. “There is a little worry as Kodagu is getting commercialised. We don’t want the place to meet the same fate as Ooty which has undergone rapid commercialisation. To some extent, Kodagu should retain its serene identity to be in the competition,” sources in tourism sector here told The Hindu. Some unconfirmed statistics said Kodagu has over 35,000 rooms – at homestays, hotels, and resorts. The number has increased only in recent years.

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

Govt. to seek new bids for Pawan Hans

The government will soon invite fresh bids for 100% stake sale in Pawan Hans by issuing an addendum to the disinvestment document as ONGC is ready to sell its entire stake in the company, an official said. Helicopter services provider Pawan Hans is a joint venture between the government, which holds 51% stake, and state-owned ONGC, which owns the remaining 49% shareholding. Pawans Hans has a fleet of 46 choppers. On April 13, the government had issued the information memorandum for the 51% strategic stake sale in Pawan Hans and had sought Expression of Interest (EoI) from interested bidders by June 18. About half a dozen bidders are believed to have submitted bids. On July 2, ONGC wrote to the government saying its board has resolved that it would prefer to exit Pawan Hans simultaneously with the government. Against this backdrop, the senior government official said an addendum to the existing document would be issued soon, seeking bids for 100% stake in Pawan Hans. "An addendum would be issued to the EoI (Expression of Interest) document issued on April 13. The addendum would state that ONGC has expressed its interest in selling its 49% holding and fresh bids can be put in for the entire 100% stake," the official told PTI.

'Existing bids to stay'

According to the official, existing bids for the government's 51% stake would stay. "We want to give other investors a chance in case they want to bid for the entire 100% stake," the official added. SBI Capital Markets is the transaction adviser for strategic disinvestment of Pawan Hans. The government had first floated an offer to sell its 51% stake in October last year, but in view of subdued response from bidders, the EoI was withdrawn in April. At that time, some investors had suggested that the government and ONGC should sell their stakes together. "Potential investors had then suggested that ONGC's 49% stake too should be sold along with the government's 51%. They feared that ONGC holding 49% could mean government interference in some way," the official said. Later, on April 13, the government came out with a fresh information memorandum for the strategic sale of Pawan Hans wherein bidders need to have a minimum net worth of ¹ 500 crore. Among others, Pawan Hans provides seven helicopters to ONGC for its offshore helicopter requirements such as change of crew and production tasks, including night ambulance services

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

Godrej, U.K.'s GKN Aerospace sign pact for helicopter tanks

Godrej Aerospace, a unit of Godrej & Boyce Mfg. Co. Ltd., has signed an agreement with U.K.-based GKN Aerospace, a premier aerospace supplier, for the manufacture of specialised helicopter fuel tanks. Godrej Aerospace would set up a manufacturing facility for the production of these fuel tanks, the company said in a statement. 'Aiming to be key player' "This partnership will help establish Godrej Aerospace as one of the key players in the market," said Mr Surendra Vaidya, executive vice president and business head, Godrej Aerospace. The rubber fuel tanks are an important consideration in the design and safety of helicopters offering crash resistance and puncture tolerance, as well as overall weight reduction. They follow stringent product requirements in terms of weight, material used, processes and manufacturing skills, according to the statement. Mr Neel Ghai, group head of supply chain, special products group, GKN Aerospace, said the partnership "will help keep us at the forefront of this technology."Godrej Aerospace has been manufacturing and supplying systems for aircraft applications for more than 10 years, the company added in the statement.

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

Kempegowda International 2nd Fastest Growing Airport In The World

The Kempegowda International Airport (KIA) has emerged as the second fastest growing airport in the world in the first half of 2018 in terms of actual growth in the number of passengers. It has recorded 1,58,50,352 flyers during the six-month period. Only Tokyo's Haneda International has bettered KIA's growth. The report was published by RoutesOnline,

a company focussing on the quality and standards of aviation globally. New Delhi's Indira Gandhi International Airport is placed sixth (with a growth of 32,76,183) while Hyderabad is placed 17th in terms of actual growth of passengers (20,97,087 passengers).

Source: https://currentaffairs.adda247.com

Centre moots overseas UDAN

State governments will be able to encourage tourism on preferred international air routes by offering subsidy to domestic airlines for a period of three years. The Ministry of Civil Aviation has prepared a draft scheme document for "UDAN International" and invited comments from stakeholders till September 4. The scheme is designed for State governments that are keen to promote air connectivity on international routes identified by them and for which they are willing to provide subsidy to airlines. As per the draft, a State will identify international routes for which the Airports Authority of India (AAI) will determine a subsidy amount per seat and invite bids from domestic carriers. This will be followed by airlines submitting their proposals, which will include the routes they wish to connect as well as the subsidy needed by them. The airlines will bid on the percentage of flight capacity for which they require financial assistance, provided that the figure doesn't exceed 60% of the flight capacity. The entity that quotes the lowest amount will be awarded subsidy for a particular route. However, the government will grant financial aid only for the actual number of passenger seats that are unsold, even if the airline had sought subsidy for a higher percentage of seating capacity at the time of bidding.

No cap on fares

An airline that is awarded a particular route will have exclusive rights to a subsidy on that route for a period of three years. The key difference between this scheme and the regional connectivity scheme (RCS) for domestic routes is that there is no capping of fares. Under RCS, fares are capped at ₹ 2,500 for one hour of flight on a fixed wing aircraft in order to make air travel affordable, which was why the scheme was called Ude Desh Ka Aam Nagrik (UDAN). "When we look at international connectivity, we are looking at people with disposable incomes looking to undertake air travel for the purpose of tourism," a source said, explaining the rationale behind not capping fares. The financial assistance to an airline will be offered from the International Air Connectivity Fund (IACF), which will be created through the contributions made by the State government. The scheme is meant for domestic airlines. Only fixed wing aircraft with more than 70 seats can be operated under the scheme and airlines will have to conduct a minimum of three and a maximum of seven departures on a given route on three days in a week. The Centre has allowed airlines to enter into a code-sharing arrangement with international and domestic airlines for UDAN international. The AAI may also offer additional discounts at its own discretion such as landing, parking and housing charges at airports owned by it. So far, Assam has proposed to offer ₹ 100 crore per year for flights to Kathmandu, Dhaka, Singapore, Bangkok, Kuala Lumpur and Yangon. Andhra Pradesh has also expressed its keenness to the Civil Aviation Ministry to encourage tourism. At present, the low-cost carrier Air Asia operates daily flights to Kuala Lumpur from Bhubaneswar with a subsidy from the State government on a per-flight basis.

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

Defence Ministry's approval for Rs 46Kcr defence procurement will boost 'Make in India' initiative but what MSMEs will get is not clear: Expert

The Defence Acquisition Council (DAC), chaired by Defence Minister Ms Nirmala Sitharaman approved procurement worth Rs 46,000 crore for the three armed forces to boost Prime Minister Mr Modi 'Make in India' initiative but what will be there for MSMEs is not clear, said an Expert. Speaking to KNN India, Mr Debashis Bandhopadhyay, an Expert on MSMEs, said that the recent release of order for defence platforms to Indian companies is a highly welcome step. However, the Ministry has not made any clarity regarding what exactly will be there for MSMEs in this procurement order. He said, "development of tier 2 and tier 3 supply base of MSMEs was a significant element of defence procurement policy 2016 and if the government does not layout a specific plan for involvement of MSMES, the Defence Make in India initiative will reduce to so called screw driver manufacturing." The defence ministry procurement will include an order for

111 utility helicopters for the Navy at a cost of over Rs 21,000 crore, the release said. This is the first project under the Ministry of Defence's prestigious Strategic Partnership (SP) Model that aims at providing significant fillip to the government's 'Make in India' program. SP Model envisages indigenous manufacturing of major defence platforms by an Indian Strategic Partner, who will collaborate with foreign OEM, acquire niche technologies and set up production facilities in the Country. The DAC also granted approval to a few other proposals amounting to approximately Rs. 24,879.16 crore which include 150 indigenously designed and developed 155 mm Advanced Towed Artillery Gun Systems for the Indian Army (approximate cost of Rs 3,364.78 crore). In addition, approval has been granted to 24 Multi Role Helicopters, which are an integral part of frontline warships and 14 vertically launched short range missile systems, 10 of which will be indigenously designed.

Source: https://knnindia.co.in

Govt. nod for 111 Naval utility choppers

The Defence Acquisition Council (DAC), which met gave formal approval for procurement of 111 Naval Utility Helicopters worth over Rs. 21,000 crore. The Navy had issued the Request for Information (RFI) last year but clarity was awaited on the implementation guidelines under the Strategic Partnership (SP) model. The guidelines were approved recently and are expected to be issued shortly. "This is the first project under the MoD's prestigious Strategic Partnership (SP) Model that aims at providing significant fillip to the Government's 'Make in India' programme," the Defence Ministry said in a statement. SP model envisages indigenous manufacturing of major defence platforms by an Indian Strategic Partner under technology transfer from a foreign Original Equipment Manufacturer (OEM). The DAC decision will be valid for 18 months within which the Navy has to process the deal. The selected manufacturer will then tie up with a suitable Indian partner to manufacture the helicopters in India. For the Army In another deal for the Army, the DAC granted approval for procurement of 150 indigenously developed 155 mm Advanced Towed Artillery Gun Systems (ATAGS), at an approximate cost of Rs. 3,364.78 crore. These guns have been indigenously designed and developed by the Defence Research and Development Organisation (DRDO) in partnership with the private sector. They will be manufactured by production agencies as nominated by the DRDO, the statement said. The DAC also cleared the procurement of 14 Vertically Launched Short Range Missile Systems for the Navy, which will boost the self-defence capability of ships against Anti-Ship Missiles. Of these, 10 systems will be indigenously developed.

Source: https://www.thehindu.com

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