E-NEWS

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CURRENT AFFAIRS

IAF show scorches Lucknow-Agra highway

50th AL 31FP Sukohi engine built by HAL from raw materials handed over to IAF

ISRO to launch Chandrayaan 2 on GSLV MKII in March 2018

Chandrayaan 2 would be launched on a Geosynchronous Satellite Launch Vehicle Mark 2 (GSLV Mk 2) that will blast off from the Satish Dhawan Space Centre in Sriharikota in Andhra Pradesh. Weighing 3,250kg, Chandrayaan (moon vehicle) 2 would have an orbiter, lander and rover and is expected that Chandryan-2 may cost higher than its predecessor Chandryan-1. Earlier, ISRO chief Dr AS Kiran Kumar had indicated a rough time frame for the Chandrayaan 2 mission, by saying "We are targeting first quarter of 2018 for the launch". ISRO will launch a rocket on 28 December that will have not one, but two missions to the Moon. It can be recalled that Chandrayaan 1 was launched on October 22, 2008, and included a probe, impactor and orbiter. Its moon impact probe crash-landed on the lunar surface on November 14, 2008.

Source: https://www.oneindia.com/

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CURRENT AFFAIRS

Defence, aerospace PSUs rapidly turning into super integrators

Large public sector undertakings in the aerospace and defence sector are transforming themselves into super integrators with the private sector providing critical inputs in the changed business environment, according to Dr G Sateesh Reddy, Director General of Missiles and Strategic Systems. Reddy, who serves as Scientific Advisor to the Defence Minister, mentioned how Bharat Dynamics Ltd, a manufacturer of missiles and missile systems, has become one such super integrator. It is currently executing orders of over ₹ 24,000 crore for various missile systems and of this, nearly 80 per cent is being provided by the private sector players.

Transformation

"This shows how the country has transformed over the years from purely being dependant on imports into a manufacturer and integrator of systems indigenously. However, we still depend a lot on imports and the focus has been to reduce the dependency," he said while addressing the students at the convocation of the University of Hyderabad. Referring to HAL, he said, India has managed to indigenously develop the light combat aircraft, and joins a select group of countries to do so. "While some of the developed nations might have taken lesser time (about 15-16 years) to achieve this, we have managed to achieve this feat in about 20 years. Now HAL is in the process of executing an order for over 100 light combat aircraft. It is poised to become a super PSU with inputs from private sector," he said.

30,000 MW addition

Outlining the country's progress in various strategic sectors under the Department of Atomic Energy, Department of Space and Research in the Defence Sector, Reddy said that over the next decade all these would play a very significant role, including the addition of about 30,000 MW from Atomic Energy Division. The industry needs to upgrade from merely developing products to specifications to innovating and developing them for domestic requirements and to cater to markets globally. As a part of this drive, the government is looking for innovation and innovative ideas and laying stress on start-ups. Universities can play a strategic role towards the country's indigenisation, he said. Referring to the Advanced Centre for Research in High Energy Materials established in the University of Hyderabad, he said it is playing an important role in high propulsion systems for missiles. On the immense capabilities that the country has, he highlighted how the BrahMos project, developed through Indo-Russian joint venture, has gone on to become the only supersonic missile system that the world currently has.

Source: http://www.thehindubusinessline.com/

Make In India: Take a look at HAL's helicopters & light combat aircraft Tejas

Hindustan Aeronautics Limited (HAL) is a company which over the past 70 years has manufactured over 4,000 aircrafts, 4,800 aircraft engines and it has serviced over 11,000 planes. CNBC-TV18 has been granted exclusive access to the production lines of HAL's helicopters as well as light combat aircraft also known as Tejas.

Source: http://www.moneycontrol.com/

CSIR Announces Winners of S.S. Bhatnagar Prize for 2017

The Council of Scientific and Industrial Research (CSIR) announced winners of its prestigious Shanti Swarup Bhatnagar Prize for excellence in science and technology for 2017 on September 28.Mr Deepak Thankappan Nair of the Regional Centre for Biotechnology, Faridabad, and Mr Sanjeev Das of the Molecular Oncology Laboratory at the National Institute of Immunology, New Delhi, have won the prize for biological sciences, while Mr G. Naresh Patwari of the Indian Institute of Technology, Bombay, has got the prize for chemical sciences. Mr S. Suresh Babu of Space Physics Laboratory at Vikram Sarabhai Space Centre, Thiruvananthapuram, has bagged it for earth, atmosphere, ocean and planetary sciences.

The other winners are:

- Engineering sciences – Mr Aloke Paul, Department of Materials Engineering, and Mr Neelesh B. Mehta, Department of Electrical Communication, both at Indian Institute of Science, Bengaluru
- Medical sciences – Mr Amit Dutt, Advanced Centre for Treatment, Research and Education in Cancer, Tata Memorial Centre, Navi Mumbai, and Mr Deepak Gaur, School of Biotechnology, Jawaharlal Nehru University

- Physical sciences – Mr Nissim Kanekar, National Centre for Radio Astrophysics, Tata Institute of Fundamental Research, Pune, and Mr D. Vinay Gupta, CSIR National Physical Laboratory, New Delhi

Making the announcement, Mr Girish Sahni, the CSIR director general, said that no suitable candidate could be found for the prize in the mathematical sciences category. The S.S. Bhatnagar prize is one of the most prestigious multidisciplinary science awards in the country. It was instituted in 1958 in honour of the late Shanti Swarup Bhatnagar, the founder of the CSIR labs, and carries a cash component of Rs 5 lakh.

Also read: Two years after Centre's funding directive, CSIR chief says it's almost broke

The awards were announced at a function to mark the 76th Foundation of CSIR. On the occasion, President Mr Ram Nath Kovind also presented the CSIR Young Scientists Awards for 2017. The winners are:

- Mr Sakhya Singha Sen, National Chemical Laboratory, Pune
- Mr Prosenjit Das, Central Mechanical Engineering Research Institute, Durgapur
- Mr Sathravada Balaji, Central Glass and Ceramic Research Institute, Kolkata, and
- Amit Laddi, Central Scientific Instruments Organisation, Chandigarh.

The president also presented the special gold medal of excellence in biological sciences and technology, named after the eminent biologist Mr G.N. Ramachandran, to Kandala Venkata Ramana Chary of the Tata Institute of Fundamental Research, Mumbai.

The CSIR Technology Awards were presented to various labs to encourage multidisciplinary in-house team efforts and external interactions for technology development, transfer and commercialisation. The awardees are:

- Institute of Minerals and Materials Technology
- Central Road Research Institute
- Central Leather Research Institute
- Central Mechanical Engineering Research Institute, and
- Central Institute of Mining and Fuel Research

Source: https://thewire.in/183437/

Aerospace park in Tamil Nadu set to take off

Tamil Nadu's quest for an aerospace park is finally set to turn into a reality, with the foundation stone for the first phase of the park to be laid by chief minister Edappadi K Palaniswami . The aerospace park will house a component park and a testing & design centre in the first two phases, with total investments of well over Rs 500 crore. The first phase of the park, for which 250 acres have been earmarked, will house industrial units making components for the aerospace industry. Developed industrial plots in the range of 2-10 acres have already been allotted to 14-15 units, with each of them investing Rs 10 crore to Rs 20 crore for setting up shop, a state government official told TOI. The State Industries Promotion Corporation of Tamilnadu (Sipcot) has acquired large tracts of land in the Sriperumbudur-Oragadam belt for housing manufacturing units across industrial sectors, besides the aerospace park, said the official. "Sipcot has about 1,500 acres in that belt for allocation of land to industries in the Vallam-Vadagal region near Oragadam," he said. "These will be low-end component suppliers who will in turn supply to larger component suppliers to the global aviation industry. While the employment potential of these units is akin to other engineering manufacturing industries, the take-off of the component park will further boost economic activities in the region, which has not got any new large industrial unit after Yamaha Motor India in 2015," the official added. While the larger aerospace park was planned to house an MRO (maintenance, repair and overhaul) facility for the aviation industry, that may have to wait given the international preferences of the global aviation industry and the domestic taxation hurdles. The region could get a further fillip when the testing & design centre takes off in the second phase. The state government has estimated the initial investment for it to be around Rs 350 crore.

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

IAF show scorches Lucknow-Agra highway

The Indian Air Force put up a spectacular show on the Lucknow-Agra highway as 16 of its frontline aircraft conducted elaborate landing drills on a designated airstrip built on the expressway. The landing and touchdown exercises were

held on the 3-km airstrip built on the expressway near Bangarmau in Unnao, between Lucknow and Kanpur. The IAF's fighter class aircraft, Sukhoi-30, Mirage-2000 and Jaguar enthralled the crowd with their speed and touchdown manoeuvres. The key feature of the event, however, was the debut of the advanced turbo-prop military transport vehicle, the C-130J Super Hercules, on the highway. This was also the first time that the Jaguar participated in a highway landing exercise. The C-130J Super Hercules, which is of U.S. origin, is utilised for special operations and relief work during HADR (Humanitarian Assistance and Disaster Relief) operations in times of humanitarian crisis. They supply relief material during calamities such as floods and earthquakes, while also being used for evacuation. The day's exercise started with a short landing by the massive C-130, which on its landing roll loaded off Garud commandos for ground operations. On disembarking from the C-130, the commandos took up position on either side of the airstrip to cordon it off for the fighter operations. Two sets of three Mirages, five Sukhois and three Jaguars, then carried out touch and go manoeuvres on the expressway. The over two-hour long performance was capped by another short landing by the C-130 as it returned to extricate the Garud commandos.

Alternative airstrip

The military has said the exercise was aimed at checking feasibility of expressways being used as alternative airstrips in case of dire emergencies or non-availability of runway for any reason. "Over the past few years, the IAF has been increasing its efforts to utilise certain straight stretches of National Highways for emergency landings. Such highway stretches are planned to be used in emergencies, if an active airport is not available for some reason. These operations increase the flexibility in the use of Air Power," a defence spokesperson said. This is not the first time the IAF aircraft have landed on a highway. In May 2015, fighter aircraft landed on the Yamuna Expressway for the first time, followed by an elaborate 'touch-and-go' and low-pass manoeuvres of take-offs and landings by six IAF fighter planes — three Mirages and three Sukhois — last November when the expressway was inaugurated by the Mr Akhilesh Yadav government. Several countries like Germany, Sweden, South Korea, Taiwan, Finland, Switzerland, Poland, Singapore, Czechoslovakia and Pakistan have dedicated stretches on their highways and expressways for aircraft to land and take off in emergencies or warlike events, the military said. "This operation has majorly boosted IAF's capability to undertake unhindered operations even during non-availability of standard runways. It has demonstrated the expert flying skills of its fighter and transport aircrew, and the capability of its ground crew in activating such expressway airstrips on short notice," the spokesperson said. The IAF plans such excercises on highway stretches in other parts of India. At 302-km, the Lucknow-Agra Expressway is the longest six-lane highway in the country. The highway cuts short the distance between the state capital and the land of the Taj Mahal, while also reducing journey time to Delhi.

Source: http://www.thehindu.com

T.N. looks to leverage talentpool in aerospace sector

Tamil Nadu has an edge over other States in the country as far as the aeronautical industry is concerned since it has the largest number of aeronautical engineers, Industries Secretary Mr Atulya Misra said. Presenting a brief report about the Aerospace Park being set up at Vadagal near Oragadam, for which the Chief Minister Edappadi Mr K. Palanisami laid the foundation stone, the Industries Secretary said that already several such units were functioning in the State and now a separate industrial estate would be formed at Vadagal. While the domestic aerospace sector is expected to attract an investment of ₹ 20,000 crore over the next decade, an investment of ₹ 6,000 crore is expected to be made in Tamil Nadu, which would result in the creation of job opportunities for one lakh people. "Further, Tamil Nadu has the edge over others since nearly 30% of the total aeronautical engineers available in the world hail from the State," he said. It has been proposed to set up the Aerospace Park in 245 acres at Vadagal, which could be expanded to 600 acres in future. SIPCOT and TIDCO would be spending ₹ 198 crore for developing the industrial plots and 50 aeronautical spare parts companies have shown interest in setting up their units at the park. Out of these 50 units, 20 have made the request for allotment of plots. On the occasion, the Chief Minister handed over land allotment orders to nine units. An official release issued later in the day stated that the park was expected to attract an investment of ₹ 1,000 crore in five years, providing direct employment to 10,000 persons and indirect employment to 25,000 persons. Meanwhile, the TIDEL Park, in association with TIDCO, has also proposed to set up a Computing and Design Centre at a cost of ₹ 350 crore at the park to cater to the designing and research requirements of the industrial units, he added. Industries Minister Mr M.C. Sampath; Micro, Small and Medium Enterprises Minister Mr P. Benjamin; and Chief Secretary Mrs Girija Vaidyanathan were among those who were present at the foundation stone laying function.

Source: http://www.thehindu.com/

Raksha Mantri interacts with industry representatives for energising Make in India in defence sector

Raksha Mantri Smt. Nirmala Sitharaman interacted with CII representatives consisting of Indian companies and foreign OEMS at a round table on Energising 'Make in India' in defence sector. The present government has taken a series of significant policy initiatives, including promulgation of DPP 2016 which gives highest priority to indigenous design and manufacture of defence equipment, introduction of Strategic Partnership model, liberalization of FDI norms and providing a level-playing to private industry. In the round table, a wide range of issues relating to private participation in defence manufacturing, including matters relating to licensing, taxes and duties, speeding up of procurement processes, streamlining of the offsets regime and creation of a tiered defence industrial ecosystem with full integration and skilling of manpower in the MSME sector were discussed. The present government is fully committed to removing all the stumbling blocks and facilitating private participation in defence manufacturing with the objective of bringing high value foreign investment into the defence sector, building indigenous capabilities, fostering absorption and assimilation of technologies, and ensuring self-reliance in meeting the country's defence needs by providing a level playing field. Raksha Mantri issued directions to the team of officers headed by the Defence Secretary for time bound action on key issues raised at the round table, including the resolution of licensing with the Ministry of Home Affairs, tax related matters with the Ministry of Finance, commercialization of technologies developed by DRDO and timely conclusion of procurement proposals.

Source: https://aviationspaceindia.com/

IATA forecasts tripling of air passengers in India by 2036

The International Air Transport Association (IATA) expects 7.8 billion passengers to travel in 2036, a near doubling of the 4 billion air travelers expected to fly this year. The number of passengers in India is expected to grow to 478 million in 2036 from the current 141 million passegers per year. The prediction is based on a 3.6% average Compound Annual Growth Rate (CAGR) noted in the release of the latest update to the association's 20-Year Air Passenger Forecast. "All indicators lead to growing demand for global connectivity. The world needs to prepare for a doubling of passengers in the next 20 years. It's fantastic news for innovation and prosperity, which is driven by air links. It is also a huge challenge for governments and industry to ensure we can successfully meet this essential demand," said Mr Alexandre de Juniac, IATA's Director General and CEO.

Eastward shift, developing market focus

The biggest driver of demand will be the Asia-Pacific region. The region will be the source of more than half the new passengers over the next two decades. The point at which China will displace the United States as the world's largest aviation market (defined as traffic to, from and within the country) has moved two years closer since last year's forecast. We now anticipate this will occur around 2022, through a combination of slightly faster Chinese growth and slightly reduced growth in the US. The UK will fall to fifth place, surpassed by India in 2025, and Indonesia in 2030. Thailand and Turkey will enter the top ten largest markets, while France and Italy will fall in the rankings to 11th and 12th respectively. Risks, opportunities and sustainability A number of risks to the forecast have been identified. Maximizing the potential benefits of aviation growth will depend on current levels of trade liberalization and visa facilitation being maintained. If trade protectionism and travel restrictions are put in place, the benefits of air connectivity will decline as growth could slow to 2.7%, meaning 1.1 billion fewer passenger journeys annually in 2036. Conversely, if moves towards liberalization increase, annual growth could be more than two percentage points faster, leading to a tripling in passengers over the next 20 years. Planning for growth will require partnerships to be strengthened between the aviation industry, communities and governments to expand and modernize infrastructure. Runways, terminals, and ground access to airports will come under increasing strain. Innovative solutions to these challenges, as well as to the baggage and security processes, cargo handling, and other activities, will also be needed. And air traffic management needs urgent reform to cut delays, costs and emissions. "Increasing demand will bring a significant infrastructure challenge. The solution does not lie in more complex processes or building bigger and bigger airports but in harnessing the power of new technology to move activity off-airport, streamline processes and improve efficiency. Through partnerships within the industry and beyond, we are confident that sustainable solutions for continued growth can be found," said Mr de Juniac. The aviation industry has adopted a robust strategy to reduce its environmental impacts, particularly its carbon emissions. "No industry has done more to meet its environmental obligations than aviation. Our tough targets to achieve carbon-neutral growth from 2020 and to cut our CO2 emissions to half-2005 levels by 2050 are backed by a comprehensive strategy. Our immediate aims are to work with governments to increase the production of sustainable aviation fuels, and to deliver air traffic management efficiencies, which promise significant emissions

savings. And from 2020, a Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) will play a major role in meeting our carbon-neutral target," said Mr de Juniac.

Key facts (all figures based on central growth forecast)

Fast-growing markets

The five fastest-growing markets in terms of annual additional passengers in 2036 compared to 2016 will be

· China (921 million new passengers for a total of 1.5 billion)

· US (401 million new passengers for a total of 1.1 billion)

· India (337 million new passengers for a total of 478 million)

· Indonesia (235 million new passengers for a total of 355 million)

· Turkey (119 million new passengers for a total of 196 million).

Many of the fastest-growing markets are achieving a compound growth rate of more than 7.2% per year, meaning their market will double in size each decade. Most of these markets are in Africa, including: Sierra Leone, Benin, Mali, Rwanda, Togo, Uganda, Zambia, Senegal, Ethiopia, Ivory Coast, Tanzania, Malawi, Chad, Gambia and Mozambique. Regional growth Routes to, from and within Asia-Pacific will see an extra 2.1 billion annual passengers by 2036, for an overall market size of 3.5 billion. Its annual average growth rate of 4.6% will be the third-highest, behind Africa and the Middle East.

The North American region will grow by 2.3% annually and in 2036 will carry a total of 1.2 billion passengers, an additional 452 million passengers per year. Europe will also grow at 2.3%, and will add an additional 550 million passengers a year. The total market will be 1.5 billion passengers.

Latin American markets will grow by 4.2%, serving a total of 757 million passengers, an additional 421 million passengers annually compared to today. The Middle East will grow strongly (5.0%) and will see an extra 322 million passengers a year on routes to, from and within the region by 2036. The total market size will be 517 million passengers.

Source: https://aviationspaceindia.com/

P&WC to Provide IndiGo with Fleet Management™ Program Maintenance

Pratt & Whitney Canada (P&WC) announced that it has signed a Fleet Management™ Program (FMP®) maintenance contract with IndiGo for PW127M engines that will power the airline's new fleet of ATR72-600 aircraft serving regional routes in India. The contract, signed in August, will be in place for 10 years from the date of each engine's entry into service and can be extended thereafter. P&WC is a subsidiary of United Technologies Corp. (NYSE:UTX). "This FMP will provide IndiGo with hands-on support as the engines progressively enter into service on the airline's new ATR72-600 fleet," says Mr Frédéric Lefebvre, Vice President, Regional Airlines, P&WC. "IndiGo also chose to equip each of its new aircraft with our FAST™ (Flight, Acquisition, Storage and Transmission) prognostics solution – including the newly certified propeller vibration trend monitoring capability. FAST is helping regional airlines around the world maximize aircraft availability, achieve compliance with their maintenance requirements and optimize their maintenance scheduling." Tailored specifically to IndiGo, the FMP plan will provide customized support to meet the company's technical and commercial needs. P&WC's FMP plan is a flexible, high-value engine management solution that helps lock in lower operating costs and simplifies fleet operations management. It also serves as a financial planning tool that supports efficient cash flow management while allowing airlines to focus on their core business of passenger and cargo transportation. "IndiGo is a key operator for P&WC in India and the Asia Pacific market in general," says Mr Lefebvre. "This FMP agreement allows us to take a larger profile in India's growing aviation industry. We are committed to making the debut of our PW127M engine with IndiGo's fleet a seamless process, giving them the outstanding maintenance solutions for which our P&WC FMP team is known." P&WC will be at ERA, booth B33/34. Interested operators are invited to drop by the booth to speak with a marketing or customer service representative.

Source: https://aviationspaceindia.com/

50th AL 31FP Sukohi engine built by HAL from raw materials handed over to IAF

The 50th AL31FP engine, manufactured from raw materials by Sukhoi Engine Division of HAL (Koraput) has been handed over to IAF in Delhi yesterday as part of celebrations of 70th year of India Russia diplomatic relationship."The AL31FP engine powers Su30 MKI and is manufactured from raw material stage. All the components, including heavy forgings are manufactured at HAL", said Mr. T. Suvarna Raju, CMD, HAL. He handed over the documents related to the 50th Raw Material Phase Engine of Su-30MKI to Air Marshal S.B. Deo, VCAS. A Coffee Table Book was also released on this occasion by Mr. A. K. Gupta, Secretary (DP) to commemorate 70 years of cooperation between HAL and Russian companies to protect the Indian sky. Speaking on the occasion Mr. Gupta pointed out the whole hearted support India has been receiving for the Russian platforms and said such a support is important in strengthening the bilateral ties. About HAL Koraput: The engine division is ensconced in the valleys of Koraput region in Orissa. It was set up to manufacture turbojet engines for the MiG 21FL. The first assignment taken up by the Division was to manufacture R11-F2 turbojet engine for MiG 21FL aircraft. Subsequently, the Division took up manufacturing of R11 series engines of MiG 21FL and MiG 21M aircraft, R25 series engines of MiG 21BIS aircraft, R29B engines for MiG27M aircraft and RD33 series engines for MiG29 aircraft. The Division is currently engaged in the overhaul of R25, R29B and RD33 engines. In 2004 the Sukhoi Engine Division was established and it has started manufacturing and subsequently overhauling of AL31FP engines for SU30MKI aircraft. Till date the Division has manufactured nearly 1675 engines and overhauled 7730 engines, which includes R11, R25, R29B, RD33 and AL31FP engines. About AL31FP Engine: It is a twin spool, axial flow, low bypass turbo fan engine incorporating After Burner System, variable area Jet Nozzle with thrust vectoring, air-to-air heat exchanger, anti-surge system. A specific feature of AL-31FP is an axi-symmetric vectoring nozzle with a thrust vector angle of ±15° in the vertical plane providing super maneuverability of the aircraft. The vectoring nozzle control is integrated with the engine control system. The AL-31FP engines ensure stable operation in all available evolutions of the aircraft in super maneuverability modes. Till date 357 engines are manufactured which includes engines of phase I to phase V.

Source: https://aviationspaceindia.com/

Airports to have bomb detection and disposal squads

Bomb detection and disposal squads will now be available at airports across India as part of efforts to strengthen security that also include upgradation of baggage screening systems to bring them on a par with global standards. The Bureau of Civil Aviation Security (BCAS) has simplified rules to make this possible, officials said. "The new rules will ensure availability of BDDS (bomb detection and disposal squads) at all airports in India. The new baggage screening system will be in line with the best available globally," said a senior BCAS official, who did not want to be identified. "The new screening system will provide a view of the luggage from two sides, leaving little scope for any doubts in the minds of security personnel." This comes after the detection of a large number of power banks in the baggage at various airports in the country following an alert by the Intelligence Bureau that terrorists could try to trigger a blast inside an airplane in the country.

Source: http://www.aviationindia.net/

With an eye on Mopa, govt to start aviation courses in Pernem, Sattari ITIs

In order to help Goan youth take up jobs that would arise at the upcoming international airport at Mopa, the state government will start skill development and entrepreneurship training courses in ITIs of Pernem and Sattari. Coming out with this information, Craftsmen Training Minister Mr Vishwajit Rane said that the new courses which he intends to introduce in ITIs of Pernem and Sattari will be related to civil aviation, ground handling and allied sector considering employment opportunities that would arise at the new international airport at Mopa. "I along with the officials of the department will soon meet the chairman of GMR Group, a company which is developing the greenfield airport project, and its technical team and discuss about the manpower that would be required for the airport at Mopa," he said, adding that the courses will be introduced from next academic year. Stating that as far as Craftsmen Training is concerned, he has realised that new approach is needed, the Minister emphasised on introducing new courses in ITIs as per the requirement of the global industry. "We will not restrict only to old courses like electricians, plumbers, fitters, but focus on new trades which will create opportunities for Goan youth to work in Dubai and other countries on cruise ships, merchant navy ships besides export-oriented industries," Rane said. He also informed that he has asked the director of Craftsmen Training department to identify and prepare a list of such new courses and submit it to him in next 30 days, adding that everything in this regard will be finalised in next six months.

Source: http://www.aviationindia.net/

TECHNOLOGY

ISRO to launch 31 satellites in December: Kiran Kumar

The Indian Space Research Organisation (ISRO) will launch 31 satellites, including the Cartosat-2 series, in the second week of December. ISRO Chairman Mr A S Kiran kumar said that the PSLV will carry the satellites from Sriharikota. “Of the 31 satellites, 28 belong to other countries,” he said. Referring to the IRNSS launch failure, he said a glitch led to it. “The satellites couldn’t be placed in the orbit due to many external and natural causes, more than technical problem. But this failure won’t affect future launches,” he maintained. The remote sensing satellite Cartosat offers multiple services. The imagery sent by the satellite will be useful for cartographic applications, coastal land use and regulation, utility management like road network monitoring, water distribution, creation of land use maps, change detection to bring out geographical and man-made features and various other such data. The ISRO chairman said private players in space research will have more opportunities in coming days. “From building satellites, launch vehicles, software and hardware many opportunities will emerge,” he said. He said allowing private players in making launch vehicles was a sensitive issue. “So many approvals are needed for this. But we can say that by 2020 we can expect private companies in the sector. The private participation will further expand the sector,” he added. He said startups were being encouraged to play bigger roles. “A startup called Bellatrix has been given the contract of making micro thrusters. We will provide them the necessary support. We are also encouraging startups to come up with software that will help us,” he said.

Chandrayan-2 in March

Kiran Kumar said Chandrayan-2 would be launched in March 2018. A final testing of lander, rover and other equipment is ongoing following which the unit will be assembled. Adityayana-1 will be launched in 2019 to study the Sun, he said.

Source: http://m.deccanherald.com/

Boeing acquires major drone, aerospace developer with focus on more autonomy

The American multinational corporation known as the Boeing Company has just made some very interesting plans, according to CNN Money. The aerospace corporation, founded in 1916, is planning on purchasing Aurora Flight Sciences Corporation, which is a world-class developer and manufacturer of advanced automated drones and aerospace platforms. Mr Greg Hyslop, Chief Technology Officer and senior Vice President of Boeing Engineering, Test & Technology, recently commented on the acquisition and what’s to come in the future in a statement. ”The combined strength and innovation of our teams will advance the development of autonomy for our commercial and military systems,” said Mr Hyslop. ”Together, these talented teams will open new markets with transformational technologies.” This acquisition confirms that Boeing is truly stepping up its investment in autonomous technology, and it will certainly have a foothold in future trends with aviation technology. Officials at the corporation had a lot of positive things to say about Aurora designing fully autonomous flight systems, Been suggesting that the company could be trying to incorporate artificial intelligence into the way its planes are being piloted. Mr Hyslop, however, was not providing details as to how exactly Aurora’s technologies would be integrated into Boeing’s business. Commercial aviation technology is something that Boeing has yet to really delve into, until now. Up until this point, the manufacturer had been focusing on an autonomous submarine as well as some drone projects. Back in June, the company said would be looking to automation for commercial aircraft. All of this news about acquiring Aurora comes just one week after Boeing set up an office for its next-generation passenger airliner, often referred to as the 797. This would be the first plane to take advantage of the company’s research into sensors and automated systems. It’s currently unclear whether or not Aurora’s technology is going to appear on the 797 aircraft. “It’s hard to predict where the future is going,” Hyslop said in a call with reporters earlier this week. “But I think we know where the vector is pointed and we want to be ready as the technology matures and take full advantage of that in our products.”

Source: https://www.digitaltrends.com/

New material may help create hypersonic aircraft

Scientists have identified an extremely lightweight material that can withstand a high temperature and stress, a step towards developing hypersonic aircraft able to travel at five to 10 times the speed of sound. The study by researchers at NASA and Binghamton University in the US, could lead to a drastic decrease in flight times. There are currently quite a few obstacles when it comes to building these super planes, said Binghamton University Associate Professor

Changhong Ke. The first of which is finding a material that can hold up to hypersonic travel. “Our study used what are called boron nitride nanotubes (BNNTs). NASA currently owns one of the few facilities in the world able to produce quality BNNTs,” said Mr Ke. Typically, carbon nanotubes have been used in planes for their strength - they are stronger than steel - and their ability to conduct heat, researchers said. However, BNNTs are the wave of the future when it comes to air travel, they said. “While carbon nanotubes can stay stable at temperatures up to 400 degrees Celsius, our study found that BNNTs can withstand up to 900 degrees Celsius,” said Mr Ke. “BNNTs are also able to handle high amounts of stress and are extremely lightweight,” Mr Ke said. Withstanding high temperatures is an important requirement for any material meant to build the world’s next super planes, according to the study published in the journal Scientific Reports. However, Mr Ke noted that the material has to be able to maintain both structural and mechanical properties in an oxygen environment. Researchers said that while the study has brought new lag .. Researchers said that while the study has brought new light to the strength and stability of BNNTs, their use on planes may not be a reality for another five to 10 years. “Right now, BNNTs cost about USD 1,000 per gramme. It would be impractical to use a product that expensive,” said Ke. However, researchers noted that carbon nanotubes were about the same price 20 years ago. As more studies indicated the usefulness of carbon nanotubes, the production rates increased and prices went down to the current rate, between USD 10 and USD 20 per gramme. Mr Ke sees the same fate coming down the line for BNNTs.

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

Tejas jets to get French-made radars

Thales, a French multinational that makes aerospace and defence equipment, has flight-tested an active array radar built specifically for Tejas, the indigenously built light combat aircraft. The radar is based on the company’s successful RBE2 radar installed on Rafale fighter jets, 36 of which India is buying from Dassault. It meets the specific requirements of the Hindustan Aeronautics Ltd. to equip the 80 Tejas-Mk1A aircraft under development. “In just four months, thanks to our solid, proven experience with the RBE2, we’ve been able to carry out successful flights to test the performance of the key features of the radar we’re offering for the Tejas Mk1A light fighter,” Mr Philippe Duhamel, executive vice-president, Defence Mission Systems, Mr Thales, said in a statement. The tests were conducted during summer this year at the Cazaux air base in France, on a test-bench aircraft, focussed on metrological analyses of the radar performance, Mr Thales said. “These test flights proved that the radar is fully operational and perfectly corresponds to the specific requirements of the HAL for its combat and air-superiority missions. It is therefore ready and able to adapt to the tight schedule imposed by the Mk1A LCA,” the statement said. A Tejas Mk-1A variant with specific improvements is under development and HAL had earlier this year floated a tender for Advanced Electronically Scanned Array (AESA) radar and Self-Protection Jammer. The Defence Ministry has already approved 83 Mk1A for the Air Force, in addition to the 40 basic variants.

Source: http://www.thehindu.com/

NASA tests rocket designed to get humans to Mars

NASA has test-fired an astonishingly powerful engine which will one day propel a manned mission all the way to Mars. The American space agency tested the RS-25 rocket engine at the Stennis Space Center in Mississippi yesterday. This gigantic booster spat out vast clouds of smoke as it fired up, sending thick smog billowing into the sky. The super-powerful engine will eventually be fitted to a new NASA rocket called the Space Launch System (SLS.) Four of the boosters will be used to power this rocket that’s designed to “send humans further into deep space than they have ever travelled, including on the journey to Mars.” This pioneering engine is the most powerful booster in the world and will be used during the first mission of the Orion spacecraft in 2018, which will blast into space aboard the SLS. During this mission, the Space Launch System will “fly farther than any spacecraft built for humans has ever flown.” “This is a mission that truly will do what hasn’t been done and learn what isn’t known,” said Mr Mike Sarafin, mission manager at NASA Headquarters in Washington. “It will blaze a trail that people will follow on the next Orion flight, pushing the edges of the envelope to prepare for that mission.” It’s hoped that the lessons learned from the Orion flights will help to pave the way for a journey to Mars.

Source: http://nypost.com/

ISRO to launch Cartosat 2 sat with 30 nano sats in mid-December

After the unsuccessful launch of navigation satellite IRNSS-1H, Indian Space Research Organisation (ISRO) is gearing up to launch a remote sensing satellite of Cartosat-2 series along with 30 nano satellites of foreign countries in the second half of December. Vikram Sarabhai Space Centre (VSSC) director Dr K Sivan said, “ISRO will be busy in launching a series of satellites from December onwards. We are targeting to launch Cartosat along with 30 nano satellites of foreign countries in the second half of December.” He said, “The replacement satellite for IRNSS-1A (the first navigation satellite whose three atomic clocks, meant to provide precise locational data, had stopped working last year) will be launched soon thereafter. Both these launches will be from the first launch pad at Sriharikota as the second launch pad will be busy in launching three GSLV rockets, including the Chandrayaan-2 mission in March. “If for any reason, Cartosat launch is delayed in December, it will also stall the launch of replacement satellite IRNSS-1I as both these launches have been planned from the first launch pad.” The three GSLV launches, which will involve two GSLV Mk II and one GSLV Mk III (ISRO’s fat boy), will be from the second launch pad at Sriharikota. Instead of PSLV (which was used for launching Chandrayaan-1 mission in 2008), ISRO is using GSLV Mk II for the second lunar mission as the payload is heavier this time (combined launch mass 3,250 kg). The payload will constitute orbiter, lander and rover. Dr Sivan said, “After the IRNSS-1H satellite failure, corrective measures will be taken in all rockets before the launches.” Though the inquiry into reasons for the heat shield glitch is still going on, “initial findings suggested a defect in the pyro elements of the rocket which deal with the stage separation mechanism”. The VSSC director said the committee probing the failure of IRNSS-1H launch will submit its investigation report much before the upcoming launches. He said the faulty satellite stuck inside the heat shield is still orbiting the outer space and is “unlikely to fall into the Pacific Ocean anytime soon”. On August 31, PSLV-C39 could not deliver the 1.4-tonne IRNSS-1H in the geo orbit as its heat shield did not get separated minutes after the rocket’s lift-off from Sriharikota.

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

India’s Space mission to Moon ‘Chandrayaan- II’ in 2018

The Union Minister of State (Independent Charge) of the Ministry of Development of North Eastern Region (DoNER), MoS PMO, Personnel, Public Grievances & Pensions, Atomic Energy and Space, Dr Jitendra Singh has said that India’s Space Mission to Moon, “Chandrayaan-II”, will take place in 2018, most likely in the first quarter of the year. Addressing the inaugural session of the 5-day Asian Conference on Remote Sensing here today, Dr Jitendra Singh said that India has today emerged as the world’s frontline nation in the field of Space Technology. This, he said, is in itself a glorious vindication of the dream seen by the founding fathers of India’s Space Programme, like Vikram Sarabhai and Satish Dhawan. Giving credit to the Prime Minister Shri Narendra Modi for giving fresh impetus to Space Research, Dr Jitendra Singh said, it was during the last three years that India could launch a South Asian Satellite which would be also providing inputs and benefits to the neighbouring countries. In addition, he said, the biggest achievement in the last over three years is that the Prime Minister personally intervened to arrange a brainstorming of Space Scientists with each of the different Ministries and Departments in Government of India to promote the application of Space Technology in infrastructure and development works. In this context, he referred to widespread application of Space Technology in carrying out the Urban Development programmes, including Smart City programmes, the use of Space Technology for geo-tagging of MGNREGA and the assistance from ISRO for the manning of Railway crossings. Chairman ISRO, Shri Kiran Kumar, who was the Guest of Honour on the occasion, spoke about the various achievements of India’s Space capability in the field of Disaster Management. Veteran Space Scientist and President of the Indian Association of Remote Sensing, Dr Shailesh Nayak also spoke on the occasion. At the event, awards were presented to outstanding Space scientists under different categories. The 5-day conference is being attended by over 500 eminent foreign delegates and some of the world’s most distinguished faculty in the field of Space Science.

Source: https://aviationspaceindia.com/

BUSINESS

Stalled AWACS deals hit Air Force

If airborne warning and control systems (AWACS) are considered “eyes in the sky”, India is battling debilitating cataract in this military arena. Even as China and Pakistan induct more such force-multipliers, the IAF is faced with a double whammy due to a deadlocked deal with Israel and Russia as well as painfully slow progress in indigenous efforts. IAF currently has only three AWACS, with Israeli Phalcon radar systems mounted on Russian IL-76 heavy-lift

aircraft, which were inducted in 2009-2011 under a $1.1 billion deal inked in 2004. The force also inducted an indigenous AEW&C (airborne early-warning and control system) christened “Netra” in February this year, about seven years behind schedule. Moreover, while Netra has a normal radar range of just 250-km with 240-degree coverage, AWACS like the Phalcon have an over 400-km range with 360-degree coverage. Such airborne surveillance systems play a critical role in modern-day warfare because they can detect incoming fighters, drones and cruise missiles much before ground based radars as well as direct air defence fighters during combat operations with enemy jets. So, it’s no wonder both Pakistan and China have made them a top military priority. Pakistan now has seven such platforms, with the Chinese Karakoram Eagle ZDK-03 AWACS being the latest inductions. “They are on course to get three more. China, in turn, has well over 20 AWACS, including the latest KJ-500s,” said a source. India, in contrast, continues to flounder. The case for two more “follow-on” Phalcon AWACS, in the tripartite deal with Russia and Israel, remains stuck due to sharp cost escalation, as was earlier reported by TOI. Sources say the government is ready to pay only about $800 million for the two AWACS, and not the $1.3 billion being demanded by the original equipment manufacturers. “Russia has majorly jacked up the prices for the IL-76s, which is unacceptable to the government,” said a source. On the indigenous front, the two aircraft under the AWACS-India project will be ready only by 2024-2025 at the earliest. Though the defence ministry approved the Rs 5,113 crore project in March 2015, under which 360-degree coverage indigenous AESA (active electronically scanned array) radars are to be mounted on Airbus A-330 wide-body jets, the contract is yet to be inked. Sources say it will take 80 months to operationalise the two AWACS once the contract is inked sometime next year. Six more AWACS are likely to be ordered once the project takes concrete shape, with structural and electrical changes to the A-330 aircraft to fit the radar domes on the top. The AWACS-India project, with 80:20 cost sharing between IAF and DRDO, is far more ambitious than the Rs 2,425 crore project for the three Netra aircraft. Under it, indigenous 240-degree coverage radars have been fitted on three smaller Brazilian Embraer-145 jets. The first Netra is now undergoing operational test-runs at the Bhatinda airbase after initial operational clearance, while the second is awaiting final operational clearance. The third will be retained by the DRDO for R&D work. The Embraer deal, of course, is also engulfed in a kickbacks scandal after allegations surfaced last year that the Brazilian aviation major had allegedly hired a UK-based agent and paid commissions to swing the $208 million deal with India in 2008, as was then reported by TOI.

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

Global commercial aircraft market projected to rise $330 billion by 2022

The commercial aircraft market is driven by a number of factors such as skyrocketing passenger traffic, aviation network infrastructural improvements, development of quieter and fuel-efficient aircraft, and government initiatives taken by several national governments encouraging the domestic commercial aircraft market. Some of these include liberalized taxation regions, R&D investments, and measures that aid the indigenous manufacturing of commercial aircraft. The commercial aircraft market is projected to witness a modest CAGR of 4.1% for the period from 2017 to 2022. Narrow body aircraft are the most popular in the commercial aircraft market and had the largest revenue share in the year 2017. Narrow body aircraft are poised to be the biggest beneficiary in the shift away from wide-body aircraft that carry more passengers at the cost of fuel efficiency. The narrow body aircraft segment is expected to be worth just under US$ 170 billion in end 2022, making it well-worth the while of all major stakeholders in the commercial aircraft market. Wide-body aircrafts have lost a large part of their appeal in the commercial aircraft market and are anticipated to lose further BPS over the course of the forecast period. However, the APEJ region could be the bright spot in the wide-body aircraft market as the region is predicted to record a CAGR of just under 5%. APEJ, riding on the shoulders of exploding air passenger traffic in China and India should require a large number of wide-body aircrafts throughout the duration of the five-year study and companies must be in a position to cater to this demand. Regional jets occupy the third slot in the commercial aircraft market and have a revenue share of approx. a sixth by product type. Key stakeholders in the commercial aircraft market are recommended to focus their attention on the North America and Europe regional jets market as both are estimated to push past a value of US$ 14 billion by the end of 2022. A higher CAGR is likely to be in Europe over North America during this time. The turboprop aircraft segment is a comparative niche in the commercial aircraft market and it accounts for minimal revenue share. Nonetheless, an absolute dollar opportunity of over US$ 7 billion is waiting to be tapped in the turboprop segment of the commercial aircraft market from 2017 to 2022. North America holds the greatest chunk of the turboprop aircraft segment with a contribution of almost a third of the commercial aircraft market. It can be safely assumed that the future of the commercial aircraft market lies in the APEJ region as the fundamentals of this region are quite strong. Booming economic growth, a rising middle class in China and India demanding greater air connectivity and travel options for business and leisure, coupled with government initiatives encouraging domestic manufacturing should ensure that this region remains paramount in commercial aircraft market.

Profiled companies in the report are Avions de transport regional, Pilatus Aircraft Ltd., Piaggio Aero Industries SpA, General Dynamics Corporation, Dassault Aviation SA, Textron, Bombardier, Embraer SA, Airbus SE, and The Boeing Co.

Source: https://eturbonews.com/

French defence giant Safran keen to supply engines to HAL for indigenous helicopter

Safran Helicopter Engines, manufacturer of gas-turbine engines for both civil and military helicopters, is developing a new family of high-power engines called Aneto. The French manufacturer is looking to supply its engines to Hindustan Aeronautics Limited (HAL), which had floated a global request for information (RFI) for the purchase of engines to power its home-made multi-role helicopter. Developed as part of the Safran's research and development roadmap, the Aneto family of engines features several models covering 2,500-3,000 shp (shaft horsepower) power range, known as heavy helicopter engines. HAL's RFI had stipulated that the State-owned firm is looking for 3,000shp-class twin engines and is aiming to fast-track development of its indigenous helicopter. HAL is engaged in the design and development of rotary wing aircraft with state-of-the-art technologies. The company intends to purchase the engine under a technology-transfer agreement. HAL aims to develop the 12tonne-class Indian Multi-Role Helicopter (IMRH), which will be designed to offer a service ceiling of around 20,000 feet, 3,500-kg payload with a seating capacity of 24. The aircraft will be able to assist in combat search-and-rescue, tactical troop transport, casualty evacuation, sling-load transportation, anti-surface operations and off-shore operations, among other activities. The proposed IMRH is to be powered by twin engines and equipped with an automatic flight-control system. Initially, the indigenous helicopters will be aimed at the Indian Air Force, while a naval variant also is on the cards. The new Aneto engines by Safran boast of an exceptional power-to-volume ratio, offering 25 per cent more power compared with existing engines of the same volume. The company has said this will provide increased capabilities, especially for offshore, search-and-rescue or military transport missions. HAL's RFI for the "supply of suitable turbo shaft engine for IMRH programme" has also evinced interest from other foreign OEMs. Sources indicated that the RFI relates to turbo shaft engines, assistance with development of a blade-folding system and external reviews of the 12-tonne rotorcraft's landing gear and transmission. Design and development of the landing gear will also be undertaken by HAL's Rotary Wing Research Design Centre. The duration of the design review period is six years.

Source: http://www.thehindubusinessline.com/

Foundation for Dassault-Reliance aerospace park to be laid this week

French aircraft manufacturer Dassault Aviation and Anil Ambani-promoted Reliance Aerospace Ltd will this week lay the foundation stone of an aerospace park which will manufacture aircraft components for the Indian and the global market. French Defence Minister Florence Parlay, top officials of Dassualt Aviation and Chairman of Reliance Group Anil D Ambani are scheduled to attend the event in Nagpur, an official said. The Dhirubhai Ambani Aerospace Park (DAAP) is being set up in the city's Mihaan Special Economic Zone. The joint venture is being set up as part of Dassault's offset obligations for the Rs. 58,000 crore deal to supply 36 Rafale fighter jets to India. The deal was signed in September last year. Spread over 289 acres, DAAP is touted to be the largest greenfield aerospace project in India. The joint venture will be the leading entity to execute the Rafale offset programme. "The aerospace park will have assembly lines and manufacturing facilities for fixed wing aircraft and will produce aircraft components for global markets," said the official. The Dassault–Reliance partnership will bring in not only high level transfer of technology but also help develop the eco-system of the domestic aerospace sector and feed into the global supply chain, he said. A large number of Indian MSMEs are also expected to set up facilities at DAAP. The Dassault–Reliance JV has already shortlisted large number of vendors, mostly small-and medium-size enterprises, to be part of the supply chain at DAAP. "Production at the facility is expected to start in the first quarter of 2018, phase one will be fully operational by the third quarter of 2018," said the official who wished not to be named. The Rafale combat aircraft will come with various India-specific modifications.

Source: http://www.thehindubusinessline.com/

What India's Largest Aerospace Company With $10-Billion Orders Makes

State-owned fighter jet maker Hindustan Aeronautics Ltd. has filed to launch an initial public offering as the government looks to sell 10.8 percent stake in India's largest aerospace company. It plans to raise up to Rs 1,500 crore in the share sale. HAL is crucial to Prime Minister Narendra Modi's plan to cut dependence on defence imports. The government is pushing local manufacturing by encouraging private companies to tie up with overseas manufacturers. Orders could cross $200-billion over the next decade, according to research and brokerage firm Bernstein.

Here's what HAL makes...

$10-Billion Orders

HAL had an order book of Rs 63,333 crore at the end of July, mostly for 35 Sukhoi Su-30 MKIs and 73 Dhruv Advanced Light Helicopters, according to its draft red herring prospectus. These are to be delivered over the next three years.

CURRENT ORDERS

- Sukhoi Su 30 fighter aircraft.
- Indigenous light combat aircraft.
- Intermediate jet trainer.
- Advanced light helicopter.
- Dornier 228 turboprop.
- Cheetal helicopter.
- AL-31FP engine (for Sukhoi 30s).
- Jaguar fighter jet upgrade.
- Mirage fighter jet upgrade.

FUTURE PROJECTS

- **Unmanned aerial vehicles:** HAL designed and developed an 8-kilogram mini-drone for the armed forces. It also plans to offer larger UAVs with the Rustom-II medium-altitude, long-endurance UAV, being jointly developed by the Aeronautical Development Establishment, a research arm of the Defence Research and Development Organisation.
- **Multi-role helicopters:** HAL is developing a multi-role helicopter—used for assault and logistics—for the civilian market.
- **Fifth generation fighter aircraft:** It has has struck a joint venture with a Russian company for design and development of the fifth-generation fighter aircraft after Sukhoi.

Operations

The company's operations are organised into five categories...

- Bangalore Complex
- MiG Complex
- Helicopter Complex
- Accessories Complex
- Design Complex

Together, these include 20 production facilities and 11 R&D centres across India.

Sukhoi Project Ends In Three Years

HAL's biggest project of executing the Sukhoi order, which contributed 44 percent to its revenue in the year to March, is nearing completion, according to its draft red herring prospectus. The company has already supplied about 190 of the 222 fighter jets and the rest will be delivered in three years. The company makes the Sukhois at its Nasik facility.

Tejas: The Next Big Bet

HAL is making the light combat aircraft Tejas, which got initial operational clearance in December 2013 and awaits the final nod. The Indian Air Force accepted two Tejas aircraft in March and April last year. HAL has set up infrastructure to produce eight planes a year and is looking to double the output.**I**t's also developing a drooped-nose version to meet the Navy's demand, along with the landing gear and equipment required for operations from an aircraft carrier.

Source: https://www.bloombergquint.com/

Dassault to Invest 100 Million Euros in Indian Venture with Reliance

French major Dassault Aviation will invest over 100 million euros in a joint venture with Reliance Aerospace to manufacture aircraft components as part of the 'offset obligation' connected to the purchase of 36 Rafale fighter jets from France.

The Dassault-Reliance joint venture represents the largest ever foreign direct investment in the defence sector in India, the companies said in a joint statement. The foundation laying ceremony of the Dassault Reliance Aerospace Limited (DRAL) manufacturing facility was held today at the Dhirubhai Ambani Aerospace Park in Mihan SEZ near the Nagpur airport. The foundation stone was laid in the presence of Florence Parly, Minister of Armed Forces of the French Republic, Reliance Group Chairman Mr Anil Ambani, Union Minister Mr Nitin Gadkari, Maharashtra Chief Minister Mr Devendra Fadnavis and Ambassador of France to India, Mr Alexandre Ziegler. Mrs Kokilaben Ambani, the Ambani family matriarch, Mrs Tina Ambani, wife of Anil Ambani and his son Mr Anmol were also present. DRAL will manufacture several components of the offset obligation connected to the purchase of 36 Rafale Fighters from France, signed between the two governments in September 2016, Mr Ambani said. It will manufacture components for the Legacy Falcon 2000 series of civil jets manufactured by Dassault Aviation and will become part of its global supply chain. "These first steps are expected to be achieved in the coming years, leading to the possible setting up of the final assembly of Rafale and Falcon aircraft in India," a DRAL official said. This is for the first time that a business jet will be manufactured in India, the official said. The DRAL facility will train skilled workers in aviation assembly and integration, and lead to major employment generation in Nagpur and surrounding areas, the official added. It will also attract and house an organic ecosystem of over 200 MSMEs to secure the component and avionics manufacturing needs of Rafale and Falcon jets. Dassault Aviation Chairman Eric Trappier said the firm is firmly committed to implementing Prime Minister Narendra Modi's 'Make In India' programme. "This development (DRAL) gives the 65 year-long strong association of Dassault Aviation in India a new momentum and the will of future manufacturing developments," he said. "The Reliance-Dassault partnership will bring high levels of technology transfer and make India a major supplier in the global aviation supply chain," Mr Ambani said. Dassault and Reliance will fully support 'Make in India' and 'Skill India' missions and enhance India's pursuit of self-sufficiency in the aerospace sector, he added. Mr Ambani also thanked Mr Gadkari and Mr Fadnavis for their "strong and consistent support" for the project. The Dhirubhai Ambani Aerospace Park, spread over 289 acres, will be the largest Greenfield aerospace park in India with a capital investment of over Rs. 6,500 crore. It is being developed in two phases. Phase one production is expected to start next year. It will be home to DRAL- the 51:49 joint venture of Reliance Aerostructure and Dassault Aviation. Reliance Group will set up assembly lines and manufacturing facilities of fixed wing aircraft aero structure for commercial transport aircraft and helicopters for both defence and commercial use. The park will also house ancillary and component manufacturing units to support after-sales requirements.

Source: https://www.ndtv.com/

India, France Discuss Ways To Ramp Up Strategic Ties

India and France today held wide-ranging talks aimed at further boosting defence and security ties, with a focus on co-development of military platforms, and enhancing cooperation in the maritime sphere. Defence Minister Mrs Nirmala Sitharaman and her French counterpart Florence Parly deliberated on a host of key issues, including the regional security situation, transfer of critical technology for various defence projects and ways to ramp up overall strategic ties, an official said. All aspects of defence and security cooperation between the two countries as well as ways to enhance maritime cooperation were discussed in the meeting, the official added. Ms Parly, who is in India on a two-day visit, will call on Prime Minister Mr Narendra Modi and meet National Security Adviser Mr Ajit Doval. She is expected to lay the ground for French President Emmanuel Macron's upcoming trip to India. Ms Parly is also likely to push for a follow on order of additional Rafale fighter jets, after the delivery of 36 jets under a Rs. 58,000 crore deal finalised last year. The French Embassy had said in a statement yesterday that Ms Parly's visit is aimed at strengthening all aspects of France's "fast developing" defence cooperation with India, its foremost Asian strategic partner. It said Ms Parly's talks with Ms Sitharaman will range from defence cooperation, in particular maritime security, joint exercises of the armed forces and counter-terrorism to industrial and technological partnership under the 'Make in India' initiative.

Source: https://www.ndtv.com/i

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