



e-news

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Welcome to e-news



Nishant takes off with indigenously developed Wankel Rotary engine - Details under Technology

READER'S RESPONSE

The editorial team invites your views, suggestions, to the News about Members Column and contributions to the e-news.

India Aviation SWOT analysis: Huge Potential, Many Challenges

India's aviation industry presents some considerable opportunity, but has been dragged down by red tape and, more recently, excessive airline capacities amid the downturn in the global economy. Steps are being taken to address the shortcomings, but the industry does face a considerable test over the next 12-18 months. Strengths: Liberal Environment: India's airlines operate in a liberal environment in both the domestic and international spheres. With three major airline groups and four smaller carriers all operating domestic routes, there is no shortage of competition, although this factor combined with excess capacity has tended to depress yields. Nevertheless, carriers are free to operate any domestic routes without seeking permission from the government, and without restriction on pricing. One condition that airlines find onerous however, is the requirement to operate a proportion of ASKs to remote and underdeveloped regions of the country.

Source: *Centre for Asia Pacific Aviation*

B'lore will now spin astronauts

The nuts and bolts of India's planned manned space mission in 2014 are being put into place by the Indian Space Research Organisation (ISRO). An astronaut training centre - integral for the space mission - is coming up at Devanahalli and will be completed within two years. An ISRO official who didn't want to be named adds, "We hope the new government at the centre will okay the manned space mission by the end of this financial year. The astronaut training centre will get ready in two years. Astronauts for the manned space mission will be trained here." He denies any collaboration with foreign space agencies for setting up this training centre. He says, "Space technology is very much secretive and no foreign agency would like to share information."

Source: *Bangalore Mirror*

Boeing India Research Center To Advance Aerospace Innovation

Boeing has set up a research and technology center at Bangalore. This center will collaborate with research and development organizations in universities and corporates in India and enhance the country's aerospace capabilities. The Indian center is also Asia's first for Boeing, which has two other facilities in Europe and Australia. For Boeing, such a collaboration with the best brains globally, gives the company a competitive technological edge. Boeing already collaborates with researchers at the Indian Institute of Science and at Wipro and HCL as part of the Aerospace Network Research Consortium, and the research center will continue on this foundation to break new ground in in aero structures, aerodynamics

and electronic networks. This is the first aerospace research consortium on a public-private basis in India. The company claims these efforts will change the future of aviation.

Source: *Trading Markets.com*

AIAA names Top 10 emerging aerospace technologies

The American Institute of Aeronautics and Astronautics released its inaugural list of the top emerging aerospace technologies today. "Green" aviation technologies headed the list. That includes emission and noise reduction used in the Federal Aviation Administration's Continuous Low Emissions, Energy and Noise program and the European Environmentally Friendly Engine program and "Clean Sky" joint technology initiative. Also on the list were alternative fuels, high-speed flight, efficient propulsion, active flow, advanced materials, active structures, health management, remote sensing and advanced space propulsion technologies. The list was developed by the group's Emerging Technologies Committee.

Source: *Kansas.com*

First AWACS aircraft lands at Jamnagar air base in Gujarat

The first of three Indian Air Force AWACS (Airborne Warning and Control System) platform aircraft touched down at the Jamnagar air base in Gujarat on Monday afternoon, flying in from Israel. The giant Il-76 configured in its new version was escorted by three MiG-29 and Jaguar aircraft each. The fighter formation took off from an advance fighter airbase of the South Western Air Command (SWAC). They caught up with the AWACS mid-air and escorted it as it entered the Indian Flight Information Region, till it made it home safely, IAF spokesman Wing Commander Tarun Kumar Singha said here. Air Officer Commanding-in-Chief, SWAC, Air Marshal K.D. Singh, Air Defence Commander Air Vice Marshal P. Singh and the AOC Jamnagar, Air Commodore C. Hari Kumar and air warriors of the air base welcomed the crew of the aircraft.

Source: *Hindu*

Tata, L&T, Godrej & Boyce put in bids for drone project

In a first for an Indian military aircraft programme, private sector firms Larsen and Toubro Ltd (L&T), Godrej and Boyce Manufacturing Co. Ltd and Tata Advanced Systems Ltd have bid to develop and build an unmanned aerial vehicle (UAV), or drone, used in surveillance operations. The three companies, and a fourth bidder—a combine of state-owned defence equipment makers Hindustan Aeronautics Ltd and

Bharat Electronics Ltd—submitted their bids on 15 May to the Defence Research and Development Organisation (DRDO) for the medium-altitude, long-endurance (MALE) aircraft, named Rustom, which will be designed to fly at least 250km at a stretch. "Now, a technical evaluation will be done before identifying the lead partner," said P.S. Krishnan, director of the Aeronautical Development Establishment (ADE), the DRDO unit that has built drones such as Nishant for the military. He said a decision would be taken later this year.

Source: *livemint.com*

HAL to develop Nashik airport

Hindustan Aeronautics is in talks with Mumbai International Airport Pvt Ltd to act as a consultant for the development of the Nashik airport, now used for test flights by HAL and Indian Air Force operations. Kingfisher Airlines operates two daily flights between Mumbai and Nashik. Mr P.V. Deshmukh, Managing Director, HAL, told Business, Line that MIAL - the joint venture company owned by the GVK-led consortium (74 per cent) and Airports Authority of India (26 per cent) - is helping HAL prepare a master plan. It is also expected to provide two consultants from the UK office to work out the details.

Source: *Business Line*

Navy's first air squadron turns 50

It has been 50 years since the Indian Navy's tryst with aviation took wings on a modest airstrip here. On June 17, the first naval air squadron, (Indian Naval Air Squadron) INAS 550 — christened 'Flying Fish' signifying the confluence of the surface and air elements of the maritime force — will celebrate its golden jubilee. The Navy plans to commemorate the day with the release of a first-day cover and a coffee table book. "As luck would have it, we have operated from the same premises all these years," Commander P.V.S. Satish, Commanding Officer (CO) of INAS 550, told The Hindu. "The hangar is still the same. But the squadron, being the fountainhead of naval aviation, has been at the forefront of the transition that has taken place over time." In hindsight, the establishment of a Fleet Requirement Unit (FRU) in Kochi to cater to aircraft targets for gunnery and radar-tracking practice and for radar and communication calibration in 1951 was a watershed in the history of the Indian Navy's air arm.

Source: *Hindu*

Scientists, strategic agencies must work as one: Balaram

The Indian Institute of Science Director P. Balaram

expressed concern over the diminishing connection between academic institutions engaged in science and research such as the IISc., and strategic agencies such as the Departments of Space, Atomic Energy and Defence Research and Development Organisation. He called upon them to work in unison for innovation and creativity, while addressing the members of the IISc. Alumni Association after inaugurating the two-day seminar on "Science, Technology and National Security: The Role of Indigenous Developments", organised by it and the IISc., as part of the centenary celebrations of the institute. Taking an analogy from biology, Prof. Balaram said that infectious diseases could be likened to terrorism. Whether it was cyber security or physical security, surveillance, detection or identification had to take place, followed by management of the problem and to get red of it, he said. He said that the connection between the strategic Government agencies engaged in R&D work was diminishing.

Source: *Hindu*

Tata's gift to IISc: Funds for new research centre

TATA Group chairman Ratan Tata, on Wednesday announced that the Tata group would donate a substantial amount for a new facility at the Indian Institute of Science (IISc). It is worth recalling that Ratan is the great grandson of Jamshedji Tata, who was the institute's founder. Speaking at IISc's centenary celebrations, Tata said that this would be group's contribution for the institute's new century, in addition to the grants that the Tata group has already given to it. According to IISc officials, this grant will go towards the setting up of an inter-disciplinary research centre, which will focus on problem solving.

Source: *Indian Express*

IISc to develop miniature UAVs

Unmanned aerial vehicles weighing as less as 50 gram will be developed by the Indian Institute of Science (IISc). The UAVs would be available for use by the government authorities for surveillance, disaster management and law enforcement purposes. Work on the project will start when the new laboratory on flight research and Unmanned Aerial Vehicles (UAV) is set up in IISc's department of Aerospace Engineering. The new laboratory will be set up in the upcoming building of the department. Till now, this feat of making UAVs of 50 gram has been achieved by only a few countries. "As the UAVs will have computers and cameras fixed on them, they will be pretty useful for law enforcement during riots etc.

Source: *Bangalore Mirror*

India sole operator near Moon now

At 11.55 pm (IST) on Wednesday, India attained a unique status in the universe because it became a sole country to operate in the vicinity of the moon. Speaking to TOI on Thursday, Isro officials requesting anonymity, said that India rocketed into this unusual position following the crash landing of the Japanese mooncraft, Kaguya, on the southern portion of the moon at 11.55 pm (IST) on Wednesday after carrying out Lunar observations for 17 months since its launch on September 14, 2007. Earlier, the Chinese Lunar craft, Chang'e-1 hit the Moon's surface on March 2, 2009. It was launched on October 24, 2007. Said an Isro official: "With the Chinese and Japanese Moon missions having ended, Chandrayaan-1 is now the only operational spacecraft orbiting the Moon." Chandrayaan-1 will be functioning solo around the Moon till Nasa's Lunar Reconnaissance Orbiter (LRO), slated for lift on June 17, enters the Lunar orbit around June 21. He said that Chandrayaan-1's Sara payload, which is one of the six foreign instruments on board the Mooncraft, will be studying the impact of Kaguya's crash landing and the debris and dust it threw up.

Source: *Times of India*

Superjet tech tested for flight to future

Australian and US scientists have successfully tested hypersonic aircraft technology which could revolutionize international flight, officials said. The trial was the first of up to 10 tests to be conducted at the Woomera desert range as part of a joint US-Australian military research operation, said defence science minister Warren Snowdon. The programme, called Hypersonic International Flight Research Experimentation, testing hypersonics technology and its potential for next generation aeronautics. "Hypersonics is the study of flight exceeding five times the speed of sound," he said. The test vehicle was carried into space aboard a rocket launched from Woomera and then dived back into the atmosphere to test the hypersonic flight technology. Nitrogen gas

valves were used as thrusters to manoeuvre the craft in space and correctly position it for reentry into the atmosphere.

Source: *Times of India*

Airbus Demonstrates 40 Years of Innovation and Shaping Efficiency

French Aviation Airbus is proud to mark the 100th anniversary of Le Bourget Air Show by demonstrating break-through technologies, top-end innovations and Airbus "Firsts" from the company's own 40 year history. Visitors can see, feel, and touch aircraft and many items, which have revolutionised aviation and have led to today's Airbus global leadership position. This also includes flying displays by the world's most modern and eco-efficient airliner, the A380. Airbus will be present at the EADS Pavilion (Row A-418). The Press Chalet is located at Row A 415-417. For the first time since it became an integrated civil and military aircraft company, Airbus will exhibit its full aircraft portfolio at the EADS stand in Hall 2A-151.

Source: *Planenews.com*

DRDO working on fresh features

With the Arjun main battle tank slated to be compared with Russian T-90 tanks in trials after August, the DRDO is working on development of a host of armoured defence systems to provide additional capabilities to the indigenously developed battle tank. The DRDO is developing a laser warning control system (LWCS) and mobile camouflaging system (MCS) to be equipped on the Arjun which is expected to be fielded for regimental-level trials with T-90s during the monsoon, Defence Ministry officials said. The MCS is being developed by the DRDO to help the tank reduce the threat of interference from all types of sensors and smart munitions of the enemy in the tank's systems.

Source: *Indian Express*

India's manned space mission will have IAF men

When India's first manned mission to space takes off, possibly in 2017, it will have Indian Air Force (IAF) personnel on board. "Let me promise you one thing, if there is a (Indian) man on moon (read space), it will be from the Indian Air Force," IAF chief Air Chief Marshal Fali Homi Major told reporters here. According to sources, the IAF is to train two of its personnel for the mission, in collaboration with the Indian Space Research Organisation (ISRO). The proposed manned mission will follow India's successful lunar probe launch last year. Major added that the IAF's Institute for Aerospace Medicine is working closely with the Indian Space Research Organisation (ISRO) on the project. The mission is likely to carry

a two-member IAF crew. India's Squadron Leader Rakesh Sharma, who was part of the joint space programme between India and the erstwhile Soviet Union in 1984, was the first Indian to go into space.

Source: *Economic Times*

Eyes In The Skies

Most people are aware of the Hubble space telescope because of the beautiful stream of images it has gathered and sent back to earth. Recently, the Atlantis space shuttle landed after completing its task of repairing the hugely successful telescope for probably the final time. Astronauts installed new components and repaired others, making the Hubble even better than before. While the telescope is expected to keep transmitting those awe-inspiring visuals for another five years, it is essentially adrift now, with no more service missions planned should something go wrong. The Hubble is a landmark in human achievement. Among other scientific accomplishments, it has discovered hundreds of protogalaxies that emitted light when the universe was forming and helped establish the age and expansion rate of the universe. With its new instruments, it is expected to be able to see deeper

into space and farther back in time, no doubt contributing more to our understanding of the history of the cosmos.

Source: *Times of India*

Nishant takes off with indigenously developed Wankel Rotary engine

The first ever indigenous Wankel Rotary engine, powering Nishant, the Unmanned Air Vehicle (UAV), took off from a World War II abandoned runway near a village eight kilometres from Kolar in Karnataka. The maiden flight of the indigenous Wankel engine of a UAV took off, climbed to an altitude of 1.8 km effortlessly before cruising for 35 minutes. The air vehicle was recovered safely at the intended place at a dried-up lake after total flight duration of 40 minutes. The event signifies achievements in many categories: It is the first time that a Wankel engine has been developed within the country and UAV flown with an indigenous engine. The engine, a Wankel Rotary type, was a developmental project, which originated at the DRDO through VRDE, Ahmednagar, and was jointly designed and developed by NAL, a CSIR laboratory, VRDE, Ahmednagar, and ADE, Bangalore.

Source : <http://www.nal.res.in/pages/ipmay09.htm>

China unveils aircraft centre

Commercial Aircraft Corporation of China Ltd. (COMAC) has unveiled its manufacturing and assembling centre here, the latest step towards the goal to manufacture homegrown large aircraft. The Final Assembly Centre of the COMAC was based on the Shanghai Aircraft Manufacturing Co., with a registered capital of two billion yuan (\$292.7 million), said COMAC's general manager Jin Zhuanglong. It was one of the COMAC's three key entities responsible for aircraft design, manufacturing and service. Mr. Jin said the Center's new base in Shanghai's Pudong area would be constructed within this year. By 2010, it would be able to produce 30 ARJ21-700 model planes a year, and the capacity will be expanded to 50 jets by 2012, he said.

Source: *Hindu*

Jet Airways Konnect to add 30 new flights from June 13

Jet Airways Konnect, the all-economy service launched by Naresh Goyal-owned Jet Airways last month, will enhance its network to include 30 new flights to its current pan-India network of 62 daily flights effective June 13, said a statement. With the launch of these new services, Jet Airways Konnect will link Hyderabad and Thiruvananthapuram with Chennai, while enhancing current services on the Coimbatore-Chennai sector. Jet Airways Konnect will also introduce services from

Thiruvananthapuram and Mumbai to Bangalore, while enhancing existing services on the Hyderabad-Bangalore sector. This service currently links several destinations, including Kochi, Pune, Hyderabad, Coimbatore, Ahmedabad, Jaipur, Bhopal, Amritsar, Jorhat, Agartala and Guwahati with five major metros — Mumbai, Delhi, Bangalore, Kolkata and Chennai. The Jet Airways Konnect service will operate with a fleet of 10 ATR 72-500 and three Boeing 737-800 aircraft on key domestic routes across India, the statement added. The airline started this service with six ATRs and two B737s on May 8.

Source: *Business Line*

Work on airport city to start in 2010

Bangalore International Airport Ltd. (BIAL) will begin work on the proposed airport city (aerotropolis) in the first half of 2010. BIAL is holding talks with developers of the project, sources in BIAL, which operates Bengaluru International Airport at Devanahalli, told The Hindu here on Friday. BIAL's decision to develop an airport city is in line with the increasing attention being paid to aerotropolises the world over. An aerotropolis is a city in which the layout, infrastructure and economy are centred on the airport. According to sources, the airport city project has provisions for premium land for commercial real-estate development such as office parks, retail, entertainment and hospitality, in addition to the land reserved for a rail link to the city.

Source: *Hindu*

Challenges ahead for low-fare aviation pioneer in air cargo biz

G.R. Gopinath's new air cargo venture Deccan 360, his second coming as an aviation entrepreneur, was never an afterthought. Even before he launched low-fare carrier Air Deccan in 2003, helping millions of Indians fly for the first time, he had set his sights on the business. Gopinath's plan was to expand Deccan Aviation Pvt. Ltd, then a heli-charter business, to include a no-frills passenger airline that would reach corners untouched by other private airlines. That, he hoped, would also help him tap the vast potential for moving cargo between India's numerous small-town business hubs. His aircraft, the former army captain then said, would ideally carry a 60:40 mix of passengers-to-cargo weight. The cargo would act as a buffer for unfilled passenger seats.

Source: *livemint.com*

Tata-Sikorsky Deal Ends HAL Aerospace Monopoly

The monopoly held by India's state-owned aeronautic manufacturer, Hindustan Aeronautics Ltd. (HAL), has been broken by the private firm Tata Advanced Systems Ltd. [TASL], which struck a joint venture with U.S.-based Sikorsky Aircraft to manufacture helicopters here. An executive of TASL said the helicopters will be built for both defense and civil purposes, and include utility and strike versions for the armed forces. Sikorsky is already in the race for India's program to procure 197 utility helos, along with Agusta Westland of the United Kingdom, Eurocopter of France, Kamov of Russia and Bell Helicopter of the United States. The joint venture between TASL and Sikorsky is being set up near the central Indian city of Hyderabad in an Aerospace Special Economic Zone. The joint venture will be built at a cost of \$200 million and the plant will be commissioned in one year, added the TASL executive.

Source: *Defense News*

Helicopter unit to be set up in Hyderabad

A Rs.1,000-crore helicopter manufacturing unit is being set up by Tata Advanced Systems in the Aerospace SEZ, near the Hyderabad International Airport, Shamshabad, here. The Andhra Pradesh Industrial Infrastructure Corporation (APIIC) has allotted 50 acres for setting up the unit and the lease deed was presented by APIIC's Chairman and Managing Director B.P. Acharya to the company's CEO, Devender Kumar, in the presence of Major Industries Minister K. Lakshminarayana here on Monday. Principal Secretary, Industries, Sam Bob was also present. According to an official release, manufacturing is likely to commence by

June 2010 in view of the export orders already available. The project to be taken up in phases by the company is expected to provide employment to at least 1,000 technical personnel. Mr. Acharya said the company proposed to manufacture large helicopters for commercial transport. Without giving further details, he said Tatas would be manufacturing the choppers on behalf of a U.S.-based company. In response to the invitation by Chief Minister Y.S. Rajasekhara Reddy, the Chairman of Tata Group, Ratan Tata, mentioned about his plan to establish the unit and the same was announced by Dr. Reddy during the India Aviation show held in October last.

Source: *Hindu*

India invites bids for \$2 bln in helicopter deals

India has invited bids for two separate defence projects worth more than \$2 billion to arm its air force, a defence official and the country head of Boeing Co (BA.N) said on Tuesday. The Indian Air Force is seeking 22 attack helicopters and at least 15 heavy-lift helicopters as it plans to replace its aging Soviet-era fleet with modern weapon systems. "Boeing has received the Request for Proposals (RFPs) for the attack and heavylift helicopters and will review the requirements," Vivek Lall, India country head of Boeing's Integrated Defense Systems (IDS), told Reuters on Tuesday. The government said it would prioritise defence and push forward pending projects to modernise its armed forces.

Source: *Reuters*

Isro arm eyes biz order worth \$100-150 million

Business in the skies is picking up, atleast for Indian space agencies with Antrix Corporation, the commercial arm of the Indian Space Research Organisation (Isro) chasing contracts worth \$100-150 million back here on earth, this year. Demand remains high for its low-cost space solutions not only from the US and Europe, but from emerging countries like Algeria, Chile, Brazil, Argentina, Kazakhstan and Middle East. "We hope to clock 8% growth and touch revenue of Rs 1,000 crore. We have a backlog of orders worth Rs 1,000 crore which will be completed in the next 3-4 years," Antrix managing director, KR Sridhara Murthy, told ET. "We are in discussions with customers for satellite contracts," he added.

Source: *Economic Times*

HATSOFF: HAL-CAE helicopter training centre to be operational by next year

The foundation stone laying ceremony for a new helicopter training centre was held in Bangalore on Monday. The facility — Helicopter Academy to Train by Simulation of Flying (HATSOFF) – is an equally-owned joint venture between HAL and CAE. The centre will be operational by mid-2010. Speaking on the occasion, Mr Sanjeev Sahi, Director (HR), HAL, said that this facility would be first of its kind once operational. "HATSOFF will offer Level-D simulator training to helicopter pilots and maintainers. By partnering with CAE, we are making sure the simulation technology is at the leading edge in order to play a key role in training and producing skilled and mission-ready helicopter crews. HAL is committed to enhancing the safety of helicopter operators in India and to provide a complete service offering for our military and civil clients of the Dhruv helicopter," Mr Sahi said.

Source: www.hal.com

P V Naik is IAF chief

Air chief Marshal Pradeep Vasant Naik, a fighter pilot, on Sunday took over as the chief of Indian Air Force succeeding F H Major who retired after a 26-month tenure. Major, a helicopter pilot, was the first IAF chief who was not a fighter pilot. Naik has the huge task of modernisation of the force as he assumes office. The IAF is in the process of acquiring 126 medium multi-role combat aircraft, 22 combat helicopters, 15 heavy lift and 197 light utility helicopters (LUH) for its fleet in its efforts to deal with the problem of decreasing number of fighter aircraft squadrons. Naik has logged 3,000 hours of flying combat aircraft. He was born in Nagpur and commissioned as a fighter pilot on June 21, 1969. India is currently building its air combat strength in the eastern sector to counter the increasing threat from China which has built substantial land infrastructure in the region.

Source: *Times of India*

R. Srinivasan MD for HAL's Helicopter Complex

Mr R. Srinivasan has been appointed as the Managing Director, Helicopter Complex, Hindustan Aeronautics Ltd (HAL). Prior to this he was the General Manager of HAL's Helicopter MRO Division. This new position has been created to bring all helicopter design, development and manufacturing activities under one umbrella. Mr Srinivasan will head five critical Divisions of HAL, including the Helicopter Division, Helicopter MRO, Rotary Wing Research & Design Centre (RWRDC), Composite Manufacturing Division (CMD) and Barrackpore Division.

Source: www.hal.com

Vice-Admiral Nirmal Verma next Navy Chief

Vice-Admiral Nirmal Kumar Verma, will be the country's next Chief of Naval Staff. He will take charge from Admiral Sureesh Mehta, who retires from service on August 31, an official announcement said on Saturday. Vice-Admiral Verma, currently Flag Officer Commanding-in-Chief (FOC-in-C), Eastern Naval Command, has, during his long and distinguished 39 years of service, commanded aircraft carrier INS Viraat. Born on November 14, 1950, Vice-Admiral Verma was commissioned on July 1, 1970 into the Executive Branch of the Navy. He has served in a variety of Command, Staff and Instructional appointments. Besides the aircraft carrier, Vice-Admiral Verma's sea command includes leander class frigate "Udaigiri," and guided missile destroyer "Ranvir." Before taking over as FOC-in-C, Eastern Naval Command, he was Vice-Chief of the Naval Staff at the Naval Headquarters.

Source: *Hindu*

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