



e-news

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Aeronautical Society of India
Bangalore Branch Building
New Thippasandra Post
Bangalore 560 075
Karnataka, INDIA
Telefax: +91 80 25273851
e-mail: editoraesi@dataone.in
editoraesi@yahoo.com

Publication Team

Dr R Balasubramaniam
Dr S Kishore Kumar
Dr P Raghothama Rao
Ms Harpreet A De Singh
Dr Satish Chandra
Mrs Chandrika R Krishnan
Mr Hemanth Kumar R

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Head Quarters

The Aeronautical Society of India
13-B, Indraprastha Estate
New Delhi 110 002, India
Tel: ++91 11 23370516
Fax: ++91 11 23370768
e-mail: aerosoc@bol.net.in

Welcome to e-news



Us Clears HAWKEYE E-2D Aircraft for INDIA - Details under Current affairs

READER'S RESPONSE

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

Aviation hits air pockets on fuel cost

The global economic meltdown has dealt a body blow to the ailing Indian aviation industry, especially airport developers and full service carriers. Domestic air traffic had been growing at an amazing 30-40% since the advent of Low Cost Carriers (LCCs) in 2004. But the slowdown here, caused by recession in the West, meant fewer individuals and corporate taking to air and domestic traffic showing negative growth in 2009. Fewer passengers flying led to airlines cutting fleets by almost 30%. Lower revenue from both these counts led to ambitious upgrade plans of private and state-run airport developers going awry. What made matters worse that declining revenue was accompanied by quantum increase in operating cost due to rising prices of crude late last year. This was the first time in global history a weakening economy was witnessing hike in energy price. As a result, passengers were asked to pay a steep user fee to complete modernisation of Delhi and Mumbai airports, something that was envisaged only for new airports like Hyderabad and Bangalore. AAI is going to levy user fee soon at many airports. With airlines expecting losses of close to Rs 10,000 crore last fiscal and the situation not very different this year, they have run up arrears in hundreds of crores to oil companies and airports.

Source: *The Times of India*

Yingling Aviation Offers Lightweight Seat For Cessna Caravans

Yingling Aviation, which has installed more than 100 Oasis interiors in the Cessna Model 208 Caravan, has developed a new versatile lightweight seat (VLS) for use in the popular single engine turboprop. Designed to provide Caravan owners with an option that is lighter and with more comfort, the VLS can be incorporated into the OASIS package or ordered as an option on the standard Model 208. At a fully-upholstered weight of 45 pounds, the seat comes with a quick release feature that allows easy removal to permit the airplane to be used for cargo carrying missions. "The specially-designed VLS is another example of our ongoing efforts to provide Cessna Caravan operators with creative and economical ways to maximize the productivity-and comfort-of their airplane. The Caravan is known for its versatility so we've designed a seat that adds even more flexibility to it," said Mr Lynn Nichols, President of Yingling Aviation.

Source: *Aero-News.net*

US CLEARS HAWKEYE E-2D AIRCRAFT FOR INDIA

THE US Government has cleared yet another high technology system for India, the "futuristic" shipboard Hawkeye E-2D aircraft for Airborne Early Warning I (AEW) and battle management. The clearance has been described by diplomatic sources as fallout of

the "successful" visit of US Secretary of State Ms Hillary

Clinton and the signing of the End User Monitoring Agreement (EUMA) of military equipment being supplied or sold by the US to India. Like the Boeing P-81 Maritime Multi mission Aircraft (MMA), of which the Indian Navy has already ordered eight aircraft, the Hawkeye E-2D is the latest and is yet to be delivered to the US Navy. India is the second country after the UAE to be cleared by the US State and Defence Departments for sale of this sophisticated system. The US Navy has sanctioned \$432 million for trials of the aircraft, currently underway at the Naval Air Station Patuxent River in Maryland. The Naval Systems Command (NAVAIR) based there provides engineering and testing support for new naval systems and weapons.

Source: *Indian Express*

ISRO to set up 9 automatic weather stations in Bangalore

For scientific assessment of fluctuating weather patterns in the City and providing rainfall figures at different parts of the City, the Indian Space Research Organisation (ISRO) will set up nine automatic weather stations. The work is being executed for the Indian Meteorological Department (IMD). This is a unique project undertaken for the first time to study urban climatology, said Deputy Director of Atmospheric Science Programme, ISRO, Dr B Manikiam. "The low-cost when compared to existing manual observatory stations in the City and the highly reliable data they can provide are the biggest plus points," he said. The stations will record readings pertaining to pressure, temperature, humidity, rainfall, wind and sunlight. "The data will be transmitted to ISRO through our INSAT satellite. We will share the information with IMD," Dr Manikiam added. Each station will be set up at a cost of Rs 2 lakh and the whole project will be completed in a month's time. The Hyderabad-based Astra Microwave Limited will supply the parts and install them at the locations selected by the City's IMD. There are 750 such automatic weather stations all over the country, with Bangalore having only one at the premises of IMD.

Source: *Deccan Herald*

HAL to partner GE in engine building

When GE Aviation starts building the 132A engines for Lockheed Martin's fourth generation F-16IN Super Viper for the Indian Air Force, there will be an Indian partner involved. Speaking to press persons, GE Aviation Programme Manager Philip G. Woniger said, "We want Hindustan Aeronautics Ltd. involved in assembling the engines for the IAF. HAL has the experience through its connection in building the Tejas combat aircraft. It has assembled more than 400 engines for the IAF and has its overhaul facility in Hyderabad. All these make it a suitable partner." HAL

will be associated with much of the work related to the F-16IN Super Viper, including the testing of the aircraft and systems. GE will draw upon the aeronautical skills from among its Bangalore Research and Development centres.

Besides its aviation division, GE is also active in power projects and work related to oil and gas, Mr. Woninger said.

Source: Hindu

Runway in Mysore too small for Surya Kirans

This Dasara, the IAF's Surya Kiran team could give Mysore a miss. Reason: small runway. The IAF officials have conveyed to the state government that it is not technically feasible for the Surya Kirans to perform. The government officials will meet the IAF top brass in Bangalore on to finalize the aircraft for the Dasara air show. The IAF, which is spending over Rs 12 crore for the air show, was eager to bring the Surya Kiran team, but is now constrained, sources said. HAL's nine-member HJT-16 Kiran aircraft aerobatic team, known for its stellar performances, was planned to be showcased here despite the operational difficulties. But it was later proposed to cut down to three. Now, even that seems to be doubtful.

Source: Times of India

HAL airport is safe for operations

The HAL airport is safe for operation as it is still operational for VVIPs, submitted the Airport Authority of India Employees Union (AAIEU) before the High Court here. During the hearing, B C Thirvengadam, Counsel for AAIEU submitted that the airport is still in use to fly the VVIPs and the submission by Airport Authority of India (AAI) regarding its safety cannot be accepted. He also submitted that the Cargo flights too use the airport for loading and unloading. The AAI, in its submission, reacting to the earlier submission that the Union Ministry for Aviation has accepted the recommendations of the tripartite committee to reoperationalise the old airports of Bangalore and Hyderabad, said that there is only communication from the Ministry, but no directions.

Source: Deccan Herald

Chandrayaan data analysis will take time, says ISRO chief

It will take from six months to two years to analyse the data gathered by lunar probe Chandrayaan, which died an early death last fortnight, according to Indian Space Research Organisation (ISRO) chief Dr G. Madhavan Nair. At a news conference

here on Friday, he said Chandrayaan sent back some 70,000 images relating to a host of characteristics of the moon. A detailed analysis of the images was needed to arrive at conclusions about the nature of the moon and what it was made of. From a preliminary study, the snaps provided proof of some of the "textbook hypotheses" about the moon. Dr. Nair said some of the images indicated that man did land on the surface of the moon four decades back. Some of the images of imprints and tracks on the moon surface seemed to be those of the Apollo 11 venture. The ISRO was not planning to send humans to the moon in the immediate future. Its focus now was to send humans "around the earth and not to the moon." This it planned to do by 2015. The Chandrayaan II lunar probe would use robots.

Source: The Hindu

US, European scientists elated by Chandrayaan data

A high-level gathering of US and European scientists at a Chandrayaan-1 review meet was excited by data collected by Chandrayaan-1 and virtually acknowledged it has resulted in a shift in understanding of the Moon. Scientists from the Indian Space Research Organisation (ISRO), National Aeronautics and Space Administration (NASA) and European Space Agency (ESA) met here and reviewed data obtained from the 11 payloads (scientific instruments) onboard Chandrayaan-1. The scientists discussed results drawn from it and some are being assessed by a peer review committee. Scientists are happy at having used new techniques to study the Moon and some feel data quality has surpassed initial expectations. Similarly, other teams are delighted to map the Moon's polar regions using imaging radar for the first time.

Source: Times of India

Chandrayaan was a success: Mike Fincke

National Aeronautics and Space Administration (NASA) astronaut Edward Michael Fincke said. The Chandrayaan Mission of the Indian Space Research Organisation (ISRO) was a success, with 95 per cent of the mission being accomplished. Col. Fincke, popularly known as Mike Fincke, a veteran of two long-duration space missions aboard the International Space Station (ISS), said that though some people had raised speculation about the Chandrayaan Mission, the international scientific community felt the ISRO had accomplished its mission. The astronaut — who has been selected by NASA as a mission specialist in the six-member crew for the Space Transportation System (STS)-134 for his third space flight in 2010 — was speaking to reporters on the penultimate day of his 12-day official visit to Assam and Meghalaya. Col. Fincke's visit and his interaction with students were facilitated by the Friends of Assam and Seven Sisters (FASS). He interacted with students of the Indian Institute of Technology, Guwahati during the annual techno-management festival of IIT-G, Techniche 2009. Summing up his experience of the visit, the astronaut said the people of the region were very kind and warm and the students and teachers incredibly capable and intelligent.

Source: Hindu

Aircraft in Gulf to be tracked using satellites

Air traffic controllers will begin using satellite technology in December to track aircraft flying over the Gulf of Mexico, a significant milestone in the government's program to replace the nation's radar-based air traffic system, Transportation Secretary Mr Ray LaHood said. The most immediate beneficiaries will be airliners flying from the southern United States to South America, which will be able to take off more frequently and fly closer together, and helicopters servicing about 9,000 oil rigs in the Gulf, which should be able to fly more direct routes and be less limited by poor weather. The new technology will be used in a 240,000-square mile area of the Gulf. Radar coverage extends only about 150 miles from shore, so aircraft flying over the Gulf — or any large body of water — aren't covered. As a safety precaution, controllers are required to keep 100 square miles around each plane free of other aircraft. To do this, they stagger planes leaving the continental U.S. by ten minutes, an inefficient system that dates back to World War II.

Source: google.com/hostednews

Wind energy in India

The Indian Wind Energy Outlook 2009 outlines three different pathways for wind energy development up

to 2030. According to these scenarios, wind energy could generate a considerable share of nation's power needs, and bring numerous energy security along with economic and environmental benefits. With proper incentives, wind power can meet over 24 per cent of India's energy needs by 2030, says a study carried out by the Global Wind Energy Council (GWEC) and the Indian Wind Turbine Manufacturers Association (IWTMA). The projections made are based on certain research studies conducted under the collaboration of GWEC and German Aerospace Association (DLR) and International Energy Agency (IEA). The contents of the book are divided into 4 Chapters: Status of Wind Energy in India; Policy of environment for Wind Energy in India; Wind Energy Outlook scenarios and International action on climate change and the implications for Wind Energy. It is important for the readers to familiarise themselves with the status of wind energy in India and its development as it is soon going to be one of the most used sources of energy.

Source: Express buzz

New Technology Could Prevent Air Collisions

Equipment that could have prevented the midair collision between a single-engine plane and a sightseeing helicopter will be available nationwide by 2013, a federal aviation official told a Senate panel. But its use will not be required until 2020. Senator [Frank R. Lautenberg](#), the New Jersey Democrat who was chairman of the hearing by a Senate Commerce Committee subcommittee on aviation, suggested an interim solution: installing new radar on the George Washington Bridge, looking down the river, so Federal Aviation Administration controllers could see all the traffic and take responsibility for separating it. But witnesses said that the agency lacked the equipment and the manpower to extend air traffic control to the hundreds of planes and helicopters using the Hudson River corridor every day. Now pilots avoid collision through a system called "see and avoid." Pilots are advised to listen to a "common traffic advisory frequency" when they fly through the area, a tunnel over the Hudson from 1,100 feet down, and announce their presence and destination. The aviation agency says it will make that a requirement.

Source: The New York Times

Scientists say 'super-Earth' has rocky surface

Detailed data about smallest planet ever found outside our solar system suggest it is a rocky "super-Earth" world very like our own, European astronomers said. The so-called exoplanet, whose initial discovery was announced in February, has a mass five times that of Earth, which when combined with its radius suggests it has a solid surface and a density similar to our terrestrial home. "This is science at its thrilling

and amazing best," said Swiss astronomer Didier Queloz, the leader of the team that made the observations. About 330 exoplanets have been found orbiting other stars besides the Earth's sun, most of which are gas giants with characteristics similar to Neptune, which has a mass 17 times that of earth. But the planet at the centre of Wednesday's study called CoRoT-7b is different. It orbits only 2.5 million km from its star once every 20 hours and has a high temperature between 1,000 and 1,500 Celsius, meaning no life could survive there. Its radius is about 80 percent greater than Earth's.

Source: *Hindu Business Line*

NASA levitating mice to study low gravity

Scientists at NASA's Jet Propulsion Laboratory have succeeded in levitating mice, a feat that they say could lead to advances in treating bone loss for astronauts living for extended periods in low gravity environments. Jet Propulsion Laboratory physicist Mr Yuanming Liu said in an interview that the mice were levitated using a device called a no gravity simulator. "The reason we want to levitate mice is we are aware of the situation that astronauts who stay in microgravity environments long enough might lose some bone mass," Mr Liu told Reuters. Liu said the second stage of experimentation will involve having the mice live in the levitator for a week or longer to see what physical effects result. According to a paper published by Liu 4 his colleagues, under repeated levitation even mice that were not sedated began acting normally inside the special cage, eating and drinking while they floated off the surface.

Source: *Hindu Business Line*

G-corridors to cut space travel cost

Experts riding on latest research say that "gravitational corridors" will reduce the cost of space travel considerably. The corridors could help spacecraft ply the solar system like ships borne on ocean currents, the Telegraph reported scientists as saying. Researchers in the United States are trying to map the twisting "tubes" so they can be used to cut the cost of journeys in space. Each one acts like a gravitational Gulf Stream, created from the complex interplay of attractive forces between planets and moons. Depicted by computer graphics, the pathways look like strands of spaghetti that wrap around planetary bodies and snake between them. The gravitational pathways connect sites called Lagrange points where gravitational forces balance out. "Basically the idea is there are low energy pathways winding between planets and moons that would slash the amount of fuel needed to explore the solar system," the British newspaper quoted Shane Ross, from Virginia Tech as saying. "These are freefall pathways in space around and between gravitational bodies. Instead of falling down, like

you do on Earth, you fall along these tubes," he added..

Source: *Times of India*

Indian scientists develop world's hardest nano composite material

The world's hardest plastic nano-composite material that can be used in missiles and aeroplanes has been discovered by a team of five Bangalore researchers headed by Mr CNR Rao, scientific advisor to the Prime Minister of India. They created the material by reinforcing ordinary plastic with nano-diamonds, a sheet of layered carbon and tiny carbon cylinders. For the reinforcement they used materials of nano-dimension. Strengthening a common polymer with nano-diamond, a new age material called graphene (one atom thick carbon honeycomb sheet) and carbon nanotubes have produced this material with extra hardness and stiffness. "The mechanical properties like hardness and stiffness (after moulding) improved by as much as 400 per cent compared to those obtained with single reinforcements," the researchers reported in the *Proceedings of National Academy of Sciences*. The team comprises researchers from Indian Institute of Science and Jawaharlal Nehru Centre for Advanced Scientific Research. The original idea came from Mr Rao - an eminent scientist and founding president of the JNCASR.

Source: *NanoWerk*

ISRO to launch youthsat project with Russia

Elated over data sent by Chandrayaan-1, ISRO is now preparing to launch Youthsat, a micro satellite space programme with Russia involving Indian and Russian students. They will help in making instruments to be carried on a micro satellite to be launched by India. ISRO is also headed to St Petersburg, Moscow, for a presentation on its space programme during which issues relating to India's second Moon mission, Chandrayaan-2, which will be undertaken in collaboration with Russia in 2011, are expected to be discussed. ISRO official S Satish who is proceeding to St Petersburg this week told TOI: "We will make a presentation on India's space programme between September 27 and October 4. We are showcasing our space missions, satellites and launch vehicles along with presentations on our future plans."

Source: *Times of India*

NASA manned space missions under threat

NASA's plans to fly to the moon and Mars are under threat from a lack of funds and the space agency needs another \$3 billion for its dreams to become reality, a presidential panel said. In a 12-page summary report released. Offering a bleak assessment of plans to send astronauts back to the moon, the committee said the space agency would need the \$3 billion on top of its \$18 billion budget to meet its ambitious targets.

Source: Hindu

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For details contact :

Dr R Balasubramaniam
 Editor - e-news Editorial Team
 The Aeronautical Society of India
 Suranjandas Road
 New Thippasandra Post
 Bangalore - 560 075
 Telefax : 080 25273851
 Email : editoraesi@dataone.in
editoraesi@yahoo.com



"I know it's a pie in the sky, Henshaw, but from a career perspective point of view we'll log it in as 'unidentified small aircraft'."