



E - NEWS

EVERY MONTH FROM AERONAUTICAL SOCIETY OF INDIA

Volume - 5

December - 2011

Release - 12

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Publisher

Journal of Aerospace Sciences
and Technologies
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Advertisement - Tariff

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

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**Rustom - 1 makes successful flight - 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.

Desi Sukhoi does Supersonic Ballet on Debut

The made-in-India Sukhoi (Su-30MKI) is up and flying. Amid Diwali fireworks, the Ozar air base in Nashik witnessed a silent, yet stellar affair. The desi Sukhoi, a 4.5 generation fighter, took to the skies for the first time and performed a 55-minute supersonic ballet. Also flying high was the Swadeshi pride considering that this was the first aircraft manufactured from a complete raw material phase. The striking feature was the pilots pulling 9g at the first attempt itself, a pointer to its structural integrity. Indian Air Force (IAF) sources confirmed to express that the Sukhoi was piloted by Wg Cdr S C Sharma with co-pilot Wg Cdr S S Mallick in the rear. The Aircraft Manufacturing Division of Hindustan Aeronautics Limited (HAL), Nashik, produced this metal bird with close to 28,000 parts and using 1, 20,000 tools.

Source: *Indian Express*

Independent body for safety in civil aviation likely

In order to ensure better regulation of aviation safety and security, an independent Civil Aviation Authority is on the anvil with the Civil Aviation Ministry finalising a draft legislation on the issue. Once the draft is finalised, it would be circulated to other ministries for their inputs before it is placed before the Union Cabinet for approval. However, this process would take some time, official sources said. The proposed LCA would have financial and administrative autonomy to take expeditious decisions on matters relating to a range of activities - from regulation of air traffic services and licensing to ensure financial fitness of airlines, they said.

Source: *Economic Times*

Indian Air Force Seeks Six More C-130J airliners from US

India has asked the United States for another six Lockheed Martin C-130J Super Hercules special operations aircraft under a government-to-government Foreign Military Sales (FMS) deal. The request was conveyed recently, and in Washington, the Department of Defense (DoD) notified the US Congress for approval as mandated by law for any FMS delivery of weapon systems. The proposal is likely to be cleared within a month as both the Democratic and Republican parties have extended bipartisan support to strengthening India-US relations. The Indian Air Force (IAF) chief, Air Chief Marshal Norman Anil Kumar Browne, told India Strategic defence magazine (www.indiastrategic.in) in an interview that he expected a formal agreement with the US by January 2012.

Source: *Indian Express*

Army gets 2nd regiment of Brahmos missiles

The Indian Army received its second regiment of Brahmos cruise missile, which is likely to be deployed along the China border. The regiment includes four-to six road-mobile missile launchers, each carrying a battery of four cruise missiles. The missile, which travels at a supersonic speed of 2.8 Mach, packs enough punch to destroy an enemy target 290 km away. The second regiment was handed over to the Army by Union Minister of State for Defence Mr M Pallam Raju at a function in the presence of Brahmos chief Mr A Sivathanu Pillai. Army received its first Brahmos regiment way back in 2007 when Gen Mr J J Singh was Army chief. It led to the formation of N816 missile regiment. Due to its versatility and user friendly

operation, Brahmos emerged as the most reliable system for the Indian Armed Forces. We have guns for near range and Smerch Rockets for range of 75 km.

Source: *Deccan Herald*

Boeing to take over NASA hangar to build capsule

Boeing is taking over one of NASA's old space shuttle hangars to build a new capsule that the company hopes will lift astronauts to orbit in four or five years. More than 100 Boeing, NASA and state and federal officials gathered in the massive empty hangar Orbiting Processing Facility No. 3 for the announcement of the first-of-its-kind agreement allowing a private company to take over the government property. The aerospace company expects to create 550 high-tech jobs at Kennedy Space Center over the next four years, 140 of them by the end of next year. NASA is counting on companies such as Boeing, Space Exploration Technologies Corp. and others to ferry cargo and astronauts to and from the International Space Station in three to five years.

Source: *Hindu Business Line*

CSIR innovation complex to come up in Bangalore

The Council of Scientific and Industrial Research (CSIR) will set up eight innovation complexes, including one in Bangalore, in the 12th plan period. The CSIR decision is aimed at creating a portfolio of commercial products based on indigenous technologies. Prime Minister Dr Manmohan Singh has approved the establishment of the first three in Chennai, Mumbai and Kolkata within the next 18-24 months, CSIR Director-General Dr Samir Kumar Brahmachari told Deccan Herald. The other complexes will come up subsequently. Each of these Rs 90-crore innovation complex - swanky towers teeming with young scientists and students bristling with ideas - will focus on one particular area and translate indigenous research into products and technology with commercial potential. Similar innovation complexes will be set up in Delhi, Bangalore, Pune, Hyderabad and Ahmedabad. The Bangalore complex will concentrate on a new innovation concept known as "Fourth Paradigm," which is basically discovering new product leads and services models through large-scale data mining.

Source: *Deccan Herald*

Indigenous civil aircraft in about five years

Notwithstanding the hard times the country's civil aviation sector is going through, the High Powered Committee of the National Civil Aircraft Development is optimistic about the feasibility of the indigenous civil aircraft programme. "The project has entered the preliminary design phase. The first flight would be carried out in about four-and-a-half years while the completion of the certification process will take at least six years. We can enter series production in about eight years' time," Dr A R Upadhya, former NAL director and member of the committee said. He was

delivering the keynote address at the fifth symposium on Applied Aerodynamics and Design of Aerospace Vehicles (Sarod-2011). He said air traffic has been witnessing a steady growth in the country and there would be a demand for 350 civil aircraft in India by 2030.

Source: Deccan Herald

Operational trials of ATC systems of IAF scheduled for next year

The Indian Air Force's ambitious plan to improve the infrastructure of its airfields is on course and a key component in integrating various systems for air traffic control should become operational for trials by early next year at the first site. The first site is being readied by U.S. major Raytheon to enable different radars of the IAF to integrate and provide data. It is one of the crucial programmes of a '1,000-crore Modernisation of Airfield Infrastructure (MAFI) contracts that Tata Power Strategic Electronic Division signed with the IAF in April. "It is a large umbrella contract for modernisation of the IAF airfields. In the first phase, 30 airfields are covered and we are working to integrate and install air traffic control automatic systems. The operational trials at the first site

were expected to be held by the first quarter of 2012," Mr Robert Meyer, Raytheon Business Development Manager for Air Traffic Management, told.

Source: Hindu

N-capable Agni-IV test-fired with high accuracy

India added another feather in its strategic defence profile by successfully test launching a new generation missile Agni-IV, first of its kind in the world, with a high accuracy, from a defence base off the Odisha coast. Having a strike range of over 3,000 km, this indigenously built surface-to-surface nuclear-capable Intermediate Range Ballistic Missile (IRBM) was test-fired from the launching complex-IV of the Wheelers Island, near Bhadrak district's Dhamra coast. Scientists and the senior Army personnel, who were closely monitoring the trajectory and flight path of the missile at the mission control room, went into raptures as the missile rose majestically into the sky, spewing thick yellow and white smoke and travelled in the pre-coordinated projectile.

Source: Indian Express

Indian students' aircraft design wins NASA contest

A team of students from a Chennai College have won a contest organised by the National Aeronautics and Space Administration (NASA) on ideas and designs for future aircraft. The team from the Department of Aerospace, SRM Institute of Science and Technology, Kattankulathur won third place under the foreign university team category. The team consisting Mr Akshay Garg, Mr Surya Kiran Peravalli, Mr Abdul Sayeed Khan and Mr Pate Sweety Prakash won the environmentally responsible (green) aviation college student challenge in May 2011. They have developed a conceptual aircraft named SERA (SRM Environmentally Responsible Airliner), which is incorporated with many innovative design features.

Source: NDTV

China launches space station module

China launched its Shenzhou-8 unmanned spacecraft, which will dock with a laboratory module in outer space and set the stage for the building of the country's first space station. The spacecraft was launched, carried into orbit on a Long March-2F rocket. The spacecraft would dock with the Tiangong-1 laboratory module, which was launched on September 29, said Chinese officials. The launch of the Tiangong-1 laboratory module and the docking exercise have been seen as key landmarks for China's fast-expanding space programme and crucial steps in China's plans to become only the third nation, after the United States and Russia, to set up a space station by 2020.

Source: Hindu

Naval LCA will take to skies soon

The much awaited first flight of the naval variant of the light combat aircraft (LCA), Tejas, is scheduled in about

four week's time. The team behind the project is busy giving finishing touches. Aeronautical Development Agency (ADA) chief Mr P S Subramanya said, "We have completed a series of ground tests and are almost through with the flight certification. We should have the first flight in the next four weeks." The LCA Naval Prototype-1 (NP1), which is a trainer aircraft, will take to the skies for the first time in mid-December, but not without the required caution. Mr Subramanya, pointing out the flawless flight record of the Indian Air Force-version of Tejas has had - with no crashes or failures reported - said: "We do not want to hurry up things in excitement and repent later."

Source: Deccan Herald

Rustom-1 makes successful flight

Indigenously designed and developed unmanned aerial vehicle (UAV), Rustom-1, made fifth successful flight while flying at an altitude of 2,300 ft above ground level and at a speed 100 knots during 25 minutes of cruise near Hosur. The medium altitude long endurance UAV is developed by Defence Research and Development Organisation (DRDO) with Aeronautical Development Establishment (ADE) Bangalore as the nodal laboratory. It had its maiden flight in 2010. Mr P S Krishnan, Director, ADE stated that the flight was successful as all the modifications done worked well and all the parameters were achieved by the UAV which was weighing 661 kg and the total performance was good. In specific the objective of testing modified lift off scheme, modified altitude and speed hold logics worked excellently well.

Source: Deccan Herald

Modern aeromedicine vital to nation: Air Chief

The Chief of Air Staff, Air Chief Marshal N.A.K. Browne, has underlined the need to have world-class aeromedical technologies and facilities in the Air Force that are in tune

with today's modern fighter aircraft. He told aerospace medical experts that the Air Force cannot afford to lose its airmen or the vehicle as both were highly valuable. Aerospace doctors and aviators should sustain their bonds, he said, and lauded aerospace medicine specialists for taking care of the country's civil and military pilots. The IAF Chief was on his first visit to the city after taking charge, and inaugurated the 51st conference of the Indian Society of Aerospace Medicine.

Source: *Hindu Business Line*

India eyes RAF's Typhoon aircraft

The RAF's Typhoon combat jet is the leading contender for bagging a multi-billion pound deal to supply the Indian Air Force with a combat jet. The 'flawless' performance of the Eurofighter Typhoon in the Libyan war has catapulted the aircraft ahead of its main rival to win one of the most lucrative defence deals in recent times. The Indian government has shortlisted the Dassault Rafale and the Typhoon, both veterans of the Libyan campaign, for a 7 billion pound order of 126 jets. The Typhoon was leading after the jet scored highest in a technical assessment by Indian pilots who flew the aircraft last year. But it is believed it will be the Typhoon's performance in the Libyan conflict, where it completed more than 600 combat missions that will help to clinch the deal, the result of which will be made public before Christmas.

Source: *Bangalore Mirror*

Interested in Joint Strike Fighters US Asks India

The US, which lost a bid for a \$11 billion contract for 126 war planes, has now offered New Delhi partnership in the development of the world's most advanced flying machine, the F-35 Joint Strike Fighter. Pentagon, which acknowledged that India's recent decision not to opt for America's F-16 and F-18 fighters was a setback, said it was still interested in selling its top-notch fighters to India. Despite this setback, we believe US aircraft, such as the Joint Strike Fighter (JSF), to be the best in the world, the Pentagon said. Should India indicate interest in the JSF, the US would be prepared to provide information on the JSF and its requirements (infrastructure, security, etc) to support India's planning, the Pentagon said in a report.

Source: *Economic Times*

India to buy 2 more Awacs

India will order another two advanced Israeli Phalcon Awacs (Airborne Warning and Control Systems), or the formidable eyes in the sky capable of detecting hostile aircraft, cruise missiles and other incoming aerial threat far before ground-based radars at a cost of over \$800 million soon. Top defence ministry sources say the draft contract for the two new Awacs is now finally in the final stages of being examined before its inked as a follow on order to the \$1.1-billion tripartite agreement among India, Israel and Russia in 2004, under which IAF inducted three Phalcon Awacs in 2009-10.

Source: *Times of India*

Tata wins Indian radar-jamming contract

India has awarded Tata Power Strategic Electronics Division a contract for two integrated electronic warfare systems to be deployed in mountain regions. Tata came out the low bidder, narrowly beating Israeli firm Elta, for the contract

estimated to be around \$186 million, the Press Trust of India reported. The IEWS will be used to locate, detect and jam enemy radar and electro-optical measures in mountainous borders with China and Pakistan. India's defense department sent out the tender in 2007 to domestic and foreign companies — Israeli firms Elisra and Elta, Thales of France, EADS of Germany and domestic suppliers Tata Power, Larsen and Toubro, Bharat Electronics, ITI and Axis Aerospace. The contract likely will be finalized this month,

Source: *UPI.com*

Airbus Draws With Boeing at Dubai Show

Airbus SAS and Boeing Co. (BA) finished the Dubai Air Show neck and neck on contracts, in an event dominated by Boeing's biggest-ever order and a public tirade against Airbus by one of its most important customers. Boeing left with an order from Emirates for 50 777-300ERs valued at \$18 billion at list price and pulled in another for two 777 freighters from Qatar Airways Ltd. worth \$560 million. Airbus's \$17.6 billion order tally relied almost entirely on the single-aisle A320neo, the industry's fastest-selling model. In Dubai, Airbus's A350 wide-body failed to attract business and instead drew criticism from Qatar Airways Chief Executive Mr Akbar Al Baker, who said the design on the biggest variant fell short.

Source: *Bloomberg*

Aviation: India invites US investment

India invited American business to invest in the burgeoning aviation sector, saying there is a huge potential for investment of up to \$130 billion over the next 10 to 15 years. Maintaining that India's air passenger traffic would rise to 260 million by 2020, civil aviation secretary Mr Nasim Zaidi said private investment so far in the sector has been about \$6 billion and the country would require \$130 billion worth of further investment over the next 10-15 years. American companies should explore the wealth of opportunities in the areas ranging from airport modernization and aerospace to maintenance, repair and overhaul and cargo, he said while inaugurating the third US-India Aviation Summit in New Delhi.

Source: *Rediff.com*

5k cr defence deals await nod

All decks have been cleared for two crucial defence deals, together worth over ₹5,000 crore, to acquire 75 Swiss turboprop aircraft to train rookie pilots as

well as around 450 advanced French missiles to arm upgraded Mirage-2000 multi-role fighters. Defence ministry sources say the two deals have now been sent to the Cabinet Committee on Security for the final nod after clarifying all objections of finance ministry. The contracts will be inked after the CCS clears it within a week or so, said a source. This comes at a time when MoD and IAF are busy calculating the lowest bidder between French Rafale and Eurofighter Typhoon for the mega medium multi-role combat aircraft project to acquire 126 fighters at a cost likely to touch \$20 billion.

Source: Times of India

CORPORATE PARTNER SEMINAR



**ROYAL
AERONAUTICAL
SOCIETY**

AEROSPACE – THE YEAR AHEAD

**Royal Aeronautical Society, No.4 Hamilton Place, London W1
Wednesday 25 January 2012**

Programme

12.15	<i>Registration and Lunch</i>	15.35	(5) Exceeding Customer Expectations- A Global Airline Perspective Paul Dickinson, Director of Sales & Marketing, Virgin Atlantic Airways Limited
13.00	Chairman's Opening Remarks Simon Luxmoore, Chief Executive, Royal Aeronautical Society	16.05	(6) Precision Weapon Systems- An Update James Allibone, Director of Sector, Storm Shadow/SCALP EG, MBDA Missile Systems
13.05	(1) An Operational Update on Libya AVM Greg Bagwell, Chief of Staff (Joint Warfare Development), Royal Air Force	16.35	(7) The Role of the NCC in Developing Composites in UK Aerospace Peter Chivers, Chief Executive, National Composites Centre
13.35	(2) New Technologies for Future Aerospace Manufacturing Adrian Allen, Commercial Director, Advanced Manufacturing Research Centre, University of Sheffield	17.05	(8) Global Defence and Security Export Market Chris Baker, Operations Director, UKTI Defence & Security Organisation
14.05	(3) A400M Flight Test Ed Strongman, Chief Test Pilot Military, Airbus	17.35	Closing Remarks
14.35	(4) UAS Operations BAE Systems (Operations) Ltd, Military Air & Information – speaker tba	17.40	<i>Drinks Reception</i>
15.05	<i>Tea and coffee</i>	19.00	Close

EVENTS

Attendance at this Seminar is exclusive to Corporate Partners of the Royal Aeronautical Society

Registration fee: £156.00 (£130 + VAT @ 20%)

(includes lunch, refreshments, eight briefings and an evening drinks reception with canapés)

Register on-line at:

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Alternatively, to request a registration form, please contact:

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