Volume 7 Number 14 – Wednesday, 08 April 2015

Part I: Pakistan

Part II: Epicos Newsroom

Pakistan: Defence Industry, Indigenous Capabilities and Companies

One of the main goals of the Pakistani authorities is to meet the requirement of the Armed Forces through a prudent combination of defence equipment imports and indigenous production. This is why Pakistan is deliberately trying to create a viable defence industry. Currently, there are over twenty (20) major Public Sector Organizations and over one hundred (100) Private Sector firms engaged in the manufacturing of defence related products, which are internationally recognized for quality, reliability and competitive prices.

Regarding ground forces, Pakistani defence industry offers a wide variety of defence related products. Tank Al Khalid is the latest cost effective achievement of the indigenous industry and can be compared with any modern tanks in the world. In addition, Tank Al- Zarrar and APC SAAD are the symbol of quality and excellence of the Pakistani industry. Below there is a list of the most significant entities active in the abovementioned industrial domain:

Tank Al- Zarrar

- Armament Research and Development Establishment (ARDE), Rawalpindi
- Global Industrial & Defence Solution (GIDS), Chaklala, Rawalpindi
- Integrated Defence Systems (IDS)
- Scientific Engineering & Technology Services (SETS)
- Institute of Industrial Control Systems (IICS)
- Al-Technique Corporation of Pakistan (ATCOP)
- Heavy Industries Taxila (HIT)
- Institute of Optronics (IOP), Rawalpindi
- Military Vehicle Research & Development Establishment (MVRDE), Rawalpindi
- National Radio Telecommunication Corporation (NRTC), Haripur, Hazara
- Pakistan Machine Tool Factory (PMTF), Karachi
- Pakistan Ordnance Factories (POF), Wah
- People Steel Mills Ltd, Karachi

Pakistan has a navy consisting of modernized ships and submarines with state of the art equipment and weapon systems and indigenously built missile boats, fast patrol crafts and midget submarines. PN Dockyard is appropriately equipped to meet the maintenance requirements of the Pakistani Fleet. Additionally, Karachi Shipyard and Engineering Works (KS&EW) is the first Public Sector Organization who achieved ISO 9000 certification in 1996

and now is certified in ISO 9001:2008, ISO 14001:2004 & OHSAS 18001:2007. Below there is a list of the most significant entities active in the shipbuilding industry:

- Global Industrial & Defence Solution (GIDS), Chaklala, Rawalpindi
- Marine Systems (Pvt) Ltd (MSL)
- Karachi Shipyard and Engineering Works (KS&EW), Karachi

JF-17 Thunder

The Pakistani defence industry has made significant progress in the domain of air systems. It is indicative that most of the Pakistan Air Force (PAF) requirements of MRO are met through Pakistan Aeronautical Complex (PAC) at Kamra. Moreover, the company in collaboration with other entities in and out of the country has developed the JF-17 Thunder, Super Mushshak and K-8 aircraft. Below there is a list of the most significant entities active in the aircraft and related equipment industry:

- Global Industrial & Defence Solution (GIDS), Chaklala, Rawalpindi
- Advanced Engineering Research Organization (AERO)
- Integrated Defence Systems (IDS)
- Pakistan Aeronautical Complex (PAC), Kamra
- Precision Engineering Complex (PEC), Karachi

Kyriazis Vasileios,
Epicos Newsletter Head Editor

AH-1Z Viper Attack Helicopters and AGM-114R Hellfire II Missiles for Pakistan


Source: ©Bell Helicopter

On April 6, 2015, the State Department has made a determination approving a possible Foreign Military Sale (FMS) to Pakistan for AH-1Z Viper Attack Helicopters and AGM-114R Hellfire II Missiles and associated equipment, parts, training and logistical support for an estimated cost of $952 million. This proposed sale of helicopters and weapon systems will provide Pakistan with military capabilities in support of its counterterrorism and counter-insurgency operations in South Asia. The principal contractors will be Bell Helicopter, Textron in Fort Worth, Texas; General Electric in Lynn, Massachusetts; The Boeing Company in Huntsville, Alabama; and Lockheed Martin in Bethesda, Maryland. There are no known offset agreements proposed in conjunction with this potential sale.

The possible sale includes 15 AH-1Z Viper Attack Helicopters, 32 T-700 GE 401C Engines (30 installed and 2 spares), 1000 AGM-114 R Hellfire II Missiles in containers, 36 H-1 Technical Refresh Mission computers, 17 AN/AAQ-30 Target Sight Systems, 30 629F-23 Ultra High Frequency/Very High Frequency Communication Systems, 19 H-764 Embedded Global Positioning System/Inertial Navigation Systems, 32 Helmet Mounted Display/Optimized Top Owl, 17 APX-117A Identification Friend or Foe, 17 AN/AAR-47 Missile Warning Systems, 17 AN/ALE-47 Countermeasure Dispenser Sets, 18 AN/APR-39C(V)2 Radar Warning Receivers, 15 Joint Mission Planning Systems, and 17 M197 20mm Gun Systems. Also included are system integration and testing, software development and integration, aircraft ferry, support equipment, spare and repair parts, tools and test equipment, publications and technical documentation, personnel training and training equipment, U.S. government and contractor engineering, technical, and logistics support services, and other related elements of logistics and program support. The total estimated cost is $952 million.

This proposed sale will provide Pakistan with a precision strike, enhanced survivability aircraft that it can operate at high-altitudes. By acquiring this capability, Pakistan will enhance its ability to conduct operations in remote and mountainous areas in all-weather, day-and-night environments.

Kyriazis Vasileios,
Epicos Newsletter Head Editor

Epicos "Industrial Cooperation and Offset Projects"

Epicos "Industrial Cooperation and Offset Projects" provides a unique set of online tools enabling the structure, identification and implementation of comprehensive Offsets programs, through a searchable database. By introducing different offset projects and ideas proposed by local A&D industry it ensures the optimum cost for Prime Contractors and reassures that the priorities of local industry are fully met…

For Further Information Press Here

Development of an automatic precision landing parachute supply system for military and humanitarian applications

A company which focuses on the development and manufacturing of aerospace instruments and onboard aircraft systems proposes the development of an Autonomously Guided Precision Airdrop System "AmPad" to be used by various tactical transportation aircraft and helicopters. This system ensures precision airdrops for Military and/or Humanitarian Missions.

For Further Information Contact our ICO Department
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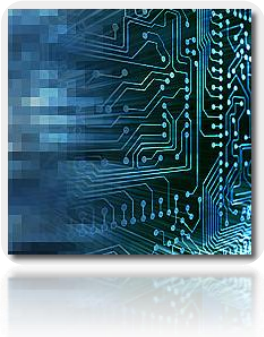
File and data security system for a large organization



The proposed project involves the development, parameterisation and installation of a file and data security software system, designed to address the needs of large organizations, either of a private or a public nature (e.g. Ministry of Defence), which wish to protect their data (e.g. as stored on the organisation's internal network) from potential leakage. The proposed system will assure that information in those files can only be read, copied or modified by users with sufficient/appropriate rights.

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Embraer delivers milestone Phenom family jet to NetJets

Embraer Executive Jets delivered today the 100th Phenom family jet produced in Melbourne, Fla., just over three years after the first aircraft rolled off this facility's assembly line. The commemorative aircraft, a NetJets Signature Series Phenom 300, was delivered to NetJets® Inc., a Berkshire Hathaway company and will be part of the company's European fleet. "The delivery of the 100th Phenom jet made in Melbourne confirms our customers' appreciation for revolutionary aircraft, like the Phenom 300," said Marco Túlio Pellegrini, President & CEO, Embraer Executive Jets. "We are very pleased to deliver this milestone Phenom 300 to NetJets, which underscores the value of our strategic partnership."

NetJets and Embraer signed an original purchase agreement for 50 Phenom 300 firm orders and 75 options, in October 2010. The total value of the deal may exceed US$ 1 billion, if all options are exercised. In December 2014, an agreement to convert 10 Signature Series Phenom 300 purchase options into firm orders was signed by both parties. Embraer has now delivered 40 Signature Series Phenom 300 to NetJets. These aircraft operate in the NetJets fleet, with fractional owners in the U.S. and Europe.

"The Signature Series™ Phenom 300 has proven itself to be a success in meeting our expectations, and more importantly, the expectations of our customers,," said Chuck Suma, Senior Vice President of Global Asset Management, NetJets Inc. "The Phenom 300 is the best-selling aircraft in our fleet, and as we accept delivery of our 40th jet, we look forward to continue to bring them into our fleet."

The Phenom 300 is in operation in the corporate and fractional markets, having become the most delivered business aircraft in 2014, for the second consecutive year. The Phenom 300 has accrued a 57% market share in the light jet category, just five years after entering into service.

The Melbourne facility began operations in 2011, with the assembly of the Phenom 100, and the first aircraft was delivered in December of the same year. Production of the Phenom 300 at this facility began in August 2012, and the first delivery took place in December of the same year.

About NetJets

NetJets® Inc., a Berkshire Hathaway® company, is the worldwide leader in private aviation with the largest and most diverse private jet fleet in the world. NetJets began in 1964 as the first aircraft charter and management company in the world. In 1986, NetJets pioneered the

concept of fractional aircraft ownership – offering individuals and businesses all of the benefits of whole aircraft ownership and more, at a fraction of the cost. Today, NetJets offers a full range of private aviation solutions through its programs in North America and Europe, including NetJets Shares™, NetJets Leases™ and the Marquis Jet Card®, which provides access to NetJets through a 25-hour jet card.

The North America program is managed and operated by NetJets' subsidiary NetJets Aviation, Inc., and the European program is managed and operated by NetJets Transportes Aereos, SA, a Portuguese/EU Air Carrier. In the United States, NetJets also offers aircraft management and on-demand charter services through its subsidiary, Executive Jet Management, Inc. Subject to obtaining relevant regulatory approvals, NetJets will also offer aircraft management and charter services in China through NetJets China Business Aviation Limited, a joint venture between NetJets and a consortium of Chinese investors. The NetJets companies offer worldwide flight operations. More information on NetJets, NetJets Europe, the Marquis Jet Card, and Executive Jet Management is available at http://www.netjets.com.

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About the Phenom 300

The Phenom 300 performs among the top light jets, with a high speed cruise of 453 knots and a six-occupant range of 1,971 nautical miles (3,650 km) with NBAA IFR reserves. This range allows nonstop flights from Miami to Telluride, or Los Angeles to Orlando. With the best climb and field performance in its class, the Phenom 300 costs less to operate and maintain than its peers. The aircraft is capable of flying at 45,000 feet (13,716 meters), powered by two Pratt & Whitney Canada PW535E engines with 3,200 pounds of thrust each.

The Phenom 300 offers a spacious cabin, designed in partnership with BMW Designworks USA, and the largest baggage compartment in its category. The largest windows in the class deliver abundant natural lighting in the cabin as well as in the private lavatory in the back of the aircraft. The comfort of the seats, with recline and full movement capability, is enhanced by the best pressurization among light jets (6,600 ft. maximum cabin altitude). The Phenom 300 features distinct temperature zones for pilots and passengers, a wardrobe and refreshment center, voice and data communications options, and an entertainment system.

The pilot-friendly cockpit enables single-pilot operation and offers the advanced Prodigy Touch Flight Deck option. The features it carries from a class above include single-point refueling, externally serviced lavatory, and an air stair.

About Embraer Executive Jets

Embraer is one of the world's leading executive jet manufacturers, having entered the business aviation market in 2000 with the Legacy jet, which led to the launch of Embraer Executive Jets in 2005. Its portfolio, the broadest in the market, consists of the entry-level Phenom 100E and the Phenom 300 light jet, the Legacy 500 midsize and Legacy 450 mid-light, the super midsize Legacy 600 and large Legacy 650, and the ultra-large Lineage 1000E. Completing ten years in the market, Embraer Executive Jets' global fleet exceeds 850 aircraft, which are in operation in more than 60 countries and are supported by the Company's global Customer Support and Services network of close to 75 owned and authorized service centers, complemented by a 24/7 Contact Center, at its headquarters, in Brazil. For more information, please visit www.embraerexecutivejets.com.

Follow on Twitter: @EmbraerSA

NASA Extends Lockheed Martin Contract to Prepare Critical Cargo for the International Space Station

Lockheed Martin will plan, process and pack a steady supply of cargo for the International Space Station (ISS)—ranging from science hardware to food and the crew's personal items—under an extension of NASA's Cargo Mission Contract. Currently, Lockheed Martin maintains more than three million items destined for the station. The team exports and ships about 25,000 pounds of cargo to launch locations around the world annually, including the United States, Russia, Kazakhstan and Japan. The company also processes flight crew equipment, which includes buying, maintaining and preparing items for the ISS crew such as clothing, housekeeping and personal care items, laptop computers and audio-visual equipment.

"The Lockheed Martin cargo mission team has responded with flexibility and ingenuity to changes in manifests to keep the space station crew supplied with critical items and support scientific research," said Art Ibers, Lockheed Martin vice president for Exploration and Mission Support.

The one-year extension is valued at $23 million. This is the second of four options in the original Cargo Mission Contract awarded in December 2010.

Lockheed Martin also supports NASA's Johnson Space Center in Houston with systems engineering and analysis, control center design, development and operations, life sciences services, human in-the-loop simulations, and a broad range of engineering, science and technical services activities.
Headquartered in Bethesda, Maryland, Lockheed Martin is a global security and aerospace company that employs approximately 112,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. The Corporation's net sales for 2014 were $45.6 billion.

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Epicos Newsroom

Boeing Receives 2015 ENERGY STAR Partner of the Year Award

The U.S. Environmental Protection Agency (EPA) is recognizing Boeing's leadership in energy conservation and efficiency with an ENERGY STAR Partner of the Year – Sustained Excellence award.

Boeing is among 13 ENERGY STAR Partners of the Year in the Industrial category for sustained excellence to be honored by the EPA during an awards ceremony on April 20 in Washington, D.C. This is the fifth consecutive year Boeing has been recognized by ENERGY STAR.

"ENERGY STAR's acknowledgment reflects our employees' commitment to continuous improvement," Boeing Chairman and CEO Jim McNerney said. "Just as we seek to improve our workplace and product quality, safety and efficiency every day, we also strive to improve our environmental performance. For example, even as we continue to increase our commercial-airplane production rates, we are holding the line on our energy consumption, and our Renton site is now powered 100 percent by renewable energy. More broadly, we are reaching into global educational communities with an effective conservation curriculum, and we continue to invest in our infrastructure to reduce our overall energy use across the company."

Boeing's key 2014 accomplishments include:

- Improving energy intensity by 1.8 percent over the prior year and a cumulative improvement of 32 percent since 2009.

- Participating in the ENERGY STAR Community World Tour by developing and teaching an energy curriculum to 650 middle school students.

- Making energy infrastructure investments to reduce energy use, including the largest single lighting retrofit of more than 5,100 fixtures.

- Contributing funding to 13 community conservation projects around the world such as training at-risk youth for energy conservation jobs.

- Leveraging the company's Partner of the Year and EPA Climate Leadership Award recognition to share Boeing's energy conservation message at numerous conferences and with key industrial and governmental bodies.

"Through its sustained participation with ENERGY STAR, Boeing is helping Americans save money, save energy, and is doing its part to reduce our nation's greenhouse gas emissions that fuel climate change," said EPA Administrator Gina McCarthy. "I applaud Boeing for earning EPA's highest ENERGY STAR award, the 2015 Partner of the Year – Sustained Excellence Award, demonstrating a strong commitment to energy efficiency and to preserving a healthy planet for future generations."

Award winners are selected from the 757 industrial partners that participate in the ENERGY STAR program. Learn more about Boeing's environmental leadership at www.boeing.com/environment.

Boeing is the world's leading aerospace company and the largest manufacturer of commercial jetliners and military aircraft combined. Additionally, Boeing provides products and support services to customers in 150 countries and is one of the largest U.S. exporters in terms of sales. With headquarters in Chicago, Boeing employs more than 163,000 people across the United States and in more than 65 countries. Total company revenues for 2014 were $90.8 billion.

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Source: Epicos, Boeing

Thales Wins 1st Taiwanese Light Rail Transit Contract in New Taipei City Township of Danhai

Thales was awarded a €17 million contract for the design and manufacture of signaling, communications and Operational Control Centre (OCC) systems for the Danhai Light Rail Transit project, Taiwan's second Tramway line and one of the first Tramway projects in Asia Pacific.

Taiwan's local industry giant China Steel Corp. along with its subsidiaries United Steel Engineering & Construction Corp. and Taiwan Rolling Stock Co., will construct Danhai's Light Rail Phase 1 Corridors, including the Green Mountain Line (11 stations), a section of Blue Ocean Line (3 stations) and a depot. This project, expected to be completed in 2018, will run a total of approximately 10 km.

In undertaking this project, the New Taipei City government is preparing its public transportation infrastructure in anticipation of expected population growth, Danhai being in close proximity to Taiwan's capital city Taipei. Today, the government has further plans to build over 4 other similar lines in the next 4 to 7 years.

The Danhai project is the first to employ a local Taiwanese solution to which Thales will bring its global expertise and knowledge of critical rail system solutions.

Thales, a leader in cutting-edge urban transportation technology, has already delivered numerous metro projects in Malaysia, Hong-Kong, Singapore, Thailand, Japan, and China.

This first LRT project in Taiwan therefore represents a key milestone for Thales extending its footprint in Asia.

For Further Information Click Here

Source: Epicos, Thales

Leading Chinese Appliance Manufacturer Adopts Honeywell Low-Global-Warming-Potential Insulation Material

Honeywell announced today that Hisense, a leading Chinese appliance manufacturer, will begin using Honeywell's low-global-warming-potential (GWP) insulation materials in its refrigerators and freezers to reduce the global warming impact of its insulation while increasing its energy efficiency.

Hisense, which sells appliances globally under the Hisense and Hisense-Kelon brands, will implement Honeywell's Solstice® Liquid Blowing Agent (LBA) widely.

Solstice LBA is a non-ozone-depleting blowing agent that has an ultra-low global warming potential of 1, which is 99.9 percent lower than HFC-245fa, a commonly-used blowing agent. Blowing agents allow closed-cell polyurethane foam insulation, used in the walls of refrigerators and freezers, to expand while providing the majority of the foam's excellent insulating properties.

"Solstice LBA can help appliance manufacturers achieve an 8 to 10 percent improvement in energy efficiency compared with alternative blowing agents," said Sanjeev Rastogi, business director for Honeywell Fluorine Products. "Hisense's decision to adopt this new blowing agent demonstrates their innovation leadership in the appliance industry and builds on the long-standing strategic partnership between our two companies."

Hisense was the first Chinese appliance manufacturer to adopt Honeywell's prior-generation Enovate® 245fa blowing agent, which provided Hisense refrigerators and freezers with improved energy performance and reduced ozone impact.

"We are excited to lead the way again by implementing Honeywell's innovative and cost-effective low-GWP Solstice LBA at manufacturing locations in China. Through this collaborative effort, we stand at the forefront of the latest global technologies and we are helping advance environmentally-preferable technology in China," said Hisense.

Chinese manufacturers produce about 90-100 million refrigerator and freezer units per year, more than half of the total number of refrigerators and freezers produced globally.

Solstice LBA is being adopted rapidly across the globe. To date, nine residential and commercial appliance manufacturers worldwide have adopted Solstice LBA to meet or exceed environmental and energy efficiency regulations.

Solstice LBA is non-flammable and can help appliance manufacturers achieve an 8 percent to 10 percent energy efficiency improvement compared with cyclopentane, which is flammable and widely used as a blowing agent in appliance insulation.

Solstice LBA is approved by the U.S. Environmental Protection Agency under the Significant New Alternatives Policy (SNAP) Program and is also registered under the European Union's REACH program. It is not a volatile organic compound. Honeywell's new world-scale production capacity manufacturing plant for Solstice LBA started up in May 2014 in Louisiana, United States, to meet the rapid increase of global demand.

Blowing agents from Honeywell can be used in a wide range of applications, including spray foam insulation, household refrigerators and freezers, insulated architectural panels, and refrigerated shipping containers.

In addition to Solstice LBA, Honeywell's family of Solstice-branded products includes stationary and mobile refrigerants, gaseous blowing agents, propellants, and solvents based on Honeywell's new hydrofluoro-olefin technology that helps customers lower their carbon footprint without sacrificing end-product performance.

Honeywell's Fluorine Products business is a leader in the manufacture and supply of non-ozone-depleting refrigerants used by top air-conditioning and refrigeration makers worldwide, and blowing agents for energy-efficient foam insulation, as well as hydrofluoric acid and precursors for nuclear fuel.

Honeywell Performance Materials and Technologies (PMT) is a global leader in developing advanced materials, process technologies and automation solutions. PMT's Advanced Materials businesses manufacture a wide variety of high-performance products, including environmentally friendlier refrigerants and materials used to manufacture end products such as bullet-resistant armor, nylon, computer chips and pharmaceutical packaging. Process technologies developed by PMT's UOP business (www.uop.com) form the foundation for most of the world's refiners, efficiently producing gasoline, diesel, jet fuel, petrochemicals and renewable fuels. PMT's Process Solutions business (www.honeywellprocess.com) is a pioneer in automation control, instrumentation and services for the oil and gas, refining, pulp and paper, industrial power generation, chemicals and petrochemicals, biofuels, life sciences, and metals, minerals and mining industries.

Honeywell (www.honeywell.com) is a Fortune 100 diversified technology and manufacturing leader, serving customers worldwide with aerospace products and services; control technologies for buildings, homes and industry; turbochargers; and performance materials. Based in Morris Township, N.J., Honeywell's shares are traded on the New York, London, and Chicago Stock Exchanges. For more news and information on Honeywell, please visit www.honeywellnow.com.

Source: Epicos, Honeywell

Deepening Swedish-Brazilian innovation opportunities

For over 70 years aeronautics has been a key technology driver in Sweden, leading to numerous spin-offs. This has also been the case for Brazil. Academic-industrial cooperation has played a large role in this success and continues to do so.

Last week marked a new milestone within this bilateral cooperation between academia and industry within Sweden and Brazil. Marcus Wallenberg, chairman of Saab AB, and Lennart Sindahl, Deputy CEO, met the President of Brazil, Dilma Rousseff and the Brazilian Minister of Defense, Jaques Wagner to present a professor chair (academic position) for Swedish Aeronautical Professors in Brazil.

The professor chair, dedicated to the late Peter Wallenberg Sr., enables the establishment of a Swedish academic presence in Brazil.

“The chair will be a platform for the most prominent and entrepreneurial Swedish professors in the aeronautical field to cooperate on research, education and innovation projects with Brazilian counterparts with ITA as the hub and focal point”-Marcus Wallenberg, Chairman Saab AB.

The chair will be based at the Instituto Tecnológico de Aeronáutica (ITA) within Comando da Aeronáutica (COMAER). The Swedish professors will stay in Brazil for two to six months a year, in order to deepen bilateral cooperation in research projects, education and innovation within aerospace technology – an area of interest for both countries.

The gift is the product of a partnership between Saab and the CISB (Centro de Pesquisa e Inovação Sueco-Brasileiro-the Center of Swedish-Brazilian Innovation) in association with Chalmers University of Technology, the Swedish Royal Institute of Technology and Linköping University.

This new initiative is one of many clear steps towards a long-term strategy of close cooperation between the two countries. It is also a part of the strategic program ‘INNOVAIR’ that aims to tighten the links between academics, government and industry in Brazil and Sweden.

Innovating for success
Sweden is world leading within innovation and ranks among the top countries in the world with the most international companies per capita. For years, Swedish export success has been the product of sustainable investment in research and development (R&D), cooperative efforts between the government, industry and academia (triple helix), an open innovation culture and strong global industrial presence.

R&D is an important part of Saab’s competitiveness – currently the company reinvests 27 percent of turnover back into R&D. For years Saab has been first to the market with many products and solutions that are now industry standard.

Facts

INNOVAIR

INNOVAIR is Sweden's national strategic innovation program for aeronautics. The program coordinates and supports stakeholders from industry, universities, institutes, associations and government agencies active in the aerospace sector. The main objective is to promote favorable conditions for a strong aerospace industry in Sweden and to strengthen the aerospace sector through increased collaboration, research and information dissemination.

Sweden – Brazil academic industrial partnership timeline

A bilateral ambition was initiated before and in parallel with the Gripen negotiations to find new innovative ways to collaborate in aeronautics and innovation:

2009 – SE-BR Memorandum of Understanding signed for cooperation in High-Tech Innovation
2010 - Vinnova starts funding Swedish-Brazilian pre-study projects
2011 - CISB is founded by Saab and partners in Sao Paulo
2012 - CNPq, CISB and Saab launch an Industrial Guest Researcher Scholarship Program
2014 - Swedish and Brazilian Ministers of Defence sign framework agreement
2014 - ITA propose a bilateral research initiative
2014 Nov – CISB & ITA arrange first workshop in Aeronautics & Defence, with more than 500 participants
2014 Nov - CISB initiates 27 Brazilian Swedish pre-studies to develop Aeronautical Research and Innovation projects

Source: Epicos, SAAB

Star Air to upgrade Boeing 767 fleet with Rockwell Collins' large-format flight displays

Rockwell Collins' large-format flight displays, inspired by the same display system found on Boeing 787 Dreamliner airplanes, have been selected by Denmark-based Star Air for its fleet of 11 Boeing 767-200BDSF cargo airplanes.

The new flight deck, a collaboration between Rockwell Collins and Boeing for the 757 and 767 aftermarket, brings a series of innovative technologies that dramatically enhance situational awareness, decrease maintenance costs and improve fuel efficiency. The flight deck retrofit solution received initial certification in 2014.

"Since first deliveries to our launch customer, we're seeing the momentum building for the 757/767 flight deck upgrade with domestic and international operators," said Steve Timm, vice president and general manager, Air Transport Systems for Rockwell Collins. "It significantly extends the life of these aircraft while adding new capabilities to meet future airspace requirements, and pilots will benefit from a much more engaging visual environment and intuitive interface."

Installation and subsequent European Aviation Safety Agency (EASA) certification of Star Air's flight display retrofit will begin later this year.

"We selected the large-format display solution from Rockwell Collins for our fleet of 767-200 freighters because we are confident that the upgrade will provide full compliance not only with current, but also with future avionics requirements," said Carsten Hvidegaard Holm, vice president, Technical for Star Air A/S. "The commonality with the Boeing 787 Dreamliner, 737 MAX and 777X was a key selling point for us during the decision process as we feel it will ensure future system support and updates. The large-format flight displays will also provide us with a significant weight savings, and it will have a positive effect on our dispatch reliability allowing us to serve our customers even better than today."

The 757/767 upgrade features three large-format 15.1-inch LCD displays that replace six cathode ray tube (CRT) displays and numerous analog instruments to provide operators with a number of benefits, including:

- The only Boeing and Rockwell Collins-supported retrofit 757/767 display system
- The only display retrofit available with engine-indication and crew-alerting system (EICAS) data on LCD displays
- Maintenance savings driven by significant increase in new display system reliability
- Improved fuel efficiency from 150-pound flight deck weight reduction
- A platform to incorporate future safety-enhancing technology such as airport taxi maps, data link weather, surface guidance, and synthetic and enhanced vision systems
- Aircraft life extension by proactively managing CRT obsolescence
- Aligns with Boeing flight deck philosophy on its most modern aircraft, including Boeing 787 Dreamliner, 737 MAX and 777X aircraft.

In addition, Rockwell Collins' Head-up Guidance System (HGS™) is available for the Boeing 757/767 aftermarket, which further enhances situational awareness and provides more efficient operations through all phases of flight, including departures and approaches in low-visibility conditions, thunderstorm diversion, and quick, at-a-glance flight path monitoring.

About Rockwell Collins

Rockwell Collins is a pioneer in the development and deployment of innovative communication and aviation electronic solutions for both commercial and government applications. Our expertise in flight deck avionics, cabin electronics, mission communications, simulation and training, and information management is delivered by a global workforce, and a service and support network that crosses more than 150 countries. To find out more, please visit www.rockwellcollins.com.

Source: Epicos, Rockwell Collins