MRO BUSINESS TODAY



July 1st, 2017

# **Rolls-Royce to invest £150m** in UK aerospace facilities

Rolls-Royce has announced a £150m investment in new and existing civil aerospace facilities in the UK to support the planned doubling of engine production and deliver on our record civil aerospace order book. The investment, which will be made over the next few years, is part of Rolls-Royce's constant industrial transformation.

The majority of the investment, which is in-line with the Group's ongoing planned expenditure, will offer a new facility for the testing of large civil aero engines in Derby, the home of Rolls-Royce's civil aerospace division. The new testbed will be capable of testing a range of engines including the Trent XWB, which powers the Airbus A350 XWB and is the world's fastest selling civil large engine with over 1,600 on order from 45 customers in 31 countries.

There will also be investment in large engine Maintenance Repair & Overhaul (MRO) facility in Derby, as well as in manufacturing facilities in Derby and Hucknall, Nottinghamshire.

A constructive dialogue with senior union representatives in the UK has underpinned the decision to invest in Derby, helping to sustain more than 7,000 Rolls-Royce jobs across the East Midlands and facilitating the ramp-up in engine production.

Eric Schulz, Rolls-Royce, President – Civil Aerospace, said, "This investment comes at a time of unprecedented growth in Rolls-Royce. We are doubling the production of new engines at the same time as introducing three new engines to the market. With this investment, we are creating the capacity and flexibility to deliver on our goals, while committing to sustain employment in the UK and I would like to thank the unions for their support in delivering this important package of investment."

Business Secretary, Greg Clark MP, said, "This announcement underpins the critical role the UK plays within the global aerospace sector. The UK and Rolls-Royce are known throughout the world as pioneers of advanced engineering technology. I welcome the confidence the company is showing in the UK. This is just the type of investment our modern Industrial Strategy is looking to attract. These new facilities are good news for Rolls-Royce, its UK suppliers and our economy."

Simon Hemmings, Unite Union Chief Staff Negotiator for Rolls-Royce (Derby & Hucknall), said, "This is a great news story that allows us to focus on the future rather than the past. The agreement we've reached shows how companies and trade unions can work together differently to deliver the investment and productivity improvements needed to secure the success of a business for the next generation."

## MTU Maintenance Canada and Volaris sign a five-year engine accessories agreement

MTU Maintenance, one of the world's leading providers of commercial engine maintenance services, and Mexican ultra-low-cost airline Volaris have signed an exclusive five-year agreement for the management of the carrier's V2500 engine accessories. The agreement covers accessory repair and coordination during engine shop visits on a fixed-price basis. Services will be performed at MTU's Maintenance accessory repair centre of excellence in British Columbia, Canada. This new agreement builds on the great business relationship that the two companies have shared since 2013.

Volaris is a Mexican airline with more than 60 destinations in Mexico, the U.S. and Central America. Founded in 2003 and beginning commercial flights in 2006, the airline possesses the youngest fleet in Mexico. It is the second largest airline in Mexico and has achieved a market share of 27 percent over the last decade.

MTU Maintenance is the world's largest service provider for the V2500 family of engine models with over 4,300 shop visits on the engine family since 1989. As part of its broad engine services, MTU Maintenance offers specialized LRU and accessory management and support. Its in-house repair and test capabilities range from fuel components such as pumps, fuel controls, actuators and electrical components to pneumatic components that include valves and starters.

## SpiceJet to acquire 50 Q400 turboprops aircraft

SpiceJet, a low-cost airline headquartered in Gurgaon, India has decided to spend $1.7 billion on 50 Q400 turboprop airliners from Bombardier Commercial Aircraft.

The airline signed a letter of intent (LOI) during the International Paris Air Show. The LOI includes 25 Q400 turboprops and purchase rights on an additional 25 aircraft. This would be the single biggest order for the Q400.

"I am delighted to announce this new order for 50 Q400 planes. SpiceJet operates India's largest regional fleet and is the only organized operator in this space. This order will help us further increase connectivity to smaller towns and cities and help realise Prime Minister Narendra Modi's vision of ensuring that every Indian can fly," said Ajay Singh, chairman and managing director, SpiceJet. "Our passengers will be able to fly to more cities and help expand India's already booming aviation market."


"I congratulate SpiceJet on this new order for 50 Q400 planes. This latest aircraft order by SpiceJet, which has been an enthusiastic supporter and participant of India's regional connectivity scheme, will help further take forward the government's vision to provide air connectivity to the common man. It is also a testament to the huge demand for air travel in the smaller towns and cities of India," said RN Choubey, Secretary, Ministry of Civil Aviation.

"We are proud to sign this agreement as it is another demonstration of the Q400's superiority in the turboprop market. When finalized, the repeat order will increase the Q400 aircraft fleet in the fast-growing market in the Asia-Pacific region and will launch the high-density 86-passenger model of the Q400 aircraft in India," said Fred Cromer, President, Bombardier Commercial Aircraft. "This is also compelling evidence that the demand for turboprop aircraft is healthy in short-to medium-haul markets that can't economically support jets that are more expensive to operate."

SpiceJet operates a fleet of 35 Next-Generation 737s and 20 Bombardier Q400s. Since 2010, SpiceJet has taken delivery of 15 Q400 aircraft. The airline at present operates 20 Q400 aircraft in a 78-seat configuration to domestic and international destinations. When completed, this fleet expansion will offer SpiceJet the ability to expand profitably and leverage the robust demand forecast in the world's fastest growing regional aviation market.

Bombardier's Q Series turboprops and CRJ Series regional jets have made major advances in the Asia-Pacific region where around 190 aircraft – including more than 165 Q Series turboprops — are in service with or on order by over 25 customers and operators. Bombardier has recorded firm orders for a total of 585 Q400 aircraft.

# Asiana Airlines selects Honeywell's 131-9A APUs

Asiana Airlines, headquartered in Seoul, South Korea has selected Honeywell to supply the necessary power to start an aircraft's main engines and run air conditioning while the plane is on the ground for a more comfortable passenger onboarding experience. With Honeywell's auxiliary power units, Asiana Airlines can also enhance operational performance and lower maintenance costs over the life cycle of its fleet to attain noteworthy fuel savings year over year.

An auxiliary power unit (APU) is a vital aircraft component that offers major or backup electrical power for environmental, cockpit and hydraulic systems during flight. Honeywell will supply its 131-9A APUs to 74 Asiana Airlines aircraft, of which 49 will be retrofitted on the airline's existing Airbus A320ceo (current engine option) and A321ceo fleet, and the remaining 25 on its new Airbus A321neo fleet. The 131-9A series helps reduce delays and flight cancellations to keep airlines on schedule and make sure their passengers reach their destinations on time.The retrofit programme for the Airbus A320ceo and A321ceo fleet will run from 2017 until 2020, while delivery for the new Airbus A321neo fleet is scheduled from 2019 until 2025.

"As demand for air travel in the Asia Pacific region increases, it is crucial for airlines to remain competitive by balancing a smooth, on-time flight experience for passengers with reduced operational costs to boost the bottom line," said Dong-Jun Shin, general manager, Aircraft & Supplies Purchasing, Asiana Airlines. "We are confident that Honeywell, which has more than 50 years of proven reliability developing APUs, will help us achieve this balance."

"In today's highly competitive airline industry, companies like Asiana Airlines need to increase the cost efficiency of maintenance services, while ensuring safety and reliability are not compromised," said Brian Davis,vice president, Airlines, Asia Pacific, Honeywell Aerospace. "We are committed to understandingour customers' specific challenges, and we are confident that our 131-9A APUswillhelp Asiana Airlines and othersimprove their fleetavailability."

Honeywell will supply Asiana Airlines a worldwide network of maintenance services from its local customer support team based in South Korea, together with an established APU maintenance facility in Singapore that has a strong, venerable relationship with Asiana Airlines. In March 2017, Airbus designated the Honeywell 131-9A APU as standard equipment for its A320 family of aircraft.Honeywell's APU is now recognised as the gold standard for the A320 family.

## Airbus Helicopters provides H145 with AGW of 3,800 kg

The optional increase of the Alternate Gross Weight (AGW) allows H145 operators to take off with up to 100 kg more useful load. It brings further benefit especially for law enforcement, parapublic or military missions providing the possibility to carry for example more fuel, mission equipment or passengers.

Axel Humpert, Airbus Helicopters Head of H145 Programme says, "Since the entry-in-service of the new H145 in 2014 Airbus Helicopters has continued its efforts to improve the power and performance of the aircraft according to our customers' needs. The new Alternate Gross Weight of 3,800 kg is a significant increase for a light-twin helicopter and offers real added value for H145 operators."

The AGW of 3,800 kg is connected to a provisional restricted flight envelope until 100 kg of fuel are consumed after around 20 minutes. It requires a logging of AGW times with a minor impact on Direct Maintenance Costs. The AGW does not apply to Cat. Flightswhere performance with one engine out of action is relevant.

The H145 is the most superior member of Airbus Helicopters' multi-purpose twin-engine category. The EC145/H145 family combines a total of over four million flight hours and more than 1,100 rotorcraft are in service globally. The large and flexible cabin reconfiguration, powerful engines and the most recent Helionix avionic suite with four-axis-autopilot the H145 is the aircraft of choice for a broad range of missions.

## The Iraq Ministry of Oil received the final two of four H145 helicopters last month

Airbus delivered the final two of four H145 helicopters ordered by the Iraq Ministry of Oil last month. The agreement with the South Oil Company, a government owned company of the Iraqi Ministry of Oil, was signed in June 2014. The aircraft will be mainly operated from Baghdad and in the province of Basrah, supporting a variety of missions including surveillance, EMS and Passenger Transport.

# Boeing, Georgia Tech Unveil Advanced Development Research Center

*Vinh Nguyen (foreground, left), a graduate research assistant in mechanical engineering at the Georgia Institute of Technology, describes the process used to machine the surface of an aluminum block to Greg Hyslop, Boeing's chief technology officer and senior vice president, at the company's new manufacturing development center in Atlanta. Boeing is collaborating with Georgia Tech*

Boeing, an American multinational corporation that designs, manufactures, and sells airplanes, rotorcraft, rockets, and satellites worldwide and Georgia Institute of Technology launched a new advanced development research centre that will deal with some of the toughest technical challenges in manufacturing.

The Boeing Manufacturing Development Center (BMDC), located in the new 19,000-square foot Delta Advanced Manufacturing Pilot Facility at the university, will allow Boeing researchers and Georgia Tech engineering students to work alongside on implementing automation in industrial applications.

"This advanced center will let Georgia Tech students collaborate with Boeing engineers to help drive the development of innovative factory automation solutions in aerospace," said Greg Hyslop, Boeing chief technology officer and senior vice president of Engineering, Test & Technology.

"Georgia Tech's long and productive relationship with Boeing includes immersive educational support for our students, collaborative research, and development of aerospace innovations," said Steve Cross, Georgia Tech executive vice president for Research. "Our relationship is an exemplar for industry-university engagement as we meet jointly shared aspirations for the future of education and the advancement of technology."

One of the first research projects at the BMDC will focus on using industrial robotics for machining and fabrication applications that can be applied to the manufacturing processes at Boeing.

For more than 25 years, Boeing has supported a variety of manufacturing research activities at Georgia Tech, such as developing control systems on cranes and mobile platforms, and active flow control for aircraft wing tips.

## South Korea Coast Guard receives second S-92® helicopter from Sikorsky


The South Korea Coast Guard has taken delivery of its second S-92® helicopter for search and rescue from Sikorsky.

The South Korea Coast Guard has operated a single S-92 helicopter since March 2014. Up to now, that aircraft has flown more than 850 flight hours, saving more than 30 lives flying search and rescue and emergency medical transport missions.

Most recently, on June 2, a 50-year old man was rescued from a ship by the Korea Coast Guard's S-92 helicopter. A dispatched crew responded to the distress call, reached the victim, and safely transported him to a hospital for care in just 30 minutes. The victim is recovering.

"The safety and performance of our current S-92 aircraft has truly provided reliability when it comes to the time-sensitive mission of saving lives," said the South Korea Coast Guard's Senior Superintendent and Factory Acceptance Test Inspection Team Lead, Kim Young-mo. "We look forward to putting this new aircraft into operations to continue performing our mission."

"We are honored by your trust in Sikorsky and in our S-92 helicopter when performing these critical missions," said Audrey Brady, general manager, Sikorsky Coatesville Operations. "We look forward to continuing our relationship and, as always, we are committed to providing world class support to your fleet."

Following the aircraft's shipment to South Korea, aircrews will conduct training in-country. The aircraft is expected to enter service by the end of this year.

Since 2004, Sikorsky has delivered more than 275 S-92 helicopters, mostly to operators serving the global offshore oil and gas industry, and for civil search and rescue operations. Eleven nations fly the S-92 helicopter for their head of state missions. In May 2014, Sikorsky was selected to build the next U.S. Presidential Helicopter Fleet, the world's most highly developed executive transport helicopter, using the S-92 platform.

## Boeing wins order from Tassili Airlines for three next-generation 737-800s at the 2017 Paris Air Show

Boeing and Tassili Airlines, a passenger airline based in Algiers, Algeria announced an order for three Next-Generation 737-800 airplanes, valued at over $294 million at list prices, during the 2017 Paris Air Show. The order was previously attributed to an unidentified customer on Boeing's Orders & Deliveries website.


"The 737 has played a critical role in the development of Tassili Airlines. We have grown from an oil charter operation to become a scheduled passenger airline, connecting North Africa with mainland Europe," said Belkacem Harchaoui, chief executive of Tassili Airlines. "This order signifies an important next step in the development of the airline as we look to the future, adding additional capacity on to existing and new routes across the Maghreb, into France and beyond."

The 737-800 is one of the best-selling versions of the Next-Generation 737 family. Tassili Airlines' new 737s will feature the Boeing Sky Interior, the 787 Dreamliner inspired cabin. On board, passengers will enjoy a greater sense of spaciousness with enhancing sculpted sidewalls, larger window reveals, LED mood lighting and larger pivot overhead stowage bins.

"We are pleased that Tassili Airlines continues to show its commitment to the 737 following its first order with us for four 737-800s which delivered in 2011," said Van Rex Gallard, vice president of Sales for Africa, Latin America and the Caribbean, Boeing Commercial Airplanes. "The 737's unmatched performance and dispatch reliability are crucial for Tassili's scheduled and charter operations, flying to and from a very challenging environment across North Africa."

# LOT Polish Airlines, Jazz Technical Services, GKN Aerospace and FSTC announce service deals with Bombardier for CRJ and Q Series aircraft operators

Bombardier Commercial Aircraft announced four transactions pertaining to its Customer Services offerings during the International Paris Air Show. These transactions showcase the work that Bombardier is doing to enhance support to more than 240 operators and the global fleet of over 2,700 Bombardier commercial aircraft serving approximately 200 million passengers annually. Managed under the portfolio of The Bombardier FlightAdvantage, operators are deriving the supreme benefits that come with working alongside the team that knows the company's commercial aircraft best.

LOT Polish Airlines Signs Smart Parts Component Management Agreement

LOT Polish Airlines has signed a five-year Smart Parts contract with Bombardier to offer long-term component management for the airline's fleet of 10 Q400 aircraft. The Smart Parts programme offers LOT with complete component maintenance, repair and overhaul (MRO) services, access to a strategically located spare part exchange pool, and on-site inventories based at the airline's hub in Warsaw.

"LOT has been a customer of the Smart Parts program for several years, and we are pleased to enter into a new agreement knowing that we can rely on Bombardier's comprehensive and cost-effective support," said Rafal Milczarski, chief executive officer, LOT Polish Airlines.

"With this new agreement, LOT will continue to benefit from the component management solutions, superior parts availability and cost predictability that Bombardier provides via the Smart Parts program. We're very happy that we've been selected to support LOT as the airline continues to develop its Q400 aircraft network," said Todd Young, Vice President and General Manager, Customer Services, Bombardier Commercial Aircraft.

Jazz Technical Services Becomes a Canadian Authorized Service Facility for Q Series Turboprops and CRJ Regional Jets

Bombardier has improved support for operators of Q Series turboprops and CRJ regional jets by entering into a contract with Jazz Aviation LP (Jazz), a Chorus Aviation Inc. subsidiary, whereby Jazz

Technical Services (JTS) will become Bombardier Commercial Aircraft's first Authorized Service Facility (ASF) located in Canada. JTS will provide aircraft operators heavy maintenance services from its facilities located in Halifax, Nova Scotia.

"As an operator and MRO service provider of Bombardier regional aircraft for over three decades, our JTS and Maintenance and Engineering teams have exceptional expertise and experience with these Canadian-made aircraft," said Colin Copp, President, Jazz. "The announcement marks an exciting new chapter in our long-standing relationship and we look forward to collaborate on providing valued support to Bombardier aircraft operators."

"Jazz Aviation operates one of the largest fleets of Q Series and CRJ aircraft in the world and has received numerous Airline Reliability Performance Awards from Bombardier in recognition of its outstanding dispatch reliability. I am delighted that Jazz's technical division, JTS is now available to support other Q Series and CRJ aircraft operators across Canada," said Young.

Bombardier reinforces strategic alliance with GKN Aerospace's Fokker Business

Bombardier has extended and expanded its strategic alliance with GKN Aerospace's Fokker business to offer coverage for the CRJ Series regional jets. GKN Aerospace's Fokker business is thus now supporting operators of Dash 8/Q Series 100/200/300 turboprops, as well as operators of CRJ Series regional jets under Fokker's industry-leading ABACUS program. Aimed at enhancing the availability of components and reducing operators' repair and overhaul costs, the ABACUS programme provides customised services on a cost-by-the-hour basis, allowing operators to better manage the life-cycle costs of their aircraft.

"The guaranteed availability of serviceable components under the ABACUS program has been instrumental in ensuring the efficient, reliable operation of many Dash 8/Q Series 100/200/300 aircraft for more than six years, so we are pleased to extend our agreement with Fokker and to expand it to cover the CRJ Series regional jets," said Mr. Young.

"Our agreement with Bombardier to provide component repair management to operators of Bombardier Q400 aircraft, which was announced in March this year, and now our expanded support on the ABACUS program to cover the CRJ Series regional jets, signal our growing commitment to support operators of Bombardier's industry-leading aircraft," said Erik Geertsema, Vice President Business and Strategy Development at GKN Aerospace's Fokker Services business.

FSTC to Provide Q400 Aircraft Crew Training

Flight Simulation Technique Centre Pvt Ltd. (FSTC), India's biggest stand-alone diversified Approved Training Organisation, has signed a data license agreement with Bombardier, and has ordered a Q400 Full Flight Simulator from FlightSafety International to offer support to Q400 aircraft operators. FlightSafety is a world leading supplier of training services, flight simulators, visual systems and displays.

"We welcome our new partners; our collaboration will go a long way to support Q400 aircraft crew training. This will benefit operators, not only in India, but also in the region," said Sanjay Mandavia, Managing Director, FSTC. "FSTC is dedicated to delivering professional training experiences at the best prices to meet airline and individual training and rating goals, and we look forward to working with FlightSafety and Bombardier to support Q400 aircraft operators."

"We're pleased to welcome FSTC to our Customer Services network. From its base in Gurgaon, Haryana, India, the Centre is well positioned to deliver high-quality training for Q400 aircraft operators in India and the region," said Young.

## Leonardo and HENSOLDT to upgrade more than 350 UK air, land and sea platforms

Leonardo has signed a contract with the UK Ministry of Defence (MOD) worth in excess of 290 million Euros. The contract will see Leonardo and HENSOLDT, a globally leading supplier of premium sensors, working together as 'Team Skytale', upgrade the IFF (Identification Friend or Foe) technology on more than 350 of the UK's operational aircraft, naval vessels and ground-based air defence systems to the latest 'Mode-5' standard. IFF technology is central to all military operations as it acts as a modern-day 'challenge and response' password system based on automated electronic signals. This guarantees that forces can recognise friends, which when contacted will reply with the accurate signal, and identify potentially unfriendly vehicles which will not.

All NATO nations are authorised to switch to the new Mode-5 standard IFF by 2020, which uses highly developed cryptographic techniques to secure the systems against electronic deception by adversaries. This is significant when forces are operating together because ensuring that ground, air and naval crews can reliably recognise their allies is one of the main ways of avoiding so-called 'friendly fire' incidents.

Under the contract, Leonardo and HENSOLDT will upgrade legacy UK aircraft, naval vessels and ground-based air-defence systems with an out-of-service date after 2020, which covers 11 aircraft types (managed by Leonardo), 18 naval vessel types and 2 land-based platform types (managed by HENSOLDT). The team will also launch a Mode-5 IFF support hub in the UK.

Besides the NATO forces, other nations which want to carry out operations alongside NATO countries will also need to upgrade to the Mode-5 IFF standard. To address this requirement, Leonardo has signed a MoU with HENSOLDT to provide IFF upgrade solutions to customers globally. Under the agreement, the two companies will supply their combined IFF product portfolios to provide a flexible approach that can be customised to the needs of different customers.

For the UK upgrade, the team will offer Leonardo's M428 Transponder and SIT 2010 cryptographic computer and HENSOLDT's MSSR 2000 I® and MSR 1000 I Interrogator. Particularly, the team supplies the only source of cryptography key generation technology available outside of the United States, offering an entirely-European source of Mode 5 IFF capability. Because of this European design and manufacture, Mode 5 IFF technology provided by the Leonardo/HENSOLDT team is readily exportable.

Together, Leonardo and HENSOLDT are Europe's chief provider of Mode-5 IFF solutions. Leonardo has formerly delivered Mode 5 IFF for the UK Royal Air Force's Eurofighter Typhoons the Royal Navy's Queen Elizabeth-class aircraft carriers. Leonardo also offers Mode 5 IFF technology for the new Saab Gripen-E fighter and has lately demonstrated ground-breaking reverse-IFF (air-to-ground) capabilities on Italian Typhoon aircraft. The company is also presently studying this new capability for the future Eurofighter as part of a UK MoD technology demonstrator programme. HENSOLDT is under contract to upgrade German, French, US and other armed forces' platforms with Mode 5 IFF systems. The company's IFF equipment is deployed on all German Navy ships as well as several UK Royal Navy ships. HENSOLDT has also established the air traffic control/IFF network of the German Air Force.

## Rockwell Collins recognized by Airbus as a top performer for avionics support at the 2017 Paris Air Show

Rockwell Collins, a leader in aviation and high-integrity solutions was named as one of the top performing suppliers in support of Airbus and its customer airlines. The company received an Excellent In-Service Performance award and was honoured at a special ceremony at the 2017 Paris Air Show.

Out of the 41 suppliers rated in the supplier furnished equipment category, Rockwell Collins came in second after Airbus Avionics. The award followed Airbus' supplier support rating process, which drew in-service feedback on product, service, support and cost from more than 150 Airbus customers globally.

*(From Left to Right): Geneviève Laurens-Chassagne, head of supplier support management, Airbus; Scott Gunnufson, vice president, Sales, Marketing & Support, Rockwell Collins Commercial Systems; Clotilde Enel Rehel, senior director, Airbus Programs, Rockwell Collins; Philippe Mhun, senior vice president, Services, Airbus.*

"Our team has worked hard to understand what it takes to create a winning relationship with Airbus and their airline customers so they can feel confident in our systems on a daily basis," said Scott Gunnufson, vice president of Sales, Marketing and Customer Support, Commercial Systems for Rockwell Collins. "We are honored to once again be recognized by Airbus. The award is a testament to the great work carried out by our dedicated customer support team as well as all our employees around the world."

This marks the 10th year in a row that Rockwell Collins has been in the top five suppliers as recognised by Airbus.

## Eagle Services Asia selected as MRO facility in Singapore for PurePower® PW1100G-JM GTF engines

Eagle Services Asia ("ESA"), a joint venture between mainboard-listed SIA Engineering Company Limited ("SIAEC") and Pratt & Whitney, a division of United Technologies Corp., has been designated as an MRO facility in Singapore for PW1100G-JM PurePower® Geared Turbofan™ ("GTF") engines. The PW1100G-JM is one of the two engines that power the A320neo aircraft.

ESA will invest an anticipated US$85 million to provide the facility with sophisticated capabilities, such as an environment control system and an engine flowline system as well as an upgrade to its test cell to ready itself to carry out MRO services on theGTF engines.

Wong Yue Jeen, senior vice president, Partnership Management and Business Development of SIAEC, said, "The investment in the GTF engine capability is another milestone in our partnership with Pratt & Whitney, and will position Eagle Services Asia strongly to tap on growth opportunities arising from the large orders of A320neo aircraft powered by GTF engines in the region."

"Asia is home to a large base of carriers that will fly GTF-powered A320neo aircraft," said Kevin Kirkpatrick, executive director, Aftermarket Operations – Asia Pacific, Pratt & Whitney. "Expanding the MRO network to support customers in this region is a strategic decision for us."

"We congratulate SIAEC for anchoring the maintenance of the advanced GTF engines in Singapore through their joint venture with Pratt & Whitney," said Tan Kong Hwee, Director, Transport Engineering, Singapore Economic Development Board. "This new collaboration, through Eagle Services Asia, will enable SIAEC to better serve the rapidly-growing Asian market. This project will strengthen Singapore's leadership position as the MRO hub for the region, and also bring exciting job opportunities to our local workforce."

Modifications to the facility are expected to start in 2018, and GTF engine service to commence in 2019.

## Boeing, Ruili Airlines announce signing of MoU for 20 737 MAXs at the 2017 Paris Air Show

Boeing and Ruili Airlines, a Chinese low-cost airline based at Kunming Changshui International Airport announced the signing of a MoU for 20 737 MAX airplanes valued at just about $2.2 billion at current list prices at the 2017 Paris Air Show.

"We are very excited about adding more 737 MAX airplanes to our fleet," said Xie Jinguo, general manager, Ruili Airlines. "The 737 MAX's promised efficiency, reliability and passenger comfort make it a very compelling airplane for us in our domestic and regional network."

Launched in May 2014, Ruili Airlines operates a fleet of 14 Boeing 737 airplanes on 28 domestic routes with 76 daily departures. The start-up carrier plans to expand its fleet to 40 aircraft by the end of 2020.

"We have been impressed by the remarkable development of Ruili Airlines over the past three years," said Ihssane Mounir, senior vice president, Global Sales and Marketing, Boeing Commercial Airplanes. "We are honored to continue playing an important role in Ruili's long-term success with the addition of the 737 MAX. The airplanes will further strengthen Ruili's network by adding more domestic and regional routes in the years to come."

## Boeing, AerCap announce order for 15 737 MAX 10s at the 2017 Paris Air Show

Boeing and AerCap, the world's largest independent aircraft leasing company announced an order for 15 737 MAX 10s at the 2017 Paris Air Show. Under the agreement, AerCap will convert 15 of its existing 737 MAX airplanes into MAX 10s.

Aercap presently has 100 737 MAX airplanes on order. The company announced an order for a further 30 787-9 Dreamliners.

"AerCap sees the value in both our single-aisle and widebody airplanes and we're excited to have them join the launch group for the 737 MAX 10," said Ihssane Mounir, senior vice president, Global Sales and Marketing, Boeing Commercial Airplanes. "We appreciate AerCap's commitment to Boeing products throughout the Paris Air Show and endorsement of the newest member of the 737 MAX family."

Like all of Boeing's 737 MAX models, the 737 MAX 10 incorporates the most recent technology CFM International LEAP-1B engines, Advanced Technology winglets, the Boeing Sky Interior, large flight deck displays, and other improvements to deliver the highest efficiency, reliability and passenger comfort in the single-aisle market.

## SilkAir selects Rockwell Collins' Dispatch 100 avionics maintenance and support programme

SilkAir, a regional airline with its head office in Airline House in Singapore, selected Rockwell Collins' Dispatch 100? avionics maintenance and support programme for its Boeing 737 MAX fleet. As part of the agreement, SilkAir will have access to maintenance, on-site spares and shared 737 MAX support pools.

This is the first Dispatch agreement secured by Rockwell Collins for the 737 MAX platform, which features a complete suite of the company's avionics as standard including, communications, navigation, surveillance, displays and flight controls.

"Under this customized Dispatch 100 contract, SilkAir will have access to specific on-site spares to maintain flexibility and support needed for their multi-hub operation," said Thierry Tosi, vice president and general manager of Service Solutions for Rockwell Collins. "In addition, SilkAir will have access to our global component exchange spares pools maximizing its aircraft's airtime, and benefit from our service center in Singapore."

## SIA Engineering Company and GE Aviation to launch engine overhaul joint venture in Singapore

SIA Engineering Company Limited and GE Aviation have agreed to launch a new engine overhaul joint venture based in Singapore. The joint venture will supply a full range of engine maintenance, repair and overhaul (MRO) services for the GE90 and GE9X engines. The GE90 engine solely powers the Boeing 777-300ER and 777-200LR, and the GE9X engine is the only engine selection for the Boeing 777X aircraft.

The creation of the joint venture, where GE will have a 51percent equity stake in the joint venture and SIAEC holding the remaining 49percent is subject to finalisation of the definitive agreements and receipt of essential regulatory approvals.

This partnership is made possible by Singapore Airlines' announcement in February 2017 of a letter of intent for 39 Boeing widebody aircraft valued at $13.8 billion, which includes 20 777-9s powered by GE9X engines. SIA is also a key operator of GE90-powered 777-300ERs.

The joint venture will set up a state-of-the-art facility, adopting GE's "Brilliant Factory" concepts, combining advanced technologies and lean practices with digitisation and data analytics to improve productivity.

Png Kim Chiang, chief executive officer of SIAEC, commented, "SIAEC is delighted to join hands with GE in setting up a world-class facility in Singapore to provide reliable and high quality services for the latest generation of GE engines. This partnership with GE, which is a significant strategic move for SIAEC, adds to our growing portfolio of joint ventures with the world's leading aircraft and engine manufacturers."

David Joyce, President and chief executive officer of GE Aviation, said, "SIAEC is known for high-quality engine services and support, and this partnership is a natural fit for GE Aviation and SIAEC. The new Singapore MRO joint venture will ensure GE90 and GE9X operators have access to the best service and support for their engines and will further strengthen GE Aviation's presence in Singapore."

## AirAsia announced to order 14 more A320ceo at the 2017 Paris Air Show

AirAsia, a Malaysian low-cost airline headquartered near Kuala Lumpur has signed an agreement with Airbus to order a further 14 A320ceo aircraft at the 2017 Paris Air Show.


The announcement will see the total number of A320 Family aircraft ordered by AirAsia rise to 592, reaffirming its position as the largest airline customer for the Airbus single aisle product line. Thus far, 171 A320ceo and eight A320neo have already been delivered to the airline and are flying with its units in Malaysia, India, Indonesia, Thailand and the Philippines.

Tony Fernandes, AirAsia group chief executive officer said, "Demand is very strong in AirAsia's traditional countries, but now we have Indonesia, Philippines and India doing extremely well. The robust demand has led us to expand our fleet, and Airbus has been a great partner in finding us slots. We still need to find more aircraft to expand our regional reach and are actively sourcing from the leasing market. The competitive environment is at its best, coupled with a stable oil price. With the lowest cost in the world, AirAsia is back on aggressive growth."

"We are pleased to announce our latest agreement from AirAsia," said John Leahy, chief executive officer customers, Airbus Commercial Aircraft. "We are proud that the A320 Family has played an important role in the success of AirAsia, providing the efficiency and reliability needed for the airline to keep its costs as low as possible. We look forward to working with AirAsia as it continues on its exciting journey, enabling more people to fly, more often, and at affordable cost."

## SIAEC and Boeing sign MOA aircraft maintenance services

SIA Engineering Company Limited("SIAEC"), a major provider of aircraft maintenance, repair and overhaul (MRO) services in Asia-Pacific sign a Memorandum of Agreement ("MOA") with Boeing to partner on the provision of aircraft maintenance training services on existing and new generation aircraft types, including the Next-Generation 737, 777 and 787.

Under the MOA, the parties will together evaluate collaboration for SIAEC to offer aircraft maintenance training services on behalf of Boeing to airlines located in and around the high growth Southeast Asian region. This partnership builds on both parties' training networks, resources and broad experience in delivering high standards of maintenance training on the most recent aircraft types.

## UTC Aerospace Systems launches Composite Centre of Excellence in Banbury, UK

UTC Aerospace Systems, one of the world's biggest suppliers of technologically advanced aerospace and defence products is transferring knowledge used in Formula One high-performance race cars to high-performance actuation systems for commercial aerospace applications. The company established a Composite Centre of Excellence in Banbury, United Kingdom supporting the demand for lighter, stronger and low maintenance actuation system components that can be produced and delivered to customers in considerably less time than traditional manufacturing.

"The Centre is home to equipment that utilizes new technologies and an automated production line that can produce a fuel pipe in less than four minutes and with only four weeks lead time," said Edward Dryden, general manager, composite centre of excellence, UTC Aerospace Systems. "In addition, our close proximity to leading universities, research centers, a hub of Formula One manufacturers and UTC Aerospace Systems' Actuation Systems business in Wolverhampton gives us the opportunity to tap into a great knowledge base and exceptional talent pool."

The Centre is at present supplying composite fuel pipes and isolators for the carbon wings of Airbus's A350XWB. Overall, the Centre supplies more than 300 fuel pipes and 20 isolators for the wings.

"A key benefit of our composite fuel pipes and isolators is that they help protect the wing from lightning strike damage," added David Chard, business development director, composite centre of excellence, UTC Aerospace Systems. "And they are built to last the entire life of the aircraft. No maintenance is required." In addition, the pipes and isolators offer a weight savings at the aircraft level through the removal of lightning shielding. UTC Aerospace Systems will display a composite transmission shaft, fuel pipe and tie rod at the Paris Air Show."

## Transport Canada, FAA, EASA and MOLIT (South Korea) upgrade world's first CAE-built Bombardier C Series Aircraft FFS

Bombardier Commercial Aircraft and CAE, a global leader in training for the civil aviation, defence and security, and healthcare markets announced during the International Paris Air Show, that Transport Canada, the U.S. Federal Aviation Authority, the European Aviation Safety Agency and the Ministry of Land, Infrastructure and Transport of the Republic of Korea (South Korea) have qualified the world's first C Series aircraft full-flight simulator (FFS) to Level D, the highest qualification for flight simulators. The Bombardier C Series FFS, located at the Bombardier Training Centre in Montréal, Canada is the first C Series FFS to receive Level D qualification.

"This Level D qualification represents another milestone reached in the C Series aircraft program and allows pilots to complete all their training in the simulator before they fly the real aircraft," said Todd Young, vice president and general manager, customer services and Q400 Aircraft Programme, Bombardier Commercial Aircraft. "With this qualification, our simulator reproduces to the highest level of fidelity, the characteristics of the C Series aircraft, as certified by the civil aviation authorities."

"We are proud to highlight another key milestone with the achievement of the highest-level qualification for the first C Series full-flight simulator in the world," said Nick Leontidis, CAE's Group President, Civil Aviation Training Solutions. "This highlights years of collaboration with our longstanding partner Bombardier in the development of the simulator. We are honored to contribute to ensuring Bombardier customers receive the highest fidelity training for its C Series aircraft."

The C Series aircraft is manufactured by the C Series Aircraft Limited Partnership, an affiliate of the Bombardier Commercial Aircraft segment of Bombardier Inc.

## Boeing Senior VP Scott Fancher to retire after 40 years of service

Scott Fancher, senior vice president of programme management, integration and development programmes, Boeing has announced his intention to retire in September 2017, culminating a 40-year Boeing career that spans executive leadership roles across the company's signature commercial, defense and space programmes.

"Few leaders have stepped into the crucible of leading edge development programs in aerospace like Scott Fancher," said Dennis Muilenburg, Boeing chairman, president and CEO. "His depth and breadth of leadership experience across the entire company exemplifies the 'One Boeing' culture that distinguishes us as a leader in aerospace, and his record of achievement in program management stacks up with anyone in our industry. We thank him for his 40 years of service and leadership."

In his existing role, Fancher led the company-wide deployment of Boeing's development programme management system, and he structured and commenced the company's first integrated corporate function for identifying, improving and deploying programme management talent. He also propelled initiatives sponsored by Muilenburg to speed up the rate of Boeing's vertical product development, technology development, and enterprise quality and productivity initiatives.

Fancher, who joined the company as an intern in 1977, has held executive leadership roles on a broad range of breakthrough development programs across nearly every product line, technology domain and customer segment. Prior to his Executive Council role, Scott spent nearly eight years in Boeing Commercial Airplanes (BCA) where he led the teams that completed the development and entry into service of the 787, and launched the 777X. He also established the Airplane Development organisation, which restored stability and credibility to the growth of new commercial airplanes with the on-track execution of the 787-9/-10, 737 MAX and 777X.

Prior to joining BCA, Scott spent over 30 years in Boeing Defense, Space & Security (BDS). During this time he held different leadership positions including as head of the Missile Defense business and leading a series of challenging development programmes including Ground-based Midcourse Defense System (GMD) and Airborne Laser (ABL) as well as airborne reconnaissance and advanced electro-optics programmes. Scott also served a Congressional Fellowship with Sen. John Glenn.

"Scott brought a laser focus to maturing, integrating and expanding our drive toward enterprisewide excellence in managing development programs, selecting and growing program management talent, and advancing our strategic approach to innovation acceleration," Muilenburg said. "With these foundations in place and part of our daily operating rhythm and processes, Scott will be able to smoothly transition their oversight to other members of our senior executive team."

## Poonam Mohan Promoted to American Airlines VP

American Airlines, a major American airline headquartered in Fort Worth, Texas, has promoted Poonam Mohan to Vice President – Information Technology. This position was previously held by Patrick O'Keeffe, who was named American's Senior Vice President – People, in May 2017.

"With projects such as implementing critical new forecasting models and pricing tools for Revenue Management, and the first International Premium Economy product among U.S. carriers, Poonam has a proven track record for meticulous planning and delivering tremendous results," said Maya Leibman, American's chief information officer. "Poonam is a strong leader who asks insightful questions that quickly get to the heart of the matter. She is well known for creating strong relationships and is passionate about technology and how it can be used to enhance the customer and team member experience. These attributes will make her a great fit in this new role."

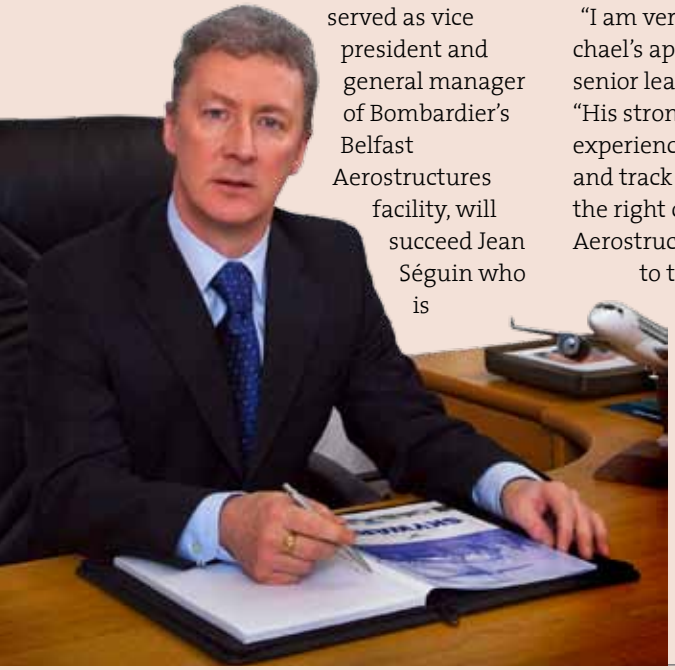
Besides American's effort to join together its Human Resources and Payroll systems, Mohan will supervise the airline's vital Passenger Service (Reservations) System. She will also supervise technical delivery of programmes for Revenue Management, Network Planning, Revenue Accounting, Finance, American's three wholly owned regional carriers and alliance and joint business partners, and the airline's Operations Research team, which designs mission-critical decision and optimization tools.

Mohan joined American Airlines in 2002 in Marketing. In her 15 years with the company, she has held leadership positions in business technology, applications development, and revenue and planning technology. Most recently she has served as Managing Director – Flight Operations & Crew Technology, overseeing the planning and development of American's most important crew integration programs. Mohan holds a Bachelor of Engineering from the University of Allahabad, Uttar Pradesh and received an MBA from the Indian Institute of Management Ahmedabad, Gujarat.

## Executive Focus

### Bombardier appoints Michael Ryan as President, Aerostructures and Engineering Services; Jean Séguin to retire

Bombardier Inc. appointed Michael Ryan as President, Aerostructures and Engineering Services; effective July 1, 2017.



Ryan, who earlier served as vice president and general manager of Bombardier's Belfast Aerostructures facility, will succeed Jean Séguin who is retiring after a 36-year career with Bombardier. Ryan will report directly to Alain Bellemare, president and chief executive officer, Bombardier Inc.

"I am very pleased to announce Michael's appointment to Bombardier's senior leadership team," said Bellemare. "His strong leadership skills, deep experience in the aerospace industry and track record of execution make him the right choice to lead Bombardier's Aerostructures business as we continue to transform our Company."

Michael Ryan joined Bombardier through the acquisition of Short Brothers plc in 1989, and has held a number of leadership positions including General Manager, Advanced Composites Production, General Manager, Fabrications and General Manager, Procurement for Bombardier Aerospace. In his most recent position as Vice President and General Manager of Bombardier's Belfast facility, Ryan supported the design, development and production ramp-up of some of Bombardier's largest growth programmes.

Besides playing a key role in improving productivity and reducing costs in Aerostructures operations, Séguin was integral in the growth of many of Bombardier's most successful programmes.

"Jean has been instrumental in transforming Bombardier's product portfolio and improving the efficiency of our operations," Bellemare said. "His leadership and vision has helped to position Bombardier as a world leader in both the commercial and business aircraft markets. I thank Jean for his many contributions to Bombardier, and wish him a healthy, happy and long retirement."

# Elwell selected as FAA Deputy Administrator

Dan Elwell has been appointed as Federal Aviation Administration (FAA) Deputy Administrator. Appointed by President Donald J. Trump, Elwell is the second highest-ranking official at the agency responsible for ensuring aviation safety and air traffic control services for the nation.

Elwell returns to the FAA during a historic period of safety and change as air traffic control reform is being considered to speed airspace transformation and new entrants like unmanned aerial vehicles and commercial spacecraft are integrated into the airspace system.

"Dan's insight and experience will serve the FAA and public well," said FAA Administrator Michael P. Huerta. "He has a strong background as a military and civilian pilot, as well as holding key leadership positions within the aerospace industry."

Elwell previously served as FAA Assistant Administrator for Policy, Planning and Environment from 2006 to 2008. Of late, he has been serving as the Senior Advisor on Aviation to U.S. Secretary of Transportation Elaine L. Chao.

Before returning to public service, Elwell was President and Managing Partner of Elwell and Associates, an aviation consulting firm. Elwell also was Senior Vice President for Safety, Security and Operations at Airlines for America and Vice President at the Aerospace Industries Association. Elwell graduated from the United States Air Force Academy.

# Glimpses of Paris Air Show





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*PHOTO CREDITS:* ***Boeing***



*PHOTO CREDITS: Dassault Aviation - V. Almansa*

# International Events

| EVENT | DATE | VENUE |
|---|---|---|
| **The Airport Modernization India Summit 2017** | 6th - 7th July 2017 | Bangalore, India |
| **The Airport Modernization Turkey Summit 2017** | 13th - 14th July 2017 | Istanbul, Turkey |
| **Aviation Expo China 2017** | 19-22, Sept 2017 | Shanghai, China |
| **NBAA Business Aviation Convention & Exhibition (NBAA-BACE)** | 10-12, October 2017 | Las Vegas Convention Center Henderson Executive Airport Las Vegas, NV |
| **MRO Asia-Pacific** | 31 October 2, November 2017 | Singapore Expo Convention and Exhibition Centre, Singapore |
| **Dubai Air Show** | 12 -16, November 2017 | DWC, Dubai Airshow Site |
| **MRO Middle East** | 23-24, January 2018 | Dubai World Trade Centre Dubai, UAE |
| **Singapore Air Show** | 6-11, February 2018 | Changi Exhibition Centre |

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