146 Sept-Oct 2013 Our 25th year

BART INTERNATIONAL

PREMIER TRANSATLANTIC BUSINESS AVIATION MAGAZINE IN EUROPE

JET EXPO 2013

HAWKER 400XPR

FACE TO FACE

RUSSIA - THE LAND OF UNKNOWNS

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Quality Range Service Value

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*Conditions apply. Please see our website for details.

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NEW TRAINING PROGRAMS AND LOCATIONS – MORE COMING IN 2013 AND 2014

AgustaWestland AW139
Lafayette, LA

Beechcraft King Air 350/B200 with Garmin G1000
Wichita, KS

Bell 212
Dallas, TX

Bell 412
Dallas, TX

Bell 430
Dallas, TX

Bombardier Challenger 605
Wilmington, DE

Bombardier Global 5000/6000
Columbus, OH

Cessna Citation M2
Wichita, KS

Cessna Citation X G5000
Wichita, KS

Cessna Citation Sovereign G5000
Wichita, KS

Dassault Falcon 7X
Dallas, TX; Paris, FR

Dassault Falcon 900LX
Dallas, TX

Dassault Falcon 2000S
Teterboro, NJ

Dassault Falcon 2000LXS
Teterboro, NJ

Embraer Legacy 500
St. Louis, MO

Embraer Legacy 600
Houston, TX; St. Louis, MO; Paris, FR

Embraer Legacy 650
St. Louis, MO

Embraer Lineage 1000
St. Louis, MO; Paris, FR

Eurocopter EC135
Dallas, TX

Gulfstream G280
Dallas, TX

Gulfstream G450/G550
Dallas, TX; Hong Kong

Gulfstream G650
Long Beach, CA; Savannah, GA

HondaJet
Greensboro, NC

Pilatus PC-12 NG
Dallas, TX

Pilatus PC-12/47 Series 10
Dallas, TX

Pilatus PC-24
Dallas, TX

Sikorsky S-76B
Dallas, TX

Sikorsky S-76D
West Palm Beach, FL

Sikorsky S-92
Lafayette, LA; Stavanger, Norway

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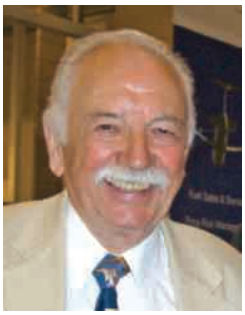

editorial

From the Editor

Quo Vadis Petroleum

THOSE OF YOU WHO REMEMBER the late seventies will recall the international fear of a coming gasoline shortage – a fear only heightened by most filling stations displaying their 'patriotism' by raising prices nearly every week. The situation was worrying not only for the automotive and aviation industries, but for everyone as it was a threat to the whole persistence of our way of life. How were we going to heat our homes and run our plants? People want air conditioning and many other things that they are used to.

Although the shortage never actually materialized as feared, with the environmentalists crapping in all directions, the general public started to adopt a 'consumption reduction' approach. With a 'if you can't beat them join them' attitude, the oil industry launched expensive research into developing alternatives to petroleum and fossil fuels. As the green crowd likes to say: 'these explorations should lead to commercially viable, innovative and environmentally friendly alternatives to our jet fuel'.

Some of these experiments consist of mixing oil with colza. Anticipating a golden opportunity, some European farmers jumped at the chance to consecrate huge areas of land to cultivate the colza, irritating the Food and Agriculture Organization who is trying to find ways to feed a population of 870 million currently suffering from hunger worldwide.

On March 2012, Airbus and Boeing buried the hatchet and, along with Embraer, jointly started to develop non-fossil-carbon releasing jet fuels. The three leading airframe manufacturers agreed to seek collaborative opportunities to speak in unity to governments, biofuel producers and other key stakeholders to gain their support.

Finally, we also have the case of the Swiss-built Solar Impulse airplane, backed by Swiss adventurer Bertrand Picard – one of two pilots promoting the 'sun powered' airplane as being a conceivable commercial aircraft within the next five years. "At 45mph and only one pilot seat, I don't think so!"

More realistically, André Borschber, co-founder and co-pilot of the project, told NBC News that "all the partners involved with this project developed technologies not for the aviation world, but for their own customers, being it homebuilding, maybe the automobile industry, maybe appliances." According to Borschber, Solar Impulse stands for renewable energy — not just electric aircraft, but the use of solar power in general. That's what I thought!

The greatest force in our civilized world is public demand, and it should be brought to bear on the environmentalists who would see us go without fuel for people, factories, autos and airplanes. We need airplanes for business and we will continue to have them. And whether we like it or not, there's no denying that we depend on the petroleum industry. It's our economic lifeblood and, recession or not, we simply cannot permit our economies to grind down to half speed.

The Alaska Outer Continental Shelf may be one of the largest untapped oil gas basins in the world. According to the University of Alaska Anchorage, the shelf's development would create and sustain an annual average of 54,700 new jobs through the year 2057, with 68,600 during production and 91,500 at peak employment. When the Alaska pipeline and other sources are developed, then we can talk about pollution again – not to mention being able to conduct our oil affairs with the Arab countries from a position of force.

"A century ago petroleum was just an obscure commodity; today it is almost as vital to human as water"
James Buchan

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EBACE OFFICIAL PUBLICATION

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PREMIER TRANSATLANTIC BUSINESS AVIATION MAGAZINE IN EUROPE

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Editor and Publisher Fernand M. Francois **Senior Editor** Marc Grangier
Managing Editor Paul Walsh **Editor-at-Large** Nicholas J. Klenske
Senior Writers Liz Moscrop, Jack Carroll **Contributors** Brian Humphries, Fabio Gamba, Michel R. Grüninger, Capt. Giancarlo Buono, Markus Kohler, Aoife O'Sullivan, Giulia Mauri, LeRoy Cook, Louis Smyth, Derek A. Bloom, Steve Nichols, Eugene Gordon
Business Aviation Consultants Walter Scharff, Guy Visele
Director Marketing & Advertising Kathy Ann Francois +32 472 333 636 e-mail advertising@bartintl.com **Administration and Circulation** Carolyn Berteau cberteau@bartintl.com **Production Manager** Tanguy Francois
Photographer: Michel Coryn, Pascal Strube
Circulation and Editorial Office: BART International, 20 rue de l'Industrie, BE1400 Nivelles, Europe **Phone** +326 788 3603 **Fax** +326 788 3623, e-mail info@bartintl.com
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STEADY

LABACE showed that Business Aviation is growing continuously in Brazil. Airbus A319 Presidential Aircraft (pictured).

OUR COVER

We put the remanufactured Nextant 400XTi and the Hawker 400XP head to head. See page 52 for details.

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AGENDA

Jet Expo 2013
September 12-14
Moscow, Russia

NBAA CONVENTION
October 22-24
Las Vegas, USA

SHEDULERS & DISPATCHERS
January 14-17, 2014
New Orleans, USA

NEW FEATURES FOR PHENOM 100

Embraer Executive Jets now offers new standard and optional features for its Phenom 100, revealed at LABACE. The new features include multi-function spoilers, 11 new interior collections and new options including a refreshment center, stowage space and premium seats. The multi-function spoiler offers two new functionalities, acting as a ground spoiler and speed brake.

The 11 new interior collections refresh both cabin looks and comfort and feature new color choices and materials such as wood veneer. The optional premium seat features additional capabilities, such as swivel, lateral and forward movement. Embraer has also included a new refreshment center as an option which can be installed in lieu of the standard wardrobe opposite the entry door.

ASSET INSIGHT AND JETLEVEL SIGN SERVICES AGREEMENT

Asset Insight, Inc. announced that Jetlevel GmbH would be providing marketing and sales support services within Europe and western Russia. Headquartered in Vienna, Austria, Jetlevel will focus on expanding Asset Insight's presence within Europe's business aviation, including fleet operators, financial services entities, management companies, appraisers, brokers, and other aircraft support organizations.

Asset Insight, Inc. provides asset evaluation and financial optimization services. The Asset Insight Index and related analyses derived by the company's "Asset Grading System Standard" provide the ability to translate the asset's technical condition into easy-to-understand, actionable financial information.

RAISBECK APPOINTS NEW AUTHORIZED DEALER

Raisbeck Engineering has announced its official partnership with Aero Baires SACI in Argentina as Raisbeck's newest Authorized Dealer. Aero Baires will be authorized to install all of Raisbeck's King Air Performance Systems for the region "It was an easy decision to partner with Aero Baires based on their record of stellar service, and their location," commented Raisbeck's Director of Sales Scott Keefe. "They are in a great position to be a productive dealer of Raisbeck's, and we are happy to bring them on board." Aero Baires is already a Beechcraft Dealer and Authorized Service center and well respected by operators in the region. With over 80 King Airs in Argentina's ever-growing Beechcraft fleet, the location is well positioned to serve the market.

CESSNA COMPLETES FIRST CITATION LATITUDE FUSELAGE

Cessna has completed the first fuselage for its forthcoming mid-size business jet, the Citation Latitude. The Latitude prototype is expected to take its first flight in early 2014, and is expected to have a range of 4,630 km (2,500 nm), permitting non-stop travel between São Paulo and Caracas, Venezuela, or from Santiago, Chile to Bogotá, Columbia. Powered by twin Pratt & Whitney PW306D FADEC-controlled turbofan engines, the Latitude is expected to have a maximum cruise speed of 440 ktas. The aircraft will offer configurations for seating seven to nine passengers in a spacious, 1.83 m (6 ft) tall, flat-floored cabin.

"The Latitude will be a welcome addition to the expanding fleet of Citation aircraft throughout Latin America, and Brazil in particular," said Kriya Shortt, Cessna senior vice president of Sales. "A much higher percentage of owners and operators in Latin America continue to choose Cessna Citation jets over the competition, and nearly half of all light and midsize business jets in Brazil bear the Citation name.


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DASSAULT FALCON: STRONG GROWTH IN BRAZIL CONTINUES IN 2013

Brazil continues to be a strong market for Dassault, with another five Falcons set to be delivered to customers in the country during 2013. Dassault is the market leader in the Brazilian large cabin business jet segment with about 60% market share.

"Brazil has been at the center of the world stage over the past couple of years. It's a dynamic country with a very healthy and diversified economy," said John Rosanvallon, President and CEO of Dassault Falcon Jet. "Our commitment to Brazil has steadily progressed since we sold our first new airplane there over thirty years ago."

Rosanvallon added: "We continue to have high expectations for the Brazilian market and will keep expanding our investment in the years to come."

Pivotal to Success: Dassault Aircraft Services-Sorocaba

The company owned Sorocaba Service Center is authorized to perform line maintenance and airframe inspections on all Falcon models except the Falcon 20 and Falcon 100. In addition, the facility is qualified to provide engine maintenance on the CFE-738, Honeywell TFE731 series as well as Pratt & Whitney Canada PW307A and PW308C models. Specialized non-destructive testing (NDT) services, such as Penetrant and Eddy Current testing can also be performed. A full service battery shop is available to repair, replace or charge main and emergency batteries on Falcon and other aircraft models.

Following the opening of the Sorocaba Service Center in June 2009, Dassault Falcon Jet has continued to expand the facility with increased manpower, spare parts and tooling.

µSorocaba has an AOG 'GoTeam' that can provide rapid mobile response for a Falcon located anywhere in South America, along with the parts and tools necessary to get the aircraft flying again with minimal delay. Dassault Falcon Jet houses over $ 3 million (U.S.) worth of high usage parts in Sao Paulo. The 23,000 square foot facility can also be used to hangar up to three Falcons.

JSSI® EXPANDS AIRFRAME COVERAGE TO INCLUDE PHENOM 100 & 300

Jet Support Services, Inc. (JSSI), the leading provider of hourly cost maintenance programs for the Business Aviation industry, has launched its Embraer Phenom 100 and 300 Airframe Programs.

he JSSI Airframe Programs for the Phenom 100 and 300 enhance the existing manufacturer warranties and provide comprehensive coverage for airframe maintenance costs. Covering virtually every part, component, assembly and system of the airframe, including all parts and labor for scheduled and unscheduled maintenance, the Phenom Airframe Program provides owners and operators with a predictable maintenance budget and peace of mind. The cost-per-flight-hour service is backed by 24/7 access to the largest independent, highly experienced technical and client services teams, located around the world.

GULFSTREAM G280 MAKES FIRST APPEARANCE AT LABACE

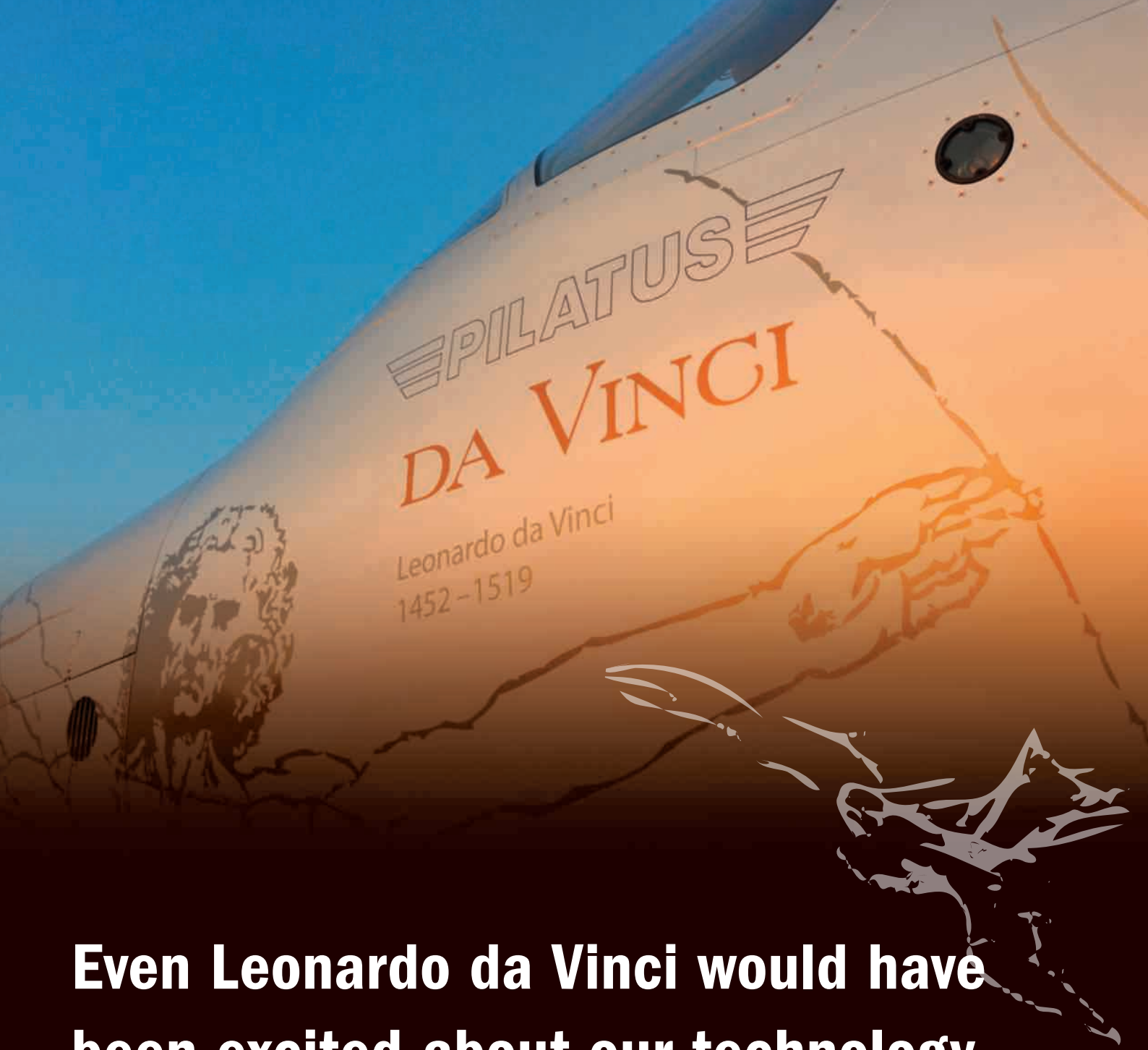
Gulfstream Aerospace Corp.'s new super mid-size aircraft, the G280, has arrived in São Paulo, Brazil, this week to be part of the 10th annual Latin American Business Aviation Conference & Exhibition (LABACE). It's the first time the aircraft will be part of the airshow's static display.

"The G280 is well-suited to the Latin American market, particularly Brazil," said Scott Neal, senior vice president, Sales and Marketing, Gulfstream. "From São Paulo, the G280 can reach all of South America without refueling and can easily reach the U.S. and Europe with one stop. Along with its superior range, the G280 has best-in-class fuel-efficiency and comfort."

The G280 has been on a world demonstration tour since December 2012. So far, the demonstrator aircraft has visited 170 cities in 38 countries and accumulated more than 630 flight hours. During those eight months, the jet traveled 232,354 nautical miles (430,320 kilometers).

Since entering service in late 2012, the G280 has displayed its best-in-class speed, accumulating more than 30 city-pair speed records. The latest occurred en route to LABACE, when it traveled 2,900 nm (5,371 km) — from San Juan, Puerto Rico, to Foz do Iguaçu, Brazil, at an average speed of Mach 0.81 for a flight time of 6 hours and 28 minutes.

Earlier this summer, the U.S. Federal Aviation Administration certified the Enhanced Vision System (EVS) II and Head-Up Display (HUD) II for the G280. The systems allow pilots to see terrain, runways, taxiways and possible obstructions in low-visibility conditions. With EVS II and HUD II, the G280 can land in weather conditions that would be prohibitive for unequipped aircraft.



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PILATUS

FAST TRACK

PREMIUM JET TAPPED TO DISTRIBUTE BLR AEROSPACE WINGLETS IN BRAZIL

BLR Aerospace has named Premium Jet of Brazil as a dealer for its value- and performance-enhancing Winglet Systems. Under the terms of the agreement, Premium Jet may sell and install BLR's complete line of ANAC-certified Winglet Systems and LED Lights for Beechcraft King Air 90, 200 and 300 Series aircraft. ANAC is the Brazilian civil aviation authority.

"Premium Jet is an important presence in this rapidly expanding market," said Dave Marone, BLR vice president of Sales and Marketing. "They have a demonstrated commitment to excellence that has earned them a stellar reputation in Brazil and beyond, and we welcome them to the BLR dealership network."

WORLD FUEL SERVICES CELEBRATES NEW SÃO PAULO OFFICE

With the backdrop of the Latin American Business Aviation Conference & Exhibition (LABACE), World Fuel Services is showcasing their enhanced South American presence on the heels of the opening of their new São Paulo office. With the opening of this new office, World Fuel Services has brought on a native Paulistano, Celso Azuma, as their Business Aviation Sales Executive for the region. Azuma has extensive experience in the aviation arena, more specifically, specializing in ground handling services.

FLAWLESS FIRST PRODUCTION FLIGHT FOR CESSNA CITATION X

Cessna Aircraft Company is celebrating another program milestone for the world's fastest civilian aircraft, the Citation X. The first production unit of the new Citation X took its maiden flight this week, marking another step closer to certification and delivery of the remarkable mid-size business jet.

"The Citation X was flawless today," said Gary Drummond, Cessna senior production test pilot and the flight's Pilot in Command. "We took the X to an altitude of 49,000 feet on a flight pattern over western Kansas. The aircraft attained a top speed of Mach 0.935 (617 mph). We conducted a 3.1-hour flight with an average cruise speed of Mach 0.915 (604 mph) at 41,000 feet. The Garmin G5000 avionics performed brilliantly and the auto-throttle system is going to be a welcome feature for Citation X operators."

BELL HELICOPTER DELIVERS FIRST BELL 407GX IN POLAND

Bell Helicopter has announced the delivery of the first Bell 407GX to be operated in Poland at the Konstancin airfield near Warsaw. This is the first of two Bell 407GXs to be delivered in Poland this month.

"We are very pleased that interest in Bell Helicopter aircraft continues to grow in Poland. The Bell 407 is flown by customers across a variety of segments, from police and border patrol to air medical and corporate transport. Now, the Bell 407GX is gaining momentum in Poland and all over the world as the most advanced light single engine helicopter on the market," said Patrick Moulay, managing director for Bell Helicopter in Europe.

JB Investments Ltd., Bell Helicopter's Independent Representative in Poland, delivered the Bell 407GX on Tuesday. To date, Bell Helicopter has delivered more than 1,100 Bell 407s across the globe, including nearly 100 Bell 407GXs.

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AIR BP FIRST UK AVGAS SELF-SERVE PAYMENT SYSTEM AT GOODWOOD

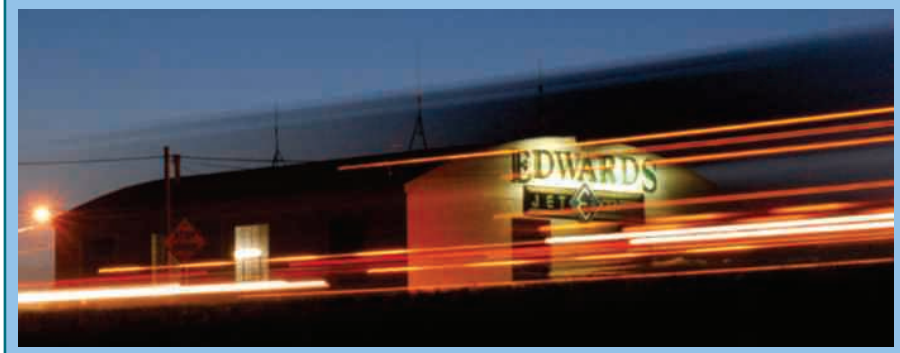
Pilots requiring Avgas fuel at Goodwood Aerodrome now have the option to serve themselves through Air BP's first UK self-serve payment system without needing to pre-book or wait for assistance at busy times. Air BP is delighted to offer a free gift to the first five customers to use the self-serve facility to celebrate the launch. The updated system will allow Goodwood's General Aviation customers to use a new Goodwood fuel card (which acts like a local account card), or pay with debit/credit payment cards, to uplift Air BP Avgas fuel safely and conveniently.

Supporting Air BP's commitment to prevent misfuelling, the self-serve system asks the user to verify that they require Avgas before fuelling begins. It also improves efficiency by reducing administration through production of electronic receipts for the customer and itemised stock management reports for the aerodrome operator.

JET AVIATION BASEL REFURBISHES ITS MAINTENANCE CUSTOMER LOUNGE

To enhance customer comfort, Jet Aviation Basel has transformed its Maintenance customer lounge into a bright and spacious 161 sq m space, designed with the new corporate look and feel as introduced at the Geneva FBO earlier this year. The newly refurbished lounge now offers a fully equipped meeting room, kitchen, business center, reception area and dedicated customer service coordinator. Refurbishments include the removal of two walls to brighten and enlarge the lounge, as well as new furniture, office equipment, kitchen appliances and electronic music and lighting systems. In addition, the lounge's ventilation system was extended and replaced with flat pipes, thereby improving the overall air circulation and enabling the ceiling to be raised 30 cm to a height of 2.55 meters.

BEECHCRAFT APPOINTS EDWARDS JET CENTER AS NEW AUTHORIZED SERVICE CENTER



Beechcraft Corporation and its aftermarket service and support organization, Hawker Beechcraft Global Customer Support (GCS), has announced the appointment of Edwards Jet Center (EJC) in Billings, Mont., as an authorized service center (ASC) for the company's King Air, Baron and Bonanza products.

"Edwards is the largest FBO in the state of Montana but it's their professionalism and knowledge of Beechcraft that makes this an ideal partnership," said Christi Tannahill, senior vice president, Global Customer Support.

GULFSTREAM G280'S VISION-ENHANCING OPTION CERTIFIED BY FAA

Enhanced Vision System II/Head-Up Display II Provide Operational Credit Gulfstream Aerospace Corp. has announced that its Enhanced Vision System (EVS) II and Head-Up Display (HUD) II for the new G280 business jet have been certified by the U.S. Federal Aviation Administration (FAA). The systems allow pilots to see terrain, runways, taxiways and possible obstructions in low-visibility conditions.The FAA certification means the enhanced flight vision system, which has been integrated with Rockwell Collins Pro Line Fusion avionics and HUD II, provides operational credit. G280 aircraft equipped with the systems can land in weather conditions that would be prohibitive for nonequippedaircraft.

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With its optimized aerodynamics and high-lift devices, a Falcon delivers the short-field, multi-hop agility of much smaller aircraft. This should come as no surprise. After all, our Rafale fighter jets land on aircraft carriers. Designed by the same engineers. Defined by the same DNA. Nothing flies like a Falcon.

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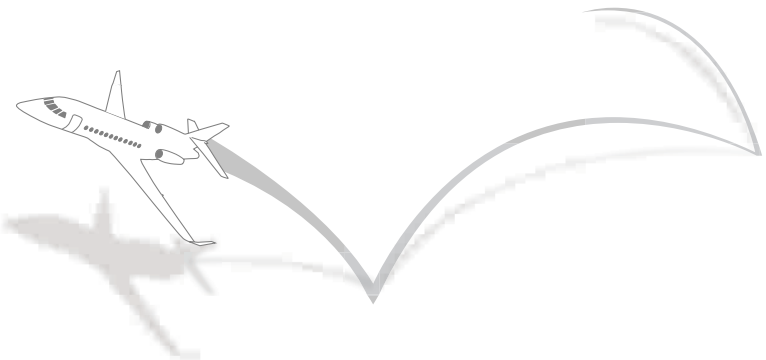

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BOMBARDIER BOOSTS ITS CUSTOMER SERVICES NETWORK IN AFRICA

Bombardier Aerospace is continuing to enhance its worldwide aftermarket support network with a new Regional Support Office (RSO) and parts depot in Johannesburg, South Africa. The office and depot will anchor regional support capabilities for Bombardier business and commercial aircraft customers in Africa.

Both the Johannesburg RSO and parts depot are co-located at Bombardier's Business Aircraft Authorized Service Facility (ASF), ExecuJet South Africa's facility at the Lanseria Airport. When fully staffed in the coming months, the new RSO will include teams from both Bombardier's business and commercial aircraft, and will each include an RSO Manager leading regionally focused Customer Support Account Managers (CSAM) and Field Service Representatives (FSR). As the business and commercial aircraft fleet grows, Bombardier will continue to explore expanding its RSO's capabilities and staff.

The 2,153 square-foot (200 sq-m) Johannesburg parts depot facility will be operated through an agreement with ExecuJet South Africa. The facility will be equipped to serve all business and commercial aircraft customers within the region starting in the coming months.

JET AVIATION BASEL SIGNS AGREEMENT WITH INTERNATIONAL JET MANAGEMENT

Jet Aviation Basel will support International Jet Management's fleet of aircraft with line and base maintenance.

International Jet Management, a Vienna-based aircraft management and charter company, has appointed Jet Aviation Basel to provide line and base maintenance to its fleet of managed aircraft, which includes two Bombardier Globals, one Bombardier Challenger 850, two Bombardier Challenger 605s, one Bombardier Challenger 604, two Bombardier Challenger 300s, one Learjet 40, one Citation Excel, seven Dassault Falcon 900s, one Dassault Falcon 2000 and one Gulfstream V.

UNIVERSAL FMS AND PRO LINE 21® EFIS VERTICAL COUPLING NOW AVAILABLE

Universal Avionics is pleased to announce that a new interface between the company's Flight Management System (FMS) and Rockwell Collins' Pro Line 21 Electronic Flight Instrumentation System (EFIS) which provides vertical coupling on approach is now available for installation and approval. Until recently, a limitation in the Pro Line 21 EFIS had not allowed Universal Avionics' FMS to vertically couple to the autopilot in Cessna 525 CJ1 and CJ2 aircraft. In January of 2011, Cessna, Rockwell Collins and Universal Avionics came together in an effort to provide a solution for CJ owners. The agreement paved the way for Rockwell Collins to make necessary modifications to the Pro Line 21 EFIS and Flight Guidance System interface to allow vertically coupled approach capability with the Universal Avionics FMS.

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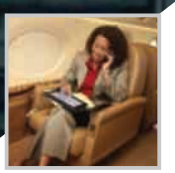

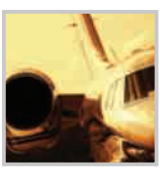

Pegasus One, Pegasus Place, Gatwick Road
Crawley, West Sussex, RH10 9AY, UK
+44 1293 641200 emea@arinc.com

FAST TRACK

BANYAN COMMITTED TO SERVING MAGNASTAR OPERATORS

Banyan Air Service based at Fort Lauderdale Executive Airport recently completed an extensive review of the different upgrade paths and favorable discounts being offered by some of the leading vendors in the aviation industry. With over 1100 aircraft operating with the Magnastar system and a discontinuation of service expiring in December of 2013, operators need to plan their upgrades sooner than later as the number of shops and available equipment will saturate come the fourth quarter of this year and crews will have to explain to the boss why the phone is "out of service".

"The Banyan team understands no one likes to down their aircraft to perform an installation and we took the time to study how we can reduce the downtime to a minimum and make sure customers receive the best deal and largest savings offered by the vendors," stated Brian Wilson, Banyan's Director of Avionics.

EURO JET EXPANDS VIP SERVICE INTO TURKEY

Euro Jet Intercontinental, a leading provider of ground support services in Europe and Asia has expanded its on-the-ground presence throughout Turkey. The new stations in Turkey continue Euro Jet's fifth year anniversary celebrations that include expansion into key regions experiencing significant growth in private aviation.

Euro Jet Turkey includes the same standardized VIP service it provides all its customers throughout Eastern Europe and Central Asia. This includes having a Euro Jet agent on-the-ground, crew lounges, ramp cars, supervised catering, discounted hotel rooms, and the ability to quickly coordinate all fuel and permits.

The expansion includes all major Turkish airports and is part of a partnership with Bee Jet. Some of the key airports include both Ataturk and Sabiha Gokcen in Istanbul, Ankara, Izmir, and Adana. This brings Euro Jet's presence on-the-ground to over 200 locations giving it the largest network of its kind throughout Europe and Asia.

TETERBORO AND BIGGIN HILL SIGN TRANSATLANTIC INITIATIVE

The innovative scheme established between Teterboro Airport in the metropolitan area of New York and London's Biggin Hill Airport is aimed at supporting and developing business air transportation between the financial and commercial centers of the City of London and New York.
Enshrined in a Memorandum of Understanding (MOU) signed in New York by Ralph Tragale, Assistant Director of the Aviation Department of the Port Authority of New York & New Jersey and Andrew Walters, Chairman, Biggin Hill Airport Ltd, the MOU provides the platform for international cooperation and customer service geared exclusively to business and corporate aviation.
New York Teterboro and London Biggin Hill Airport operate similarly as international gateway airports to their respective cities, both located conveniently within 12 miles of the city centers. Both airports have multi-choice FBO's and MRO's and a full range of supporting technical services.

JET AVIATION OFFERS GULFSTREAM G650 FOR CHARTER

Jet Aviation Flight Services has added its first Gulfstream G650 onto its U.S. Part 135 air carrier certificate. The new aircraft is available for charter and will be managed by the Jet Aviation Van Nuys office.
The G650 charter aircraft accommodates up to 13 passengers, sleeps five comfortably and includes a crew rest area to provide comfort and space for long-distance trips. The aircraft is outfitted with a luxurious leather interior and the cabin can be divided for added privacy. In addition to the essential passenger amenities, the aircraft is equipped with an exceptional entertainment system featuring Airshow, DVD player, sound system and a connection for iPods and MP3 players, flight phone and satellite communications.

FAST TRACK

TAG FARNBOROUGH AIRPORT ENHANCES MAINTENANCE AND SERVICING OFFERING

TAG Farnborough Airport's local planning authority, Rushmoor Borough Council, granted permission to enhance the maintenance and servicing of aircraft offered at the airport, on 18 July 2013. Selected maintenance and servicing work, which was previously restricted to the airport's operational hours, is now permitted 24 hours per day, seven days per week.

Out of hours work is authorized to take place in the airport's existing maintenance facilities and on its apron, providing it does not transmit noise to surrounding property. Therefore, no work outside of the airport's maintenance buildings is permitted to involve the running of aircraft engines or the use of air tools and is limited to internal diagnostics and servicing.

This consent enables the airport-based engineering companies to offer overnight servicing to aircraft which arrive in the evening and plan to depart the following morning.

NEXTANT AEROSPACE ANNOUNCES CYGNUS AVIATION AS EXCLUSIVE SALES AGENT

Nextant Aerospace ("Nextant"), maker of the Nextant 400XTi, the world's only remanufactured business jet, has announced the appointment of Cygnus Aviation LLC as the exclusive sales agent for Venezuela, Colombia and the Caribbean. These territories represent some of the most active private aviation markets in Latin America.

Cygnus Aviation will play a key role in defining Nextant's sales, marketing and customer service strategy in the region. Company President Vicente Miralles has 25 years of experience in the Latin American market and deep product knowledge of light cabin aircraft.

BLACKHAWK MODIFICATIONS DELIVERS SECOND XP42A GRAND CARAVAN TO TRANS GUYANA AIRWAYS

Blackhawk Modifications, a global leader in the design, development and installation of performance improvement systems for single- and twin-engine turboprop aircraft, has delivered its second XP42A Grand Caravan 208B upgrade to Trans Guyana Airways.

A charter and scheduled airline based in Ogle, East Coast Demerara, Guyana, Trans Guyana Airways ordered its first Grand Caravan XP42A upgrade in August 2012. The air carrier flies five Grand Caravans and three other twin-engine turboprop aircraft.

Blackhawk's XP42A upgrade, which has achieved certification from the U.S. FAA and the European Aviation Safety Agency, replaces the Grand Caravan's 675-shaft-horsepower (shp) Pratt & Whitney Canada PT6A-114A with a new PT6A-42A engine with a continuous power rating of 850 shp. Combined with a factory-new, 100-inch-diameter Hartzell propeller with four wide-chord blades and other elements, the XP42A upgrade enables Grand Caravan operators to double their aircraft's rate of climb while using less fuel, achieve a 4 percent increase in takeoff weight and gain a more than 15 percent improvement in cruise speed.

JET AVIATION INTRODUCES AN ONLINE CLIENT GATEWAY FOR ITS U.S. MANAGED CLIENTS

Jet Aviation Flight Services has announced the creation of a client gateway that makes information easily accessible to its managed aircraft clients in the U.S.

Jet Aviation's new client gateway provides its aircraft management clients in the U.S. with a secure, online environment to view and download monthly statements and third party invoices, sort and search information and contact their account representative.

"Our new client gateway provides clients with a user-friendly and interactive site that addresses their account management needs and fosters collaborative communication between Jet Aviation and its clients," says Don Haloburdo, vice president and general manager of Jet Aviation Flight Services. "We've developed the client gateway with input from our clients to ensure it meets their business needs."

DASSAULT EASY II AVIONICS UPGRADE DELIVERED BY RUAG

RUAG Aviation has successfully completed its first Dassault EASy II flight deck upgrade. The project was carried out on a Dassault Falcon 900EX at RUAG Aviation's facility in Geneva, Switzerland.

EASy II is designed to simplify flight management tasks as well as to comply with upcoming regulatory requirements and corresponding operational changes. The system delivers superior safety standards with its improved take-off and go-around capability, as well as its Runway Awareness and Advisory System (RAAS). It provides unparalleled situational awareness both day and night, and under all conditions.

Further enhancing safety is EASy II's SmartViewTM Synthetic Vision System (SVS). The SVS merges the terrain database of Honeywell's enhanced ground proximity warning system (EGPWS) with Head-Up-Display (HUD) symbology, presenting it in a comprehensive, easy-to-understand format on the crew's Primary Display Unit (PDU).

BLACKHAWK EARNS FAA CERTIFICATION FOR 208A CARAVAN UPGRADE

The Federal Aviation Administration (FAA) issued a Supplemental Type Certificate (STC) on June 10 authorizing Blackhawk to sell and install the XP42A Upgrade Package on Cessna Caravan 208A aircraft, Jim Allmon, President and CEO of Blackhawk Modifications, Inc., announced. Now, those who fly 208As can enjoy the same operational and economic benefits that have made the upgrade so popular with the 208B community.

"Our team is enthusiastic about this program because it will really make a difference to the Caravan fleet," Allmon said. "We've had strong demand for the upgrade, which adds so much more capability to an already capable workhorse aircraft."

First deliveries will start this month. The upgrade has already been proven by more than two dozen successful XP42A installations in 208B Caravans operating worldwide.

REAL TIME CONNECTION IN ACJC CORPORATE JET

Backed by its former experience on this technology, ACJC, the specialist in Airbus Corporate Jet VIP cabin completion and nose-to-tail services, is the first completion center to install and activate the system GCS (Global Communication Suite), on a single aisle Airbus aircraft.

In close collaboration with Panasonic, this KU-Band antenna provides superior performance at high latitudes and equatorial region offering to corporate customer a real office in the sky or a live entertainment place for friends and family.

Only via one single antenna, ACJC's Middle Eastern client will be able to watch real-time TV from all over the world, enjoying the same type of high-quality entertainment at 35,000 feet that they would watch at home. Programs are broadcasted live and uninterrupted despite the change of satellite zone or flying over oceans.

SCANDINAVIAN AVIONICS RECEIVES GARMIN AWARD

Scandinavian Avionics has received the Garmin Platinum Award for Elite Performance 2012, which represents the highest level of sales performance, technical expertise and customer service within the Garmin International avionics distributor network.

Manager, EMEA Sales & Marketing at Garmin, Trevor Pegrum comments: "Scandinavian Avionics has repeatedly shown that they are one of the top Garmin Aviation agencies World Wide and we are proud to be in the position to offer them the Platinum award for top performance. The Platinum Dealer award represents the highest level of sales performance, technical expertise, and customer service. We continue to look forward to a long and successful partnership with Scandinavian Avionics".

In more than 20 years, Scandinavian Avionics, headquarters of The SA Group, has provided sales, maintenance, certification, installation and support of Garmin aviation products. VP & Sales Director of Scandinavian Avionics, Hardy B. Truelsen said:

"We are very proud of receiving this award which is a result of our great cooperation with Garmin though more than 20 years. We look forward to continue our work with the Garmin products and provide our Garmin customers with the best possible solutions and services in the future."

ON THE MOVE

PEOPLE

In-flight catering provider **Air Culinaire Worldwide** has named **John Detloff** as Vice President, Flight Attendant Services to spearhead and enhance ongoing efforts to develop a comprehensive program to meet the evolving and expanding needs of corporate flight attendants.

John Detloff

Jim Allmon, President and CEO of Blackhawk Modifications, Inc has announced that the company is reorganizing its worldwide sales organization.

Effective immediately, the sales organization will be divided into two groups; Domestic Sales and International Sales. The regional sales managers in the domestic sales group will report to **Edwin Black**, Vice President of Domestic Sales. Black has been with Blackhawk since 2008. The regional sales managers in the international sales group will report to **Bobby Patton**, Vice President of International Sales. Patton has been with Blackhawk since 2009.

Cessna has announced new leadership appointments positively impacting the company's Citation business jets. **Bob King** has been named business leader for the Mustang, M2, CJ2+, CJ3 and CJ4 aircraft and **Brian Rohloff** has been named vice president of Quality

Dallas Airmotive, a leading provider of OEM-approved turbine engine repair and overhaul services, announced that it has added Tim Neff as a Regional Engine Manager. He will serve customers in Wisconsin and northern Illinois representing all of the company's engine and APU product lines.

EAN has appointed **Joe McDermott** to the newly created role of Head of FBO Operations.

Chip White

FlightSafety International has announced that **Chip White** has been appointed Manager of its Learning Center in Orlando, Florida. Andy Johnson, who previously served as Manager of the Center, is now Manager of the Gulfstream Learning Center in Savannah, Georgia.

Gulfstream Aerospace Corp. has appointed aviation veteran **Luiz Sandler** regional vice president of sales for South America. He replaces **Bill Arrazola**, who recently retired.

In his new role, Sandler is responsible for Gulfstream aircraft sales in Argentina, Bolivia, Brazil, Chile, French Guiana, Guyana, Paraguay, Peru, Suriname and Uruguay.

Nextant Aerospace has announced the appointment of James Immke to the position of Vice President of Quality and Safety. Immke joined Nextant Aerospace in August 2010 as the Director of Quality Assurance. He has over 20 years of quality and safety experience in highly regulated industries, including Aerospace and Defense.

StandardAero has announced that it has appointed Leo Mendoza as the new regional sales leader for its Latin American Airlines and Fleets business. Mendoza's appointment complements the company's strategic objectives to expand its business footprint and overall investment in the Latin American region, augmenting its existing market leadership and highlighting its extensive capabilities in turboprop and turbofan maintenance, repair and overhaul (MRO).

Vector Aerospace Corporation has announced that Vector Aerospace - Helicopter Services North America (HSNA) has named Eric Hicks as Regional Sales Director for Western Canada, Alaska and Hawaii.

EUROPEAN UPDATE

COMMISSION'S PROPOSED STATE AID GUIDELINES ARE FIGHTING THE WRONG BATTLE

In response to the European Commission's publication of new guidelines on State aid rules for the public financing of airports and airlines, the European Business Aviation Association (EBAA) and European Regional Aerodromes Community (ERAC) raise several key concerns and call on Member States to carefully evaluate the consequences of the application of the guidelines and how it would impact their own economic appeal.

The new guidelines force Member States as well as regional and local authorities to comply with more restrictive rules, limiting their ability to invest in the development of airport infrastructure (investment aid) as well as in the financing of daily operations of smaller airports (operating aid). The rational is based on a perception of airports as mere commercial entities that must economically "break even" within the framework of their direct activities. This perception, however, is a grave mischaracterisation of the role of airports, wholly discounting the important public service they offer to local and regional communities. Within the scope of the proposal for instance, regional airports with more than 200,000 passengers per year would no longer be able to receive public operating aid.

"According to the well-established principle of subsidiarity, as it is commonly applied for land-use planning, the decision of maintaining, or developing an airport should be left to the *local community*," says Thomas Mayer, ERAC Secretary General. "Indeed, regional airports – their positive effects on the locality they serve – should not be hijacked by the combat – as legitimate as it may be – against distortions of competition amongst carriers."

Both Associations recall that annually, business aviation connects upwards of 100,000 city-pairs. Combined with the activities of regional and other non-scheduled operators, the number of city pairs served across Europe can tally 150,000. This flexibility – which allows air transport to pick up and dispatch individuals closest to their final destinations – would be jeopardised if the proposals set forth by the Commission were to be implemented.

"The Commission must be coherent with its transport policy," argues Fabio Gamba, CEO of the European Business Aviation Association. "It cannot on one hand limit airport access at principle hubs to primarily non-scheduled and regional carriers via its unbalanced policy of slot distribution, and on the other hand put into question the very existence of regional airports. By so doing, the Commission unravels Europe's economic fabric and contradicts its policy of social cohesion."

Both Associations invite legislators not to fight the wrong battle, and invite stakeholders and Member States to firmly express their opposition to an initiative that puts at risk hundreds of aerodromes and airports across Europe, a source of wealth and great value, thanks to its employment opportunities and unique know-how.

EUROCONTROL STUDY PREDICTS FLIGHT GROWTH

EUROCONTROL has released its fourth Challenges of Growth study, which looks ahead to the state of air transport in 2035, or even 2050. It is the first such study since 2008 and it reflects the impact of the economic downturn on European air traffic. Growth is expected to return, with the most likely scenario showing by 2035, and despite the current economic situation, that traffic in Europe will pick up again significantly with an increase in the number of flights to 14.4 million, which is 50% higher than in 2012. This predicted growth is slower than that forecast five years ago, as well as having been delayed for several years.

Plans to increase airport capacity have also been scaled back, with an increase in capacity by 2035 of just 17% (compared to 38% by 2030 reported five years ago). As a result, there will be an increasing number of airports that are running at, or close to capacity. That means that, in the most likely scenario, 1.9 million flights in 2035 would not be accommodated – 12 % of total demand. This scenario would also see more than 20 airports operating at 80% or more of capacity for six or more hours per day, compared to just three such airports in 2012.

This would drive ATFCM (air traffic flow and capacity management) delay up to around 5-6 minutes, taking it from a minor or intermittent to a permanent, major contributor of delay. To put this number in context, the current 2014 EU target for en-route ATFM delay is only 0.5 minutes per flight.

As Network Manager, EUROCONTROL works to reduce such delays and the study sets out a number of ways in which they might be mitigated. The study, which incorporates a number of detailed, technical reports, also looks at how the industry is addressing a number of the challenges it now faces; this includes the need to build resilience to climate change, which is expected to affect aviation in a number of ways.

EUROCONTROL Centralized Services proposal

Meanwhile on 11 July, the Director General of EUROCONTROL, Mr Frank Brenner, the Director General of DG MOVE at the European Commission, Dr Matthias Ruete, and the Director of Air Transport in DG MOVE, Mr Matthew Baldwin, met to discuss in detail the next steps for EUROCONTROL's proposal for implementation of Centralized Services.

Centralized Services are an effort to improve cost-efficiency of the European air traffic network by reducing fragmentation and providing a number of services on a pan-European rather than national level.

They fit within the context of the European Commission's Communication on Single European Sky 2 +, published on 11 June and typically involve handling data. They range from a service for trajectory planning in four dimensions, to support for effectively sharing airspace data in order to optimize civil and military usage.

In March 2013, EUROCONTROL submitted a request for partial funding of the preparatory work for the proposed Centralized Services from the TEN-T 2012 Multi-annual program. However, in the brochure 'Proposal for an Implementing Decision on the selection of projects' published by TEN-T the request was not recommended for funding.

Hence, the Call for Interest for the Centralized Services, originally planned for July, will be postponed until the financial situation has been clarified.

After publication of the TEN-T brochure, EUROCONTROL received a letter from the European Commission in which Dr Ruete reiterates that "the Commission continues to support this proposal strongly, not least because we see the potential for these services to support the implementation of the Single European Sky, including its evolution as proposed under the SES2+ initiative. I am therefore pleased to confirm our willingness to support the further development of the Centralized Services' concept, ensuring a close connection with the SESAR project in particular, through the appropriate funding instruments and processes."

In the evaluation compiled by TEN-T, the assessors noted that the overall quality of the proposal was good, but that it required further stakeholder consultation. Since the document was submitted in March 2013, EUROCONTROL has held twelve workshops, with over 600 participants to elaborate further on the proposal.

In his letter, Mr. Ruete also noted "that the nine initially proposed Centralized Services have now reached a much higher degree of maturity and that they are also better understood by stakeholders also thanks to your dedicated workshops. Of course there are a number of questions where it is clear that stakeholders want to reflect further and we are pleased to continue to work with you on these aspects."

During the meeting, EUROCONTROL informed the European Commission of its intention to develop the Operational Concepts for the nine Centralized Services and to invite all interested parties to workshops in the mid-September - mid-October 2013 timeframe to evolve these even further.

"Since March 2013, the air navigation service providers of the 39, soon to be 40, EUROCONTROL Member States have been encouraged to establish cooperation between themselves and the manufacturing industry so that they will be ready when the Call for Interest is published," said Frank Brenner, Director General of EUROCONTROL. "One of the more than 500 questions posed to EUROCONTROL by stakeholders during our workshops was whether we couldn't provide them with more time to explore the different cooperation options. This delay on the Call for Interest should help and we are looking forward to see even better consortia structures as a result."

BEECHCRAFT SECURES RECORD-BREAKING AIRCRAFT ORDER

Deal includes up to 105 King Air 350i aircraft and associated maintenance services for Wheels Up, a new private aviation membership company, formed by Marquis Jet founder.

Beechcraft Corporation has announced it has secured an order for up to a total of 105 King Air 350i aircraft, valued at $788 million, from Wheels Up, representing the largest general aviation propeller driven aircraft order in history. Wheels Up is a membership-based private aviation program that eliminates fixed costs and provides unparalleled flexibility established by Kenny Dichter and the team that founded Marquis Jet, which redefined private air travel with the first 25-hour fractional jet card program. Beechcraft has been named the aircraft and comprehensive maintenance provider for Wheels Up in North America and Western Europe, with the entire value of the deal totaling up to $1.4 billion.

The first 35 Beechcraft King Airs will be delivered to Wheels Up between now and mid-2015 with the first nine deliveries to be made in 2013. Wheels Up will initially focus on the Northeastern United States. The deal includes options for 70 additional aircraft as Wheels Up expands nationally over the next two to three years.

Bill Boisture, Beechcraft Chief Executive Officer, said, "The Beechcraft King Air 350i is the perfect aircraft for Wheels Up due to its proven track record of tremendous flexibility and efficiency for regional travel. The pairing of the 350i and support from our world-class maintenance organization with the innovative founders and management team of Wheels Up is a winning combination."

Kenny Dichter, Wheels Up Founder and Chief Executive Officer, said, "We are excited to offer the King Air 350i for the first time on an exclusive basis in a national fleet format as Wheels Up redefines private aviation's entry point."

The Wheels Up King Air 350i aircraft will have several special enhancements for Wheels Up members including state-of-the-art interiors, Wi-Fi connectivity and a luxury lavatory vanity. The Wheels Up deal also includes a comprehensive maintenance program from Beechcraft valued at more than $600 million. This includes service for airframe, engines, avionics and propellers; scheduled and unscheduled maintenance, labor, parts and consumables. From its Hawker Beechcraft Services Wilmington, Del., hub, which is strategically located for this program, the maintenance program will also include mobile AOG support.

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UVair FBO NETWORK CONTINUES GROWTH IN SECOND YEAR

Entering its second year in operation, the UVair FBO Networksm announced continued growth, adding Great Circle Flight Services, at the Ted Stevens Anchorage International Airport (PANC), as the network's newest location. The addition of Great Circle Flight Services brings the total number of FBOs in the network to 20.

With the UVair FBO Network fuel brand in place, Great Circle Flight Services is now offering Bravosm Rewards and accepts the EPIC Cardsm and UVair® Fueling Card as the latest offerings to its full service operation.

"We are very excited to have Great Circle join the UVair FBO Networksm. They are a high quality operation at a key gateway general aviation airport. We are certain that the other network locations as well as our loyal flight department customers will benefit from Great Circle joining the network," explains Steve McCullough, SVP Business Development and Strategy, EPIC®. Great Circle President Justin Charon, says "We are pleased to align Great Circle with a dynamic partner who understands the importance of Anchorage as a global crossroads."

Great Circle Flight Services operates 24/7 with facilities which debuted in 2005 providing local and transient aircraft with personal, attentive service and an array of amenities which include; customs and immigration support, licensed contract A&P mechanics, lounges for crew and PAX, courtesy transportation, on-site rental cars and much more.

Its customer base includes many Fortune 500 flight departments that use Anchorage as their primary fuel stop en route between the Far East and North American financial and industrial centers. The Ted Stevens International Airport's (PANC) largest runway is 12,400 x 200 ft, to accommodate all sizes of aircraft.

"After a dynamic first year we're excited to continue seeing expansion in the network," explained Greg Cox, SVP, UVair®. "EPIC's strengths in FBO support combined with UVair's excellence in serving the end user, has proven to be a winning formula, and we anticipate that in our second year, the network will continue to grow with additional FBOs that meet our stringent criteria for service and safety. We will continue to reward our clients' loyalty through incentives and rewards."

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BOMBARDIER ANNOUNCES FINANCIAL RESULTS FOR SECOND QUARTER 2013

Bombardier has reported its financial results for the second quarter ended June 30, 2013. Revenues totalled $4.4 billion for the second quarter ended June 30, 2013, compared to $4.1 billion for the same period last fiscal year.

For the second quarter ended June 30, 2013, earnings before financing expense, financing income and income taxes (EBIT) before special items totalled $257 million, or 5.8% of revenues, compared to $214 million, or 5.2%, for the same period last year.

On an adjusted basis, net income amounted to $158 million, or earnings per share (EPS) of $0.09, for the second quarter ended June 30, 2013, compared to $167 million, or EPS of $0.09, for the same period the previous year.

For the three-month period ended June 30, 2013, free cash flow usage (cash flows from operating activities less net additions to property, plant and equipment and intangible assets) totalled $566 million, compared to a usage of $608 million for the same period last year. As at June 30, 2013, available short-term capital resources of $4.5 billion included cash and cash equivalents of $3.1 billion, compared to $4.0 billion and $2.6 billion respectively as at December 31, 2012. The overall backlog reached a record $65.5 billion as at June 30, 2013, compared to $64.9 billion as at December 31, 2012.

"As expected, our second quarter results showed progress in revenues, EBIT and free cash flow," said Pierre Beaudoin, President and Chief Executive Officer, Bombardier Inc. "Transportation had a good second quarter with increases on all fronts; revenues and free cash flow improved, EBIT margin reached 6.9% and the level of new orders continued strong with a book-to-bill ratio of 1.5."

"Aerospace also performed well with increased profitability and free cash flow, and a record backlog. The CSeries development is making good progress with some of the major milestones already successfully met; the geared turbofan engines are running smoothly and powering key aircraft systems, and the latest software upgrades continue to be successfully implemented. We're now in the final testing stage in preparation for first flight in the coming weeks."

"The outlook for both groups is positive. Our record backlog of $65.5 billion, combined with our significant investments in new products, ensure solid growth in the years to come," concluded Mr. Beaudoin.

Bombardier Aerospace

Bombardier Aerospace's revenues amounted to $2.3 billion for the three-month periods ended June 30, 2013 and 2012. EBIT before special items totalled $107 million or 4.7% of revenues for the second quarter ended June 30, 2013, compared to $99 million, or 4.4%, last fiscal year.

Free cash flow usage totalled $459 million (including net addition to property, plant and equipment (PP&E) and intangible assets of $534 million) for the second quarter ended June 30, 2013, compared to a usage of $504 million (including net addition to PP&E and intangible assets of $481 million) for the same period last fiscal year.

Bombardier Aerospace delivered a total of 57 aircraft during the second quarter ended June 30, 2013, compared to 62 for the same period last fiscal year, and received 82 net orders during the second quarter, compared to 146 for the same period last fiscal year.

The Business Aircraft division received significant orders during the second quarter. VistaJet placed an order for 20 Challenger 350 jets, valued at $518 million based on list price, with options for an additional 20, and an undisclosed customer placed an order for 12 Global 8000 jets, valued at $804 million based on list price. In Commercial Aircraft, Ilyushin Finance Co. (IFC) of Russia firmed up an agreement for 32 CS300 aircraft with options for an additional 10. The firm order is valued at $2.6 billion, based on list price.

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ROCKWELL COLLINS TO BUY ARINC FOR $1.39 BILLION

Rockwell Collins, Inc. has announced it has reached a definitive agreement to acquire ARINC Incorporated, a portfolio company of The Carlyle Group, and a leader in communications and information processing solutions for the commercial aviation industry, for $1.39 billion.

The transaction will bring together two leading players in the growing field of aviation information management, combining ARINC's trusted networks and services with the industry leading avionics and cabin technologies developed by Rockwell Collins.

"Strategically, this acquisition is a natural fit for Rockwell Collins," said Kelly Ortberg, Rockwell Collins Chief Executive Officer and President. "It accelerates our strategy to develop comprehensive information management solutions by building on our existing information-enabled products and systems and ARINC's ground–based networks and services to further expand our opportunities beyond the aircraft."

ARINC broadly touches the entire aviation eco-system, including pilots, operators, maintenance, passengers, controllers, regulators, security, and airport operations. In addition, ARINC provides communications and information processing for the rail, industrial security and public safety segments. Their 2013 revenues are expected to be in excess of $600 million. When completed, the acquisition will shift the balance of Rockwell Collins' business to approximately 54 percent commercial and 46 percent government. "ARINC's strong customer base, high customer retention rates and subscription business model will help the company achieve accelerated growth and benefit from greater earnings consistency throughout the commercial aviation business cycle," added Ortberg.

"We're excited to be joining a company who shares our vision and focus on providing trusted solutions for our customers," said ARINC Chairman and Chief Executive Officer John Belcher. "Rockwell Collins' expertise in managing information on-board the aircraft, coupled with our innovative and reliable air to ground communications services, will be instrumental in providing new integrated information management solutions for our customers..

The transaction is expected to close upon receipt of regulatory approvals and other customary conditions. It is expected to be EPS accretive once certain transaction and integration costs have been incurred.

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FIGHTING THE WRONG BATTLE

By Fabio Gamba

THE REFORMS THAT WERE allegedly required on competition and the way State aids can and must be granted to undertakings have finally climaxed with the announcement in early July by Competition Commissioner Joaquin Almunia of new Guidelines for regional airports, themselves a component of the more general State Aid Modernization (SAM).

EBAA's Secretariat immediately reacted to the announcement of a consultation based on the Commission's proposal, by inviting stakeholders not to fight the wrong battle via a press release that it co-signed with ERAC, the European Regional Aerodromes Community. Why?

We did this – i.e. we decided to confront the European Commission and sensitize the Member States – mainly for two reasons. Firstly, because what the Commission had in mind had nothing to do with classical land-use planning, which is traditionally the competence of local authorities and/or Member States, but the cut-throat battle that Low Cost Carriers and network carriers are giving to each other and the potential distortions that specific categories of regional airports may have on this battle by receiving financial aids. So the Commission ordained that State aids to airports should be further supervised, thus ignoring two (!) previous Commission Guidelines (respectively of 1994 and 2005). But by doing so, isn't the Commission fighting the wrong battle? Why should airports and the local community they serve be hijacked by a competition issue that regards carriers?

This is not a rhetorical question. The air transport value chain, and hence airports, have a natural interest in promoting a system based on sound competition, in general. But, apart from a few cases, there can be no such competition between natural monopolies, which the airports are. So what the Commission should have done was not to dry out the financial support that these monopolies can receive – especially the smaller aerodromes which can't break even solely on the ground of their limited traffic, but rather make sure the aid perceived was not benefiting unduly one carrier over another one.

True, some airports are privatized. In this context, State aids, whether for investment or for operating purposes, can create imbalance between the haves and the have-nots, but we can't talk – at least yet – of distortions of competition amongst airports. There is no real competition, remember? I realise this argument might sound over-simplistic and that there is probably a need for a wider reflection, but as long as the sector hasn't figured out how to transpose the likes of Regulation 1008/2008 for its own purpose, it cannot be considered as a liberalized entity, unlike air carriers, and the few privatizations must then be considered as exceptions that confirm the rule, nothing else.

Secondly, if there is any coherence at all in the transport policy of the European Commission, it is then to treat Business Aviation as a collateral damage. One year ago, EBAA was fighting hard to substantially modify the Commission's initial proposal on slot allocation. In essence, the draft initiative was making it even harder for non-scheduled carriers to have access to congested airports than was historically the case. We succeeded in changing some particularly nasty clauses and in defusing in general the negative aspects of it, just to find out a few months later that, at the other end of the spectrum, regional airports which we make a large use of were now in the cross-hairs of DG COMP.

To state that access to infrastructure is important is a beautiful pleonasm. Yet it seems that it is truer for some categories of airspace users than for others. Infrastructure doesn't stop at airports, it also comprises the airspace. And here again, Business Aviation must remain vigilant if it doesn't want to be marginalised in the near future. Powerful groups are ready to impose exorbitant retrofit and forward-fit solutions for onboard equipment and, under the motto Best Equipped Best Served, operators not capable of showing clean hands will see their access to ATM gradually shrink. That's probably a good script for yet another column in Bart International, but the point here is that access to infrastructure, because it is a finite resource, is not a given, even less so for Business Aviation.

That explains I hope the vehemence of our reaction to the announcement of the Commission on State aids, and why awareness is called for, from all of us, at any time if Business Aviation wants to maintain, if not develop, its position within the air transport sector.

Fabio Gamba, Chief Executive Officer of the European Business Aviation Association.

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JET EXPO SET TO REALIZE RUSSIA'S POTENTIAL

Ever since 2006 when the first Jet Expo kicked off in Moscow, the exhibition has been growing and improving. Notwithstanding the economy Jet Expo Moscow has gone from strength since its launch in 2006. And since its move to Vnukovo-3 in 2011, things have only got better for Russia's biggest BizAv show. This year, Jet Expo promises to retain its focus on quality and bring in more aircraft owners than ever before.

SUCCESS Jet Expo has gone from strength to strength since its launch in 2006. The show enjoys the support of the Russian Business Aviation Association.

By Ivan Veretennikov

In Retrospect

At Jet Expo's inaugural show in 2006, the Business Aviation community saw Russia as the land of milk and honey. It was all about huge premiums and double-digit growth rates. Expensive new aircraft were ordered from both established and new manufacturers, while some buyers from the region converted Soviet and foreign airliners for their needs. Of course, charter sales were booming too – people needed to fly, and plenty of aircraft were available. All this made much noise outside of Russia and CIS, but aside from EBACE there was no meeting point for all interested parties. And despite Geneva being but a few hours away, it is still not the same, especially for busy aircraft owners, as having the exhibition in their home city.

Alexander Evdokimov, then head of fast-growing company Jet Transfer and still a major force behind the exhibition, saw a need and an opportunity, and founded Jet Expo, backed by some major partners.

The show was a record-breaking success. It brought together about 90 exhibitors and 5000 attendees. Despite early plans to have no official static display at all, 8 aircraft were available for viewing in Vnukovo-3. This may

not seem much compared to EBACE or NBAA, but Jet Expo has always been about the quality of its audience as much as quantity, and buyers of aircraft and services, ready to pay real money almost on the spot, attended the show in significant numbers.

The big problem that struck visitors in 2006 and remained in place until 2011, was that the pavilions in Crocus

Expo, a large exhibition facility in the north of Moscow, were separated from Vnukovo airport by 20 miles of congested roads. Some round trips took up to 4 hours, irrespective of whether you went by car train or bus: at that point, there were no bus lanes in the city. Such a drawback meant that the private and corporate owners went only to Vnukovo to see the aircraft, while the industry professionals were confined to visiting each other's stands.

Nevertheless, the feedback was overwhelmingly positive. The reception can be summed up by Mikhail Yushkov, the then marketing manager of Aviamarket, a dealer in Robinson helicopters."We can only say good things about this exhibition. We fully support this idea and the organizers of the show. Long before Jet Expo opened, we were convinced that such an event was not only possible, but absolutely necessary for Russia. It would be great if we had a specialized alternative to MAKS, our own Business Aviation show. It will, perhaps, be smaller, but it will represent our specific market segment and bring together the right audience. We are a regular participant of MAKS and fully welcome it as an important event. It is, however, more than anything, a huge celebration of aviation and a big air show. For exhibitors like us this is not the best place to market what we have on offer. Our goal is to sell aircraft, while out of the thousands of people who visit MAKS barely a few may actually have serious intentions about buying a helicopter."

Since then, Jet Expo has grown to be an international exhibition in its own right, with a clear objective and select audience, while helicopters found another platform: HeliRussia. The Russian Business Aviation exhibition, however, still had to go through some changes to become what it is today.

Reaching Maturity

The big step forward for Jet Expo came in 2011 when the long-awaited announcement came: Jet Expo would now be held in Vnukovo-3. A 5000 sq m hangar was allocated to hold the booths, while the static display awaited visitors just outside. Alexander Evdokimov then stated: "This had to happen one day, and we have worked out all the details and reached a conclusive agreement with Vnukovo-3 to hold Jet Expo there. This change was met with great feedback from exhibitors and attendees. It's as if the exhibition was born again."

Another major advantage of this setup was the proximity of Vnukovo-3, one of the busiest FBOs in Europe. Charter flyers and aircraft owners finally got a chance to meet everyone they wanted to, before or after their flight, not having to plan the visit in advance. This brought additional high net worth traffic to the exhibition, helping Jet Expo confirm its unique status as the gateway to customers in Russia and CIS.

Another problem – or, rather, mystery – of Jet Expo has always been its business to luxury ratio. Booths of companies offering down-to-earth maintenance solutions stood next to cigar lounges, while the same stage was used to discuss legislative issues and to award the best-looking flight attendants. This can be explained by the indecisiveness of the industry itself, which hasn't made up its mind about whether Business Aviation is a luxury or a business tool. The principal is usually the decision maker behind the acquisition, as opposed to corporate flight departments, and as much thought and time is given to interior design as is to operating efficiency.

Hence the mix of business-minded propositions with outright luxury goods, which has been in one way or another a constant feature of Jet Expo over the years, and something that set it apart from BizAv shows in Europe and the US.

MOVE
Things have even got better since its move to Vnukovo-3 in 2011.

Jet Expo Today

This year, Jet Expo will be organized by Vnukovo-3 itself, removing the need for middlemen between the venue and exhibitors. According to Konstantin Lobanov, Jet Expo's Project Manager, this will streamline processes while keeping the high quality of the exhibition and attracting even more of the target audience: "We aim to preserve the best features of Jet Expo, make it more comfortable for both exhibitors and attendees, and promote it to the target audience using our own contacts in the media, as well as the most obvious – and perhaps most effective – channel: Vnukovo-3 itself. Thousands of aircraft owners and charter flyers, as well as official delegations and corporate groups will go through our Terminal by the time the exhibition starts, and they will all know that it is the place to be. This unique promotional effort, alongside our streamlined organizational capabilities, will ensure that we have more attendees from the target audience than ever before. And we sincerely hope that our returning exhibitors, almost all of whom have already booked booth space and static display areas, will be joined by more new companies interested in this vibrant market," he said.

Alexander Evdokimov, the founder of the exhibition, added: "If there was ever a time to exhibit in Russia and CIS, it is now. This is one of the few markets that has retained its growth despite the economy, and Jet Expo is the place to be for a company that wants to explore new opportunities and meet with aircraft owners face to face."

Since the beginning, Jet Expo has enjoyed the recognition and support of the Russian United Business Aviation Association. Anna Serejkina, Executive Director and Member of the Board of RUBAA, said: "The RUBAA supports Jet Expo. It is definitely an effective platform for industry communication, marketing, and sales. In 2013, RUBAA will for the fourth time organize a collective booth for brokers and operators. This project has been well-received by our members over the past years, and we plan to organize such national pavilions in collaboration with other national and regional Business Aviation associations. Besides, Jet Expo has always been and remains a serious convention platform, and we invest our resources into building a strong conference program for exhibitors and attendees of the show."

Another sign of interest is the early booking of booth space and static display areas by participants. Danielle Boudreau, Executive VP, Marketing, Branding, and PR at VistaJet, remarked: "Russia is a key market for VistaJet and Jet Expo is a great opportunity for us to show our top products to customers in Russia and CIS, it's great exposure, particularly for our aircraft. For 2013, VistaJet is returning to Jet Expo with our Global 6000 aircraft on static display."

WISDOM
Now is the right time to exhibit in Russia and CIS says Alexander Evdokimov, founder of the exhibition (center). Russia is a key market for Vistajet returning to Jet Expo with a Global 6000 (down).

By Paul Walsh

REACHING MATURITY

It seems hardly a month goes by without hearing of a new show or conference dedicated to a particular niche of the aerospace industry. As we have learned, some of these will work, some will flop and a few will flourish. One of those select few is Jet Expo and seven years since its inception OEMs are firmly behind it, which is perhaps testament to the growing importance of the Russian market

The big airplane manufacturers will also be out in force this year, for instance, **Bombardier** has big plans for the Russian market.

"Russia is an important market for us, and we continue to develop long-term relationships, "The Russian market for business jets truly is prevalent in Moscow," said Christophe Degoumois, Vice President, Sales, Russia, CIS, China, Asia-Pacific and Australia, Bombardier Business Aircraft. "It is a market that retains true brand loyalty and this year's show is just one such chance for us to promote our strong brand and build further upon our existing relationships.

Brazilian manufacturer **Embraer** will be pushing its range of aircraft along with its strengthened customer support capabilities in the region. Last year Embraer signed an agreement with Jet Aviation - Moscow Vnukovo to reinforce the level of service offered to Russian Legacy 600/650 customers by establishing line maintenance service able to respond 24/7 with certified mechanics, special tools and a readily available onsite spares depot.

Based at Vnukovo International Airport (VKO), Moscow's busiest hub for corporate aviation, Jet Aviation mechanics are now ready to provide support to Legacy 600/650 customers. A spares depot, with more than 400 part numbers, worth $US1.6 million, will be fully stocked by mid June.

"We are delighted to improve our Customer Support & Services in Russia with Jet Aviation - Moscow Vnukovo to further demonstrate our commitment to provide the best support for our Legacy 600/650 family customers in the region," said Antonio Martini Neto, Embraer Vice President, Customer Support and Services, Europe, Middle East and Africa – Executive Jets. "Russia has a significant fleet of Embraer Executive Jets and is a very important destination for business jets."

Through this partnership, the Embraer Executive Care (EEC) will also be available in the region as an option. EEC is a comprehensive airframe maintenance program which allows simple and predictable execution of maintenance on aircraft. It provides maintenance support for a given period with fixed hourly fees, transferring the risk of maintenance costs variation from the customer to Embraer. also be present and will certainly be pushing their Lineage 1000, which received its Type Certificate from the Interstate Aviation Committee (IAC), paving the way for Russian customers to register and operate the type in Russia.

Meanwhile **Gulfstream** will be hoping to capitalize on the Russian's love for large long range Business Aircraft. Larry Flynn, president, Gulfstream, noted recently that the number of Gulfstream's in Russia is growing considerably and that it has grown six times over since 2007."

The G550, can fly nonstop from Moscow to nearly every major city thanks to its 12,500-km range. For example, the G550 can fly from Moscow to São Paulo or from Moscow to Perth, Australia, nonstop. The G150 can fly 5,500 km at Mach 0.75, meaning someone can fly into London City from Moscow in the morning, conduct business in the city and be home for dinner that night.

Jet Expo is an important milestone on **Dassault's** calendar this year, as the manufacturer moves to consolidate its partnership with Avia Group in creating a major Russian hub at

PREVALENT
The Russian market is dominant in Moscow says Bombardier's Christophe Degoumois (center).
We capitalize on Russian's love for large long range aircraft reveals Larry Flynn, president Gulfstream (down).

Sheremetyevo Airport for Russian-based and transient executive aircraft. It would also provide a solid presence at the city's largest airport, which is projected to experience rapid growth in the coming years.

Initially, the 3 million Euro (U.S. $4 million) Sheremetyevo facility will serve Falcon 7X and Falcon 900 EASy Series aircraft. It will be capable of line maintenance services up to A check, along with troubleshooting and AOG services. In 2014, Falcon 2000 EASy Series (EX/DX/LX) models are expected to be incorporated. Ultimately, the installation will offer a full line of maintenance services up to C check.

The ASC is set to be located near the Avia Group's new Terminal A passenger facility, which opened earlier this year. It is expected to employ more than 12 engineers and technicians and be capable of handling several aircraft at a time. Initial training is already under way.

"Russia is once again one of the most active business jet markets and we are looking to leverage our long experience in the country to better serve customers' needs there," said Gilles Gautier, head of Dassault Falcon sales for the Eastern Hemisphere.

Cessna is also in a strong position in Russia after last year's order for 15 Grand Caravans from Russian state transport leasing company Gosudarstvennaya Transportnaya Lizingovaya Kompaniya (GTLK).

As Pana Poulios, Cessna's European sales director for propeller aircraft, points out: "We're delighted to have GTLK as a customer. Grand Caravans are ideal for Russia – reliable, fast, versatile and very economical, with low maintenance requirements. This order is a very important step forward for the Grand Caravan in Russia."

"We are seeing a large, and growing, demand for Caravans across the Commonwealth of Independent States (CIS)," continues Poulios. "We have delivered three Grand Caravans to the region and are in the process of delivering three to Siberia, plus one to Kazakhstan."

The company notes that inquiries are picking up on a daily basis throughout the CIS, with some operators looking to expand while others need to replace an aging fleet. "Economically, the situation in the CIS is improving all the time," says Poulios. "We're very pleased the Russian government is supporting aviation with subsidized leasing and Cessna Finance Corporation is assisting by offering lease contracts and/or financing to CIS operators."

OPTIMISM Dassault is creating a major Russian hub at Sheremetyevo Airport (top). Cessna reinforced its position after GTLK's order for 15 Grand Caravans (center). Beechcraft bets on a great deal of promises for turboprop opportunities in Russia (down).

And as far as **Beechcraft** is concerned, the Russian market holds a lot of promise for turboprop operations.

"The leadership of the entire HBC product line is evident in this region as our products deliver the perfect balance of performance, reliability and value for the Russian and CIS markets," a spokesperson from Beechcraft said. "With such a strong reputation

already established here, we see great potential for growth as the benefits of flying privately become more established and accessible."

At this year's show we'll see some new faces to the Russian market such as **Nextant Aerospace** which recently appointed FortAero Baltic Business Aviation Alliance ("FortAero") as the exclusive sales agent for Russia and CIS. FortAero has more than 16 years of experience with the Russian and CIS business aviation market and will play a key role in defining Nextant's sales, marketing and customer service strategy in the region.

Established in 1997, FortAero sells, operates and manages aircraft throughout Russia and CIS territories. The company has offices in Tallinn and Moscow and provides services to entrepreneurs and governments globally. The regional dealership will do business as Nextant CIS with the initial two aircraft sold to unnamed customers for executive transport. The aircraft come with full factory warranties, a worldwide network of owned and authorized service centers and a global parts distribution infrastructure supported by Directional Capital's Aerospace Products International (API).

"We see strong potential in Russia and CIS region and FortAero has the knowledge, experience and network to meet the demand", said Peter Walker, Nextant Vice President, EMEA and APAC. "It is a young and expanding aviation market which understands the convenience of business aviation. Light cabin aircraft have traditionally struggled in the Russian market due to limited range. This is not a problem for the Nextant 400XTi. With a 3,710 km (2,003 nm) range the aircraft can easily fly from Moscow to London, Barcelona or Cairo without refueling with the quietest and most comfortable cabin in its class."

With a rapidly growing economy and the sixth largest GDP in the world, Russian government and business leaders are looking for time-efficient and cost-effective travel to Europe, the Middle East and within the Commonwealth. The Russia/CIS entry-level jet market is estimated to be 69 aircraft valued at $225 million and growing. However, the total Russia/CIS market, including aircraft owned by residents but registered abroad, is estimated to be at least three times this size.

"The Nextant value proposition is perfect for Russia and CIS", said Vadim Opryshko, CEO of FortAero and President of Nextant CIS. "The 400XTi has the comfort, range and technology the local market expects with a price half that of the competition.

We are seeing increasing demand for cost-effective business jet travel to Europe and the Middle East for business people and their families. There is also a strong and growing market to provide supplementary lift for large corporations who currently operate large cabin aircraft but want a more cost effective solution for their managers, lawyers and key advisors."

Helicopters too well make a big showing at Jet Expo's 2013 installment with **Eurocopter** and **AgustaWestland** with sizable installments. Recently AgustaWestland announced the signing of a contract between the JV and Exclases Russia for the supply of five AW139 helicopters which will be assembled at the HeliVert plant in Tomilino near Moscow. This contract, which includes a mix of five VIP and utility-configured helicopters, follows the first contract signed between HeliVert and Exclases Russia for Russian-built AW139 helicopters which includes an AW139 that is scheduled to be delivered in June. This purchase further expands the presence of the AW139 model in Russia where over 20 have been ordered so far and almost 50 across the CIS countries.

This medium multi-role helicopter is superior to all other twin-engine helicopters in its class in terms of speed, flight characteristics and passenger cabin size. Combining a streamlined fuselage, latest avionic equipment, spacious cabin and low acoustic signature, the AW139 sets a new standard in the market. The AW139 has a maximum cruise speed of 306 km/h, maximum range in excess of 927 km, maximum flight time of five hours and outstanding performance. It is the only helicopter in its weight class that can be equipped with a Full Ice Protection System (FIPS), which makes it possible to fly into known icing conditions.

The AW139 is powered by two Pratt & Whitney Canada PT6C-67C turboshaft engines, equipped with full-authority digital engine controls (FADEC) and each rated at 1,679 SHP for take-off. The maximum take-off weight is 6400 kg with an option of 6800 kg. The helicopter is configured for one or two pilots and can carry up to 15 passengers or 6-8 passengers in VIP/corporate transport configuration.

DEALS Nextant Aerospace recently appointed Fort Aero as the exclusive sales agent for Russia and CIS (left). AgustaWestland expand their presence in Russia and CIS with the Russian built AW-139 (right).

RUSSIA – THE LAND OF UNKNOWNS

BIG Russians prefer big airplanes. Rossiya Illyushin Il-96-360 pictured.

In Business Aviation circles worldwide people view Russia as a promising market. Through force of habit, the whole of the CIS is also included in the name, Russia – and for good reason, because all paths lead to Moscow, the heart of business in the region and one of the biggest BizAv hubs in the whole of Europe.

By Ivan Veretennikov

Even Russians themselves find the local Business Aviation market mysterious. There are some fundamentals that have stayed the same over the past several years –such as the popularity of Moscow airports, difficult legislation, the love (and need) for the bigger business aircraft, and the typical destinations. However, it is still remarkably difficult to say, how many business jets there actually are in the region, who owns, operates, and services them, or to count the total number of business flights. Besides, there is the "CIS" problem. Some sources say "Russia" meaning "the Russian Federation", others understand "Russia & CIS". With this in mind, we will look at Business Aviation in the Russian Federation and, where possible, in the CIS, and briefly cover the most important aspects of this market to give the reader a general overview.

The Eternal 400

Ask a Russian Business Aviation professional how many dedicated business jets there are in the region, and he'll usually say "four hundred". This number has been around since at least 2010 and seems just as good as any other. For one, the analysts at Wealth-X consider that Russia "is home to an estimated 1,200 ultra high net worth individuals having a collective wealth of at least US$ 640 billion." The aprons of central airports, especially in Moscow, bear this out: there are many planes out there.

On the other hand, there are under 60 foreign manufactured business jets actually registered in Russia, and just over 100 registered in the whole of the CIS. In terms of the state budget, this is exactly how many aircraft there are in the region. And although some big names among European operators are known to have been established to manage Russian fleets, for all practical purposes they have nothing to do with the country. Even the jobs they create are mostly in Europe. There are many reasons for this reluctance to register aircraft in Russia, even despite some of the import duties being cancelled in recent years. Alexander Evdokimov, President of Jet Group, sums it up very elegantly: "At the moment the local legislation is not a comfortable environment to keep a business jet in."

A recent publication on the popular local website BizAvNews claims that "according to various experts, there are now in total between 495 to 515 business jets controlled by Russians." And because the "various experts" have no name or clear methodology, we consider this just as good as any other number between 58 officially registered and 1200 potentially possible business jets.

Flying Big

A popular notion is that Russians (owners from the CIS included) prefer big airplanes. There are always a few Learjets and Citations sitting on the tarmac around VIP terminals, but the majority of aircraft are of the large cabin and ultra long range class. Since the economy became unstable in 2008, business aircraft owners became more cautious with their money, and the times when slots for aircraft were acquired for millions of dollars are in the past. In terms of modesty, however, today's flyers in Russia are still far from their counterparts in Europe and especially the US. Well-known interior designers, when asked about customers from that part of the world, usually say that Russians have become among the most demanding, creative, and knowledgeable clientele. However owners generally argue, "if I spend millions on an airplane, I might as well have it done my way."

And expensive long-range aircraft aren't merely for show. Stretching 9 time zones and about 12 flight hours, Russia in itself offers enough flights that only such aircraft can tackle. Most of the popular destinations abroad, ranging from London, New York, and Dubai to the Maldives, Bali, and Cancun, are also a great distance from Moscow, the heart of Business Aviation in the region.

Another important consideration is the typical owner. The demand in the region, as well as the distribution of wealth, comprises an inverted pyra-

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mid: according to Wealth-X, 6% of the Russian UHNWIs controlled up to 80% of all the wealth owned by the UHNWIs in 2011. The most opulent individuals, therefore, can buy any aircraft they like, such as the Airbus A340 allegedly owned by Alisher Usmanov.

According to AdLux representative Svetlana Gibert, Cote d'Azur FBOs are preparing for yet another Russian season: interiors in Nice have been adjusted to meet their expectations, including small things like Russian press and the bigger features - children's playing areas, for example. Last year, Svetlana says, the number of business jets flying in from Russia was so great that many had to be parked in nearby Olbia.

The Little Things

Smaller aircraft are slowly finding their way into Russia and the CIS. Not too many of them are the lighter jets, because these are too small and expensive for the flight range they offer. Turboprops, on the other hand, such as the sturdy Cessna Grand Caravan are becoming very popular in remote regions.

Alexander Evdokimov, whose Jet Group is the local Cessna representative, says:

"We have already delivered 20 Grand Caravans in the region, and are selling more. This is the aircraft of choice for regional transportation, and each plane logs on average between 500 and 900 hours per year. As for the smaller piston machines, there are not too many people who can afford to buy them new for half a million dollars, then pay the extensive duties and VAT. As of today, we have only really delivered the Cessna 172 to flight schools – about 30 aircraft in total."

EXPANSION
Pulkovo-3 operated by the same group of companies as Vnukovo 3 was recently opened in St Petersburg (top). Dexter air taxi planned to operate 200 Pilatus PC-12 in Russia (center). The Cessna Grand Caravan is popular in remote regions of Russia (bottom).

Alexander Shvydkin, anchor and head of Pilot TV, speaks about private owners: "I am witnessing rapid growth of the piston and turboprop fleet, especially in the south of Russia – Kuban, Stavropol, Rostov. Private airfields are getting longer runways, and a lot of people are bringing in preowned piston aircraft from the US. The big problem is that Russian legislation forbids the manufacture of ethyl petrol, and all avgas is imported. Moreover, it is subject to its own import duties, which makes it quite expensive. If this problem is solved, even more people will fly."

As for Dexter, the well-known air taxi project that was supposed to have 200 or so Pilatus PC-12 aircraft based in all major cities in Russia, there has been no news of the company lately. One thing is for sure, though: it is far from reaching its ambitious goals. Arguably, the proposed business model has not even worked out in the much more developed US market, so the chances of it picking up in Russia & the CIS had always looked rather thin.

The Business

If acquisitions of new and preowned jets may have slowed down, business flying had never stopped one bit. Vnukovo-3 (VKO) traditionally holds one of the top spots in the Avinode Business Intelligence report as the most popular arrival and departure airport in Europe. What's more, in some places like the south of France Russian aircraft form the bulk of VIP traffic.

Alexander Evdokimov confirms that although some charter broker companies may have gone out of business, the core brands such as Jet Transfer are generating more flights even in the hard times: "People have to fly, and in many cases only a business jet will do. We are seeing a constant demand for our services in this field."

For the Union

The leading companies working on the market are brought together under the Russian United Business Aviation Association, or RUBAA. The association now has more than 80 members (some of them from abroad), and is the force that will eventually change the legislative and regulatory environment in the region to help Business Aviation prosper. Anna Serejkina, RUBAA Executive Director and Member of the Board, comments: "We are currently concentrating on three major issues – the cancellation of customs duties for aircraft with a MTOW up to 2 tons, the creation of

Join us at this year's NBAA to help us celebrate our 25th anniversary, and thank you for a quarter century of support. We'll be hosting a cocktail hour to raise a glass to you, as well as sharing new products, new services, and new ways for you to save money, generate new business, and stay ahead of the competition. What great reasons to celebrate!

[celebrate]

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On the Ground

236 general aviation airports are listed in the Russian registry. These include 69 international airports that the law defines as: "Airports that are open for the arrival and departure of aircraft performing international air transportation, and that offer customs, border, sanitary, and other control." This basically means that there are 69 airports in the whole of Russia that function in a similar manner to airports anywhere else in the world. Out of them, only a handful have seen significant Business Aviation traffic. Moscow remains the undisputed leader for the whole region, and Vnukovo-3 is still the single most popular airport for business jets.

separate aviation rules for Business Aviation, and the facilitation of customs formalities to make it easier to bring business aircraft into Russia."

RELIABLE HeliVert AW139 is a joint venture between AgustaWestland and Russian Helicopters (top). UTair is operating Canadair Regional Jets from St Petersburg (center).

The Association is active in promoting pro-BizAv ideas in state institutions such as the State Duma and Federal Council (lower and upper chambers of parliament), and the Ministry of Transport and has already been successful in cancelling customs duties for aircraft under 19 seats and with a MTOW between 2 and 20 tons. Another important direction is organizing various conventions and forums to maintain a direct link between government officials and the business community.

New FBOs (or "VIP terminals, as they are known") are appearing, however. Terminal A in Sheremetyevo, run by Avia Group, is one. Pulkovo-3, operated by JetPort (not coincidentally sounding similar to VIPport, which operates Vnukovo-3), is another. Ostafievo, the home base of Gazpromavia, is the only dedicated Business Aviation airport in the country.

At times of key global events, such as the International Economic Forum in St. Petersburg or the Winter Olympics in Sochi, the aprons of corresponding airports do and will get packed with dozens of business jets. On normal days, though, Moscow is still the busiest hub, although the popularity of the above locations, alongside some extracting sites and capitals of nearby countries such as Kiev and Almaty, is gradually growing.

Room for improvement is also abundant in the maintenance and repair business. Today, line maintenance is offered in Moscow for all popular business jet types, and AVCOM-D of Domodedovo (DME) is even certified to perform the most complex jobs on Hawker models, but generally major repairs and checks still require owners to fly their aircraft outside of Russia.

The Rotorheads

A few words have to be said about rotary-wing aircraft. Unlike fixed-wings, they are popular in all shapes and sizes, starting from private pilot-owner Robinsons and going up to corporate Mil Mi-8s, but are also actually manufactured in the country. HeliVert, the joint venture between AgustaWestland and Russian Helicopters, delivered its first AW139 of local assembly to a VIP customer this year. More are coming down the line, and combined with Mi-171 (a modernization of the Mi-8) and the upcoming Mi-38, there is enough local produce on offer for wealthy individuals and large corporations. Compared to the Sukhoi Business Jet, which is still a project with unclear prospects, helicopters in Russia are finding many VIP customers. Almost 300 Robinsons and 180 turbine helicopters of foreign make are already operated in the country under the RA register.

A Bright Future

The Russian market definitely holds much promise, both in the sheer capacity for new deliveries of aircraft (Bombardier, for example, predicted 525 new business jet deliveries to Russia & CIS between 2012 and 2021) as well as – and even more so – in the development of services: infrastructure, maintenance and repair, crew training, financing, ownership programs and many more. In the words of Anna Serejkina, "We suppose that the Russian Business Aviation market will continue its growth and will be an engine for the entire European market in the future."

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RUSSIAN BUSINESS AVIATION NEEDS VAT TAX EQUIVALENCY WITH THE EU

By Derek Bloom
Partner, Capital Legal Services, Moscow

Only approximately 10% percent of the 450 business jets understood to be owned by Russian companies and individuals are registered in Russia, or operated by Russian operators. According to information provided by the Russian Ministry of Transportation, there were a total of 29 foreign-manufactured business jets registered in Russia as of November 2012. According to information provided in May 2013 by the aircraft owners and pilots association, there are a total of 47 foreign manufactured business jets included on the AOCs of Russian operators, suggesting that 18 foreign-registered, foreign-manufactured have been customs-cleared and are operated by Russian operators

Russia is foregoing large revenues that it could earn if more of the other 90% of existing Russian-owned, foreign-manufactured business jets were registered in Russia or based in Russia. If the typical annual operating budget for a business jet is in excess of EUR 2,000,000, and 400 Russian owned aircraft are expending their budgets in Europe, then Russia is foregoing EUR 800,000,000 in potential domestic business activity annually. If one takes a conservative view that, in the presence of an exemption from import VAT for business jets in Russia, at least 100 Russian-owned business jets would be imported to Russia, Russia is annually foregoing EUR 200,000,000 in revenue that could be earned in Russia.

Aside from avoiding import VAT, there are several other reasons why Russian owners choose to register their aircraft outside of Russia. But, several Russian owners, who feel very confident about their personal and business situations in Russia, have told me that they would strongly prefer to register their aircraft in Russia, except for the single reason that they cannot afford to "waste money" paying Russia's 18% import VAT. Russia's import VAT may be easily avoided by registering their aircraft in Europe instead. If a Russian individual were to import an aircraft to Russia, the cost of the import VAT may become an unrecoverable cost for him or her. In contrast, if a Russian business earns significant VAT from the domestic sale of goods and services, it can recover the cost of import VAT by offsetting its VAT inputs against this VAT expense.

Over the border in the European Union, the EU has issued a Directive that all EU member states shall allow an exemption from import VAT if an aircraft is imported and placed on an AOC for commercial use. This exemption from import VAT in the EU, and the non-existence of VAT in the US, are the single largest reasons why approximately 400 Russian-owned business jets are registered in the EU and the US - anywhere but in Russia.

Until Russia creates a comparable exemption from import VAT as in the EU, Russia shall not realize the potential of the Business Aviation industry to generate a substantial revenue within Russia. Instead, Russia shall continue to see the export of very substantial revenue to Europe and the US operators by owners of business aircraft.

An exemption from import VAT for aircraft to be used commercially in Russia should also apply to commercial airliners as well as to business jets. An owner of a Russian airline that flies foreign manufactured regional jets on regional routes makes the compelling argument that the application of import VAT to his airline's purchase of aircraft causes him to purchase older, used equipment, when he would prefer to purchase new or newer aircraft.

The airline owner points out that the Russian government's treasury would lose no money if there were an exemption from import VAT for aircraft that are imported to be used commercially. The choice really is, shall the Russian Customs Service collect Russia's 18% import VAT when an aircraft is imported, giving rise to an airline's right to retain the same amount of VAT charged and collected on ticket sales to passengers? Or, shall the Russian Tax Service claim that same amount of revenue for the treasury as VAT on ticket sales that would not be offsetable against import VAT because

RATIONALE
The Russian government's treasury would lose no money if there were an exemption from import VAT for aircraft used commercially.

the airline did not pay import VAT with regard to new aircraft?

Seen from this point of view of following the money (always the best guide), the choice is a purely political question within Russia about which bureaucratic organization shall claim to be "earning" this money for the Russian treasury. Presently, the Customs Service makes that claim. And, thinking about why that is so is where things get interesting.

Presently, Russian regulations and unofficial practices allow the extensive operation within Russia of foreign-registered aircraft. The Russian Customs Service accepts at face value representations that aircraft have been brought to Russia to be operated privately on domestic flights. Rumor has it that many such aircraft are in fact used on domestic commercial flights, which would comprise illegal cabotage. Similarly, Rosaviatsia issues flight permits for domestic flights that are declared to be private, while, rumor has it, many such flights are actually commercial flights. Reports are that 75% of domestic "private" flights are, in fact, commercial. Russian operators of foreign-registered aircraft carefully refuse to operate their aircraft on commercial flights that are documented as private flights since the risks entailed are substantial, and prefer to see foreign operators operate such flights. Further, the supporting businesses for Business Aviation in Russia have geared themselves around servicing transient foreign-registered aircraft, and earn quite high fees for doing so. Accordingly, Russian regulators and leading industry players have gotten quite used to things as they are, though things as they are may not be in Russia's best interests.

Possibly, the Putin Administration's desire to embrace policies that would cause business to grow in Russia presents a new opportunity for necessary tax reform, the creation of an exemption from import VAT as in the EU, and necessary and regulatory reform, a clampdown on cabotage flights within Russia, that is required to stimulate Business Aviation in Russia.

BREAK
The Putin Administration wants to embrace policies to develop business growth in Russia.

The arguments that Russian airlines can make provide further support for the exemption from import VAT that

Russian Business Aviation needs. Russian airlines argue that, if they did not have to pay import VAT, they could acquire and operate more, newer and safer aircraft, and there could be more regional flights and interconnections across European, Central and Eastern Russia. Presently, Russia has an exemption from both import VAT and import duties for Boeings and Airbuses of certain sizes that are used by the national carriers. But, Russian regional airlines do not have a similar exemption for the regional aircraft that they need. There are reports about even Aeroflot and Transaero wanting to back new low cost operators that they would own. Those start-ups would have lower upfront costs if they do not need to finance the cost of import VAT.

Leading global business aircraft manufacturers are convinced that, if there were an exemption from import VAT, more aircraft would be purchased by Russians for use within Russia. Some of the reasons are geographic. The present state of affairs with most business aircraft based at nearby airports outside of Russia works well for foreign-registered aircraft that may be ferried to Moscow and St. Petersburg. But aircraft to be operated further East in Russia, and across Siberia, must be customs cleared. It is not economically viable to ferry business aircraft East of Moscow. Accordingly, the present state of affairs is discriminatory against all of Russia to the East of Moscow and St. Petersburg and frustrates the acquisition of business aircraft by owners East of Moscow.

In sum, a large-scale Business Aviation industry cannot be grown in Russia while the industry is dependent on foreign-registered aircraft, and while there are significant tax impediments to bringing aircraft to Russia, rather than an equivalence in tax costs between Russia and the EU or US, and while there is an appearance of pervasive regulatory irregularities in the operation of foreign-registered aircraft within Russia.

By Richard Koe,
Managing Director Wingx Advance

RUSSIAN MARKET MOVES UP A GEAR

Business Aviation across Europe has faltered and flagged over the last 18 months. So far in 2013 it's slipped a further 3% in terms of flight activity, compared to 2012. But on Europe's periphery there are bright spots. The largest of these is Russia, where growth in Business Aviation activity has been more or less constant since the market rebounded from its slump in 2010. Year to date 2013, flight departures from Russia have increased nearly 5%.

Europe would like Russia to be a motor for its own halting recovery, but the familiar drawbacks of its under-regulated and poorly equipped Business Aviation infrastructure continue to sew doubts. These were under the spotlight at this year's EBACE panels showcasing emerging markets. Onerous import duties and still less than cast-iron ownership rights continue to limit the registered fleet. In fact only an estimated 29 of the estimated 400 Russian-owned aircraft are registered and managed inside the country. Meanwhile illegal charter and non-permit cabotage flights are reportedly still rife.

RUSSIA COMPARED TO EUROPE, YTD GROWTH
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Change on the Horizon

The Russian industry's association and its leading players claim the picture is changing. Ownership rights been improved by federal law. Operational restrictions on foreign registered aircraft parking, landing and over-flight permissions have eased. But that's not yet visibly allaying the concerns of purchasers and their lenders; there were just 33 aircraft delivered into Russia over the last 3 years, compared to over 140 to the UK for example. Consequently most operators inside Russia have relatively small, corporate-dedicated flight operations, such as Gazprom Avia and Lukoil Avia.

More than one quarter of recent aircraft deliveries into Russia are ultra-long range business jets. This reflects the more general preference across all Russian-owned aircraft for range and premium cabin. In part this is a need for prestige for high net worth individual buyers little affected by the economic recession in Europe. But increasingly important to these individuals are the emerging business opportunities in far flung global markets. Hence their need for best-selling Russian-owned aircraft like the Bombardier Global Express, Gulfstream 550 and Dassault Falcon 7X.

Russia is not just about large jets. In fact 25% of the fleet of active aircraft inside Russia is comprised of turboprops. Dexter Aviation, for example, stands out as Russia's 'air taxi' operator, with a fleet of Pilatus aircraft. But its modern turboprop fleet and Western-imitative business model is more the exception than the rule. The majority of Russia's turboprop fleet is ageing and quite probably operating in the grey zone of illegal charters. No doubt, however, these are the work horses for this country's vast interior otherwise under-served by the limited fleet of imported modern jets.

BIG
More than one quarter of aircraft deliveries into Russia are ultra-long range business jets.

High Utilization

Russian business jet users' preference for large jets is reflected in utilization statistics. Charter departures in heavy jets comprise 60% of all activity, and the aforementioned ultra long range aircraft activity is more than 20% up this year on last. This contrasts with the mid and light sectors for which negative activity growth closely resembles the European average. To take a few examples, , the Bombardier 850 flew 250 charter missions from Russia in May 2013, 50% up year on year, the NetJets stalwart Hawker 700/800 series activity is holding its own this year, but the midsize Learjet 60 activity slipped 10%.

Notable from this analysis are the 770 charters flown by ACJs out of Russia in May 2013, compared with just 258 charters operated by the Citation XLS. In Europe as a whole, the XLS is by far the most popular charter aircraft, and in May flew five times the number of charter missions operated by ACJs. In part this contrast reflects the standout appetite for bizliner 'bling' in Russia, in part the impracticality of operating light and even midsize aircraft in Russia due to range limitations. Manufacturers will hope that the next generation of light and midsize jets – the likes of the Citation Longitude and Learjet 75 –overcomes this bottleneck.

Due to the limited domestic owned-fleet and opaque domestic charter market, foreign registered aircraft play a key role in supporting Business Aviation in Russia. This applies most to Western Russia, which is more easily accessible, and better supported with airports, dedicated FBOs and maintenance centres. In both Moscow and St Petersburg, Vista Jet and NetJets claim double digit growth rates in acquiring new block-hour customers. Overall, fully 64% of all Business Aviation flights from Russia are charter. This compares with a European average of 40%. And whilst charter activity across Europe is stagnant in 2013, in Russia flight activity grew 5.8% in May.

The surge in Business Aviation activity in Western Russia is bringing clear benefits to its leading airports. Moscow's airports have benefited most, led by Vnukovo, which captures over 80% of all Business Aviation departures from Russia. Its 4,956 departures year to date rank Vnukovo 4th amongst all European airports (behind Luton, Geneva and Le Bourget). The Vnukovo-3 building is one of the busiest FBOs in Europe, catering upwards of 250 flights a day and with capacity for more than 200 aircraft.

Vnukovo has got competition from its Moscow peer airports, especially Sheremetyevo, which has handled 1,137 Business Aviation departures year to date. Its growth trend of 16% is certainly taking market share from Vnukovo, where high prices are becoming a major disincentive. Moscow is now also getting competition from St Petersburg, which established its first dedicated FBO in May 2013 and aims to add another by year end. Elsewhere in Russia, airport facilities for Business Aviation are markedly inferior.

Nice is Europe's 5th busiest airport, after Vnukovo, and this is in no small part due to the popularity of the Moscow-Nice connection. In May 2013 for example there were over 200 business jet connections between Moscow and Nice. This will surge as the summer gets underway but it already represents almost double the connections with also-popular destinations from Moscow such as Le Bourget and Luton. Overall, Western European metropolitan centers and coastal resorts still dominate the short list of preferred destinations from Russia.

This picture is changing as Business Aviation gradually establishes itself within Russia, encouraged by the need for connectivity to other regions of the world. The top 30 charter connections from Russia, for example, now include flights from Kazan and Kurumoch (Samara's international airport) to Sharm El-Sheikh and Hurghada. In the run up to its Winter Olympics, Sochi airport has triple digit activity growth. Out east, Yekaterinburg is one of several airports where increased Business Aviation activity reflects increasing Russian trade in Asia. Finally it may be the pull of emerging markets outside Europe which puts the Russian Business Aviation market onto a firmer footing.

TRAFFIC The surge in Business Aviation activity benefits Russia's leading airports. Vnukovo is 4th amongst all European airports.

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By Jack Carroll

MEET THE TITANS OF FLIGHT TRAINING

A.L. Ueltschi started it all. A 25-year pilot for Pan American World Airways (Pan Am) as well as the personal pilot for the company's founder and President, the legendary Juan Trippe, he realized early on that there was a growing–and urgent—need for pilots of business aircraft to have access to the same type and quality of training as airline pilots. Especially since most of the pioneer companies in Business Aviation tended to operate converted ex-military aircraft, such as the B-25 "Mitchell" and Lockheed Hudson bombers. These, for the most part, were faster, more complex and harder to fly than their civil counterparts. Ueltschi had a vision and acted on it, founding FlightSafety in 1951, at New York's LaGuardia Airport.

BOND
Customer relationships are at the center of everything at FlightSafety.

Today, after more than 60 years of innovation and growth, FlightSafety International is a formidable global force in Business Aviation, still following the company's credo and long-time slogan, that "The best safety device in any aircraft is a well-trained crew." Who could possibly disagree with that?

And none would disagree that FlightSafety is, by any standard of measurement, a true "class act" with a sterling reputation for above-and-beyond customer service, integrity and the highest standards of quality. We asked FlightSafety's Vice President, Communications, Steve Phillips, to elaborate on the company's strengths in the global marketplace. He's quick off the mark, stressing customers first. "We have always operated on the premise that customer relationships are at the center of everything we do. Sure, just about every company talks up company service, but we have been delivering it since 1951 and our continually growing customer base and sheer volume of referrals from satisfied customers is proof positive."

As FlightSafety pioneered the notion of dedicated Business Aviation training, they had quite a head start in signing up manufacturers as sort of "partners," often setting up on-site learning centers near–or even in–a manufacturer's facility. In fact, its first such arrangement was with PanAm Business Jets for training Falcon 20 pilots. (PanAm was the U.S. distributor for the Falcon 20 at the time.) Explains Phillips, "We are fortunate enough to have factory-authorized training provider agreements with the vast majority of aircraft manufacturers, both on the business and commercial sides. This gives us the important advantage of getting timely information, technical data and support directly from the OEMs." Which includes Dassault Falcon Jet and its current flock of business jets.

EXTENSIVE FlightSafety fields a team of some 1,600 instructors across its global network. Farnborough training center (center).

Training First

He stresses that FlightSafety is a training company first; a simulator provider second. "Our core business will always be flight training. Yes, we do build and sell simulators and visual systems, but that's mainly to meet the growing needs of our learning centers worldwide, with a portion of sales going to commercial airlines and the military. Speaking of learning centers, it's amazing when you sit down and calculate how many training hours FlightSafety provides in a given year.

According to my numbers, the conservative total across our worldwide training network is well over a million hours annually. The majority is pilot training, as you'd expect, but we also offer in-depth training programs for maintenance technicians–a key growth area for us, schedulers, dispatchers and flight attendants. In fact, we offer more than 3,000 courses covering the disciplines I've mentioned." Thus it's safe to assume that if anyone else involved with aviation needs training, we're sure FlightSafety will be able to handle it; with the exception of passengers, of course.

Describing the 2013 version of FlightSafety, Phillips ticks off some very impressive numbers: "There are more than 40 FlightSafety learning centers worldwide, with more on the way. These are all-company owned, equipped with our devices and staffed by our personnel. I believe this independence and total control are big factors in maintaining our consistently high quality levels in all aspects of training." For the record, FlightSafety training centers are located in the United States, Australia, Brazil, Canada, China, France, Japan, South Africa, the Netherlands and the United Kingdom.

"Our courses cover more than 135 different aircraft models and our growing fleet of simulators now numbers 330; more than any other training organization. I should mention that 85 or so are used for regional airliner training. At last count, we now have customers based in more than 150 countries. And though we're looked upon primarily as a U.S. company, we are truly an international organization."

Qualified Trainers

Among all the statistics, one that stands out in our estimation is the fact that FlightSafety fields a team of some 1,600 instructors across the training network. As one would expect, only the highest qualified, most experienced need apply. Who, incidentally, must also be skilled communicators; as Phillips emphasizes, "It's our feeling that while advanced simulators and technology are obviously important, qualified flight instructors are essential to ensuring flight safety under all conditions. Our customers deserve nothing less."

Back to simulators: While the point has been made that FlightSafety's primary focus is training, the company just happens to be the largest flight simulator manufacturer in the United States, according to Phillips. "We started building our own simulators in 1978 and since then have produced about 800 full-size simulators and over 1,000 visual systems." That's a far cry from 1951 when Al Ueltschi rented a single World War II era "Link Trainer to launch the concept of specialized training for business aircraft pilots; equal or better than that provided by the commercial airlines. Says Phillips, "In 2011 we significantly expanded capacity to meet the growing worldwide demand for full-service simulators by opening a 375,000 sq. ft. simulator-dedicated design and manufac-

turing facility in Tulsa, Oklahoma, where we can build up to 19 simulators at a time. There's really nothing in the industry like it. The increased capacity allows us to respond to increased demand not only from our own learning centers but also to commercial, government and military RFPs."

It should be evident that while simulator training tends to be expensive, as is everything to do with aviation, it's well worth it when one regards the advantages. Their main training advantage is that a pilot can practice and replicate complicated maneuvers and flight situations that no one would want to attempt in a real airplane. The simulator removes all the risks of reality. It also tends to amortize the training cost, since an owner has no need to take an aircraft out of service for training duties. Come to think of it, why would anyone even think about that? In short, simulators save time, money and most important, lives. When back in the real world a pilot runs into an unplanned or undirected situation, chances are excellent that he's already confronted the problem and was trained to handle it during simulator training. Been there, done that.

Phillips notes that FlightSafety has a long list of innovations, for example, "We developed the first electric motion control system for simulators, which was a genuine breakthrough in the field. Previous to that, simulator motions were controlled by a system of hydraulic pumps which were workable, but by no means an ideal solution. Electric motion control was mechanically much simpler and, more important, provided enhanced performance and greatly improved motion capability.

Another teaching advance is FlightSafety's Matrix(tm) learning system. It consists of a range of devices for the classroom and for self-paced learning. Desktop simulators are used in classroom training to demonstrate and learn the function and control of aircraft systems. Graphical flight-deck simulators are used for instructor-led or self-paced learning. These provide interactive representations of the flight deck of a given aircraft and enable the user to monitor or perform virtually all

SIM
Gulfstream G650 simulator installed at the FlightSafety Long Beach learning center. The company is the largest flight simulator manufacturer in the United States.

the functions that would be performed in the actual aircraft. FlightSafety's SimVu(tm) simulator session debriefing system gives the student detailed visual representations of the just-concluded training sessions.

As Phillips explains, "Prior to a full-motion simulator session, a student can use the devices to become familiar with all aspects of the cockpit systems. Following the simulator session, he or she can go back and review everything that took place via the SimVu system, which basically allows you to take a look at how well you did. Or how poorly, as the case may be. All three devices work together for the student: Simulator, Matrix and SimVu system."

FlightSafety's simulators are equipped with the company's newly enhanced VITAL X(tm) visual system that significantly enhances the training experience. It displays highly realistic scenes optimized for a wide variety of mission-specific training scenarios. It also offers expanded scene content, improved weather features, and enhanced detail levels for optimum cueing coupled with continuous anytime-of-day operations during all phases of flight.

Visual Systems

Highlighting another innovation, FlightSafety has also developed new glass mirror displays for use with its VITAL X visual systems. First used on the company's helicopter simulators, it provides 220 x 60 degree field of view, enhanced optical performance, brightness, image clarity and, as if that were not enough, the system is night vision capable. The glass mirror also reduces distortion in the critical boundary areas, particularly important for near-ground operations, where helicopters tend to hang out, and provides virtually the same view out of the simulator as from a real aircraft, showing dust, branches and sundry objects kicked up by the rotor blades. Or even a full-bore sandstorm if need be. Just like real-world conditions.

Getting back to FlightSafety's obsession with customer service, Phillips brought up an example of special interest to pilots. "We've developed a new and, I think, unique program for our loyal customers, called Customer Care. It features a number of benefits, but a key one that gets the attention of pilots is Proficiency Protection. As we all know, not that many years ago when Business Aviation was in pretty rough shape, some flight departments were closing and a good number of pilots were losing their jobs. Of course, to get another job you have to be current. So we decided to remedy the situation by offering recurrent training for these job hunters at no cost. It was extremely well received, as one would expect. To us, it was simply another way of showing our gratitude to good customers, when times are good and when they're not so good. As I noted earlier, when we say 'Customer Service,' we really mean it." The pilots they helped would know that, for sure.

In terms of helicopters, the company certainly has the motive–the helicopter market has never shown so much potential, according to Phillips, and by all means it has the means–the capital–for additional expansion, thanks to the financial options affording by Warren Buffett's Berkshire Hathaway Company, which acquired FlightSafety International in 1996. As Phillips observes, "The acquisition was a key step in our company's continued growth, providing support as well as virtually unlimited access to capital." Which might well translate to: FlightSafety International looks to be well on track to taking the lion's share of the helicopter training market. What's next? Stay tuned.

CAE

Founded in Canada in 1947, and formerly named Canadian Aviation Electronics, CAE developed an early expertise in aircraft simulators, following its first simulator contract in 1952 to develop a flight simulator for the Royal Canadian Air Force's all-weather interceptor, the Avro Canada CF-100 "Canuck." The company really hit the jackpot in the early 1960s when it was awarded a contract by the Canadian government for six F-104 "Starfire" simulators. The stubby-winged rocketship had a miserable safety record and many fatalities making simulator training more important than ever to help pilots better control the beast and learn how to deal with its prevalent "unplanned events." The F-104 program was the company's first experience with radar land mass simulation, combined with motion and visual systems as well as a compact mission recorder. It must have performed to expectations and surely saved more than a few lives, because within five years the company sold 26 more simulators to five other NATO countries. It was a most auspicious debut into the big-time.

In quick order CAE entered the commercial aircraft market sector which led to a number of technological breakthroughs in control loading, motion systems, instructor consoles and software diagnosis. The word spread around the global airline community and by the 80s CAE was internationally exporting some 85 percent of its production and had become the leader in the manufacture of full flight simulators for commercial aircraft, flight training devices, visual systems, computer-based trainers and computer assisted training systems.

Diversification

After decades as the world leader in the design and manufacture of simulator equipment, CAE decided to diversify its revenue sources by entering the training services market. In 2000, the company announced plans to build a global training network; a move that would ultimately provide CAE with the ability to offer customers the most comprehensive package of products and services on the market. CAE soon opened commercial aviation training centers and in short order decided to enter the business training market as well.

Meanwhile, a younger simulator training company, SimuFlite, was stuck in second place, behind FlightSafety, - it took capital to compete and in 2001 CAE came to the rescue, acquiring SimuFlite; a clear signal that it was going after a larger share of the Business Aviation market in a big way–meaning FlightSafety, of course. The race was on to claim the top spot in the business aircaft/helicopter sector, and for that matter it still is.

CAE was now totally committed to Business Aviation and helicopter training and backed that with substantial investments in simulators and new technology. The company now has training partnerships with a number of major aircraft manufacturers. For instance, CAE is Bombardier's Authorized Training Provider for many aircraft platforms, it has a joint venture training arrangement with Embraer for its Phenom business aircraft, and is an Authorized Training Provider for Dassault Falcon Jet.

Expansion

As Rob Lewis, CAE's Vice President, Business Aviation & Helicopter Training, details, "We've expanded our simulator base significantly and now have 74 devices, totally dedicated to Business Aviation–including helicopters– spread around 14 different locations worldwide, creating a network with the broadest global reach. I'm talking here about complete training centers, each large enough to hold several simulators, all of which are approved Level-D, full-motion models. On the other side of our business, an additional 'fleet' of high-end simulators serves the commercial airline market globally. In total, we offer the full range of flight training in more than 45 locations, on every continent, with the exception of Antarctica."

Says Lewis, "We are now the largest designer and manufacturer of civil full-flight simulators in the world, included commercial airlines, business aircraft and helicopters. At last count, we have more than 1,000 simulators and other

START OFF
CAE Oxford Aviation Academy is the world's largest network of ab initio flight academies.

flight training devices in service with over 130 airlines, aircraft manufacturers and training centers. In fact, CAE has simulated nearly every modern airliner, regional jet and a wide variety of business jet and helicopter models." As the latest CAE promotional brochure notes, the company is first in full-flight simulator sales, first in commercial aviation training, first in civil helicopter training and second in Business Aviation training. On a higher note, the CAE Oxford Aviation Academy is the world's largest network of ab initio flight academies. Much needed and likely to grow even larger when one regards the on-going, ominous predictions of severe pilot shortages.

So, we asked Rob Lewis, what are CAE's strong points in the battle for Business Aviation supremacy? What sets it apart from the competition?

Flexibility

He's been waiting for that question and is ready with a quick answer: "Our strong points start with the high quality of the training devices we manufacture; their unmatched fidelity and responsiveness to just about any situation. The fact that so many airlines and the military use them is testimony to that."

FLEXIBILITY
CAE focuses on flexibility and customized solutions adapted to clients' specific requirements.

As he explains, "I think our biggest strength and point of difference when competing for a contract is that we are totally flexible in designing our training programs according to an operator's usage patterns and unique requirements. With CAE, they are not locked-in or program-restricted. For example, a prospect might tell us he wants more concentration on bad weather flying and night approaches into, say, Aspen." Considering that particular airport, its altitude and treacherous surroundings, who could blame him?

As Lewis continues: "Or they may want to add topics and delete others from a "stock" program. No problem. After all, we've been doing it a long time. We simply make adjustments to provide a customized service rather than a fixed menu. In fact, since the very beginning, that is the core of what CAE training is all about. We do have standard FAA-approved programs, of course, but we've actually built our business model around having the flexibility to meet all a given customer's special needs as far as possible. Actually, most of the time those needs are not that special or not all that unique; we've seen most of them before and our people know how to handle them quickly and easily. I think the whole point is that we're able to customize and implement program changes at any or all of our training centers. With us, this old familiar saying happens to make great sense: 'The customer is always right.' At least most of the time. When he isn't, we let him know and advise and guide him to an alternate solution. I think that our focus on program customization is a main reason we win most of the business that we do."

Another key factor Lewis notes is scheduling flexibility. "Instead of saying something like, 'We have one course a month covering initial training on the G450, which starts on the first Monday of each month.' Right away the customer feels trapped by the rigid attitude. We'd say, 'If our schedule doesn't fit yours, we'll prepare a customized schedule for you that will.' That sounds better, right? We get our instructors together, work out the timing and special programs as needed and, of course, arrange to conduct training at any center in our network, that's most convenient for your pilots. Actually, as I said earlier, we basically built our whole business around the concept of flexibility and that philosophy has served us very well thus far. It's an intangible point of difference, to be sure, but one that's unanimously appreciated by our customers. Who, after all, come first."

CAE's revenues are just about equally divided between civil and military, while there is also an equal split between simulation products and training services. The most recent data shows one third of revenues coming from the U.S., one third from Europe and the remainder from the rest of the world.

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A TOUGH COMPARISON

By Marc Grangier

UPGRADE Nextant Aerospace unveiled its latest model, the 400XTi at EBACE.

Improving existing business aircraft has always been a legitimate achievement for the industry, and a high proportion of OEM budgets is devoted to R&D. Upgrading older aircraft has also been a viable option for many companies, either with new engines and/or new avionics. Over the last several decades, the industry has accustomed us to the presentation of re-engine programs and upgraded avionics, such as with the former Hawker 125 series or the Dassault Falcon 20. To increase performance and extend range, companies like Blackhawk Modifications, Raisbeck Engineering, DeCrane Aircraft, Quiet Technology, Shadin, Honeywell and Universal, to name just a few, have all engineered aerodynamic engine/wing/fuselage improvements and avionic retrofits for a variety of turboprops and jets.

That being said, the Nextant Aerospace process, which is dedicated to remanufacturing aging business jets in order to improve performance, is a more comprehensive and original concept that goes being mere modifications and instead produces like-new lost cost models. This began six years ago when Nextant realized that improvements could be made to the Hawker 400A/XP – one of the most popular light jet aircraft.

Featuring one of the first supercritical airfoils on a corporate aircraft, the Hawker 400 was originally introduced in 1978 as the Mitsubishi MU-300 Diamond. In 1986, Beechcraft purchased the production rights from Mitsubishi and began manufacturing an improved version branded as the Beechjet 400. Since then, over 800 units have been produced.

The drawback of the model (and of most of its competitors) is its range, which reaches only 1,330 nm with four passengers and IFR reserves. This is largely due to the old Pratt and Whitney JT15D-5 engine and certain aerodynamic inefficiencies within the aircraft nacelle design. The JT15D engine was one of the earliest high bypass turbo fan engines, meaning it is relatively heavy, has high fuel consumption and is costly to maintain. In addition, the JT15D-5 engine overhaul cost has increased significantly, with overhauls now costing as much as US$425,000. The engines are overhauled at 3,600 hours and, with the average aircraft operating 450 hours per year, Nextant estimates the opportune time for modification of the aircraft was around the eight year mark. Initially, the main modification was the replacement of the engines with the more modern and fuel-efficient Williams FJ44-3AP.

On the business side, things were changing, most notably Beechcraft suspending its Hawker 400-series production in 2011 in order to better align with demand. However, less than a year later it did 360 degree reversal, realizing the importance of this market and re-entering it in 2012 with its own Hawker 400XP/Beechjet 400A factory-direct upgrade program.

The result of all this is that today we have direct competition between two very similar models that are based on the same airframe but upgraded according to different procedures. Both the Hawker 400XPR and Nextant 400XT are based on replacing the aircraft's original Pratt & Whitney JT15D-5Rs with Williams International

FJ44s. However, where the Nextant 400XT is designed around the FJ44-3AP, the Hawker 400XPR utilizes the more powerful FJ44-4A-32 engine. While the FJ44-3AP is about 100 lb. lighter, the FJ44-4A-32 produces more thrust. After evaluating both engines, Beechcraft chose the FJ44-4A-32 for the 400XPR in order to satisfy customer demand for greater hot/high performance.

Concerning aerodynamics improvements, Beechcraft and Nextant also went down different paths. While Nextant alters the aircraft's engine pylon and nacelle structure, Beechcraft is minimizing the aircraft's lift induced drag by incorporating its own, specially designed winglets.

Nextant 400XT/XTi

Kenn Ricci and Directional Aviation Capital founded Nextant Aerospace in 2007 for the primary purpose of developing an aircraft modernization program based on the Hawker 400A. "We are in the market of buying aircraft which we upgrade and sell as new," says Sean McGeough, President of Nextant Aerospace. "Most aircraft already have 4,000 to 7,000 hours in service when they arrive at Nextant."

Concerning sales, Jay Heublein, Nextant Aerospace, Executive Vice President, Global Sales and Marketing told BART that since late 2011 (after the FAA certification of the aircraft), the company has delivered 28 aircraft in six countries. With its sales backlog is now valued in excess of US$175 million, it has expanded its capacity with a new 125,000-square foot remanufacturing facility in Cleveland, Ohio.

Nextant insists upon the fact that its 400XT is a completely rebuilt Beechjet 400A/XP with Williams FJ44-3AP engines and the Rockwell Collins Pro Line 21 integrated avionics suite. The resulting aircraft benefits from aerodynamic enhancements and an improved engine-mounting configuration with redesigned nacelles and pylons. Offering a 30 percent reduction in operating costs over the Beechjet 400A/XP and fuel efficiency improvements of 20-30 percent, depending on the length of the flight segment, it has a maximum range of 2,003 nm/3,709 km. Delivered as a new, zero-hour aircraft with a two-year full-aircraft warranty, its after-sales support is provided by a global network of owned and authorized service centers.

At last EBACE, Nextant Aerospace unveiled its latest model, the 400XTi, which will continue to retail at $4.95 million. Also while in Geneva, Nextant signed a contract with Jet Aviation Geneva to provide maintenance services, an announcement that followed an earlier agreement to add Jet Aviation Singapore to Nextant's global network of owned and authorized service centers. "Nextant Aerospace offers a unique product and we are extremely glad to be selected as an authorized service center in Europe," said Cyril Martinière, Managing Director, Jet Aviation Geneva.

Potential Market

Heublein is adamant that Nextant's aircraft is ideally suited for Europe. He estimates that there are some 1,500 entry-level jets currently operating on the Old Continent, worth approximately US$5 billion. The company's research indicates the market is experiencing long-term growth, with many owners planning to replace existing equipment with models offering improved fuel efficiency and value for money. In fact, Nextant analysis reveals that between 2007 and 2011, 410 entry-level aircraft were delivered to Europe, an increase of 14 percent over the 2002-2006 time period. Meanwhile, some 300 aircraft – around 20 percent of the European entry-level jet fleet – is currently up for sale for a total value of just under US$1 billion.

Needless to say, these figures make Heublein optimistic about the future. "Despite current economic challenges, the long-term business jet market continues to grow, but there's a sharpening focus on value for money," he says.

STATEMENT
We are in the market to upgrade aircraft and sell them as new says Sean McGeough, President Nextant Aerospace (second from the right). 400XTi flight deck with digital instruments, LCD and LED warning display.

IMPROVED The 400XPR combines the aerodynamics of specially designed winglets and the propulsion of the Williams FJ44-4A-32 engines.

Beechcraft Hawker 400XPR

Not one to stand on the sidelines and watch, two years ago Beechcraft stepped to the plate to challenge Nextant Aerospace's market dominance with the launch of its Hawker 400XP/Beechjet 400A factory-direct upgrade program. According to Brian Howell, Hawker Beechcraft vice president, Aftermarket Sales and Business, this new aircraft combines the aerodynamics of specially designed winglets and the propulsion of the Williams FJ44-4A-32 engine, along with optional Rockwell Collins Pro Line 21 avionics and a number of system enhancements, to significantly improve Hawker 400XP/Beechjet 400A aircraft performance and operating costs.

"If a potential customer is looking to purchase a light jet, our company is the most appropriate to refer to as we know the 400-series that we designed, engineered and built," says Howell, adding that "only aircraft that meet Beechcraft factory standards are upgraded."

OPTION The 400XPR upgrade features an optional modernized flight deck with Rockwell Collins Pro Line 21 avionics. (Right Page)

The Rockwell Collins Pro Line 21 avionics system upgrade is certified and the first customer aircraft has been delivered from Hawker Beechcraft Services in Atlanta. The Williams International FJ44-4A-32 engine certification and Hawker winglet certification are on track for completion in the third quarter of this year, with Hawker 400XPR deliveries beginning in the fourth quarter. "We've been beating performance estimates in flight testing," notes Howell. "The popularity of this upgrade is evident – all 2013 slots for the 400XPR upgrade are sold out."

According to Howell, the 400XPR factory-completed aircraft is superior in performance and efficiency when compared to both new aircraft offerings from other OEMs, as well as individual alterations from companies like Nextant. The Williams International FJ44-4A-32 engines are optimized exclusively for the Hawker 400XPR, and are capable of producing 3,600 pounds of thrust, flat rated at 3,200 pounds to create robust temperature margin and performance. With a total thrust of 6,400 pounds, the FJ44-4A generates eight percent, or 470 pounds, more thrust than the Pratt & Whitney JT15D-5R it replaces. This significant improvement in flat-rated thrust results in exceptional hot/high, climb and cruise performance.

Advanced materials are used throughout, including a composite inlet case to reduce engine weight. A dual channel, Full Authority Digital Engine Control (FADEC) system provides optimal power setting and reduces pilot workload while providing trend monitoring, time-limited dispatch, diagnostics and engine synchronization. "The FJ44-4A engines enable the Hawker 400XPR to climb directly to FL450 in only 19 minutes at max takeoff weight, whereas the Nextant modification, which uses the smaller -3A engine, requires some 70 minutes at lower altitudes before it can step climb to realize these greater efficiencies without sacrificing speed," says Howell. "The effort we've put into developing the Hawker winglets and pairing them with the right engine has helped set this upgrade apart from competitive options."

Howell notes that customers choosing the Hawker XPR upgrade are doing so foremost for the performance, efficiency and value enhancements, but are also looking forward to the distinctive ramp presence the winglets provide. "And on top of all this," he concludes, "they are choosing the XPR knowing the upgrade is supported by our worldwide network of factory and authorized service centers."

And the Winner is …

We are certainly not going to tell crown a winner in this competition as, in our opinion, both aircraft have their own advantages in both price and performance. As mentioned above, the Nextant 400XTi is sold at US$4.95 million (the airframe is included in the price), while the Beechcraft upgrade program into a 400XPR for the owner of a Hawker 400XP amounts to approximately US$2.7 million, depending upon the options required by the customer.

Considering the prices of "retrofittable" second-hand 400-series, this means there is little difference between the two offers, unless one can find a bargain on the second-hand market from, for example, a company hit by the recession and thus obliged to sell their aircraft. At the time of writing, a 1999 Hawker 400A with 6,203 hours TT was selling for US$1.3 million. At the same time, J. Messinger Corporate Sales offered a 1996 400A with a TT of 3,961 hours at US$1.4 million, and other brokers were selling several aircraft from anywhere between US$1.5 million and US$1.9 million.

In other words, a future operator will have a choice to make. It will certainly be easier for owners of existing 400A to revert to Beechcraft, as the technical advancements initially taken by Nextant over Beechcraft when it developed the first version of its 400 series re-engined with Williams engines, has now been caught up by the Wichita manufacturer. On the other hand, if a company has no retrofittable aircraft and does not want to bother looking for an old Hawker 400A and handing it to Beechcraft for modification, the Nextant 400XTi on-the-shelf solution is certainly a good one.

Of course, the choice by Beechcraft of the Williams FJ44-4A instead of the -3A selected by Nextant contributes to better performance. However, Nextant 400XTi's smaller engine size and weight enables to it to carry about 200 lb. more weight over shorter ranges at sea level ISA conditions, although this "light weight "ability is lost at higher departure temperatures and altitudes.

In terms of maximum range performance, the Nextant 400XT boasts a slight advantage, but it has a slower average speed and a higher fuel consumption. With four passengers, its maximum range (departure at sea level, ISA conditions, NBAA IFR reserves, LRC) reaches 1,970 nm against 1,950 nm for the 400XPR. However trip fuel consumption goes in the favor of the Beech aircraft: 3,861 lb against 4,152 lb. And in this case, the average speed of the Nextant aircraft is 402 kts against 415 kts for the Beech aircraft.

As one can see from these figures, it is obvious that both aircraft have their pros and cons. As far as we are concerned, we must admit that such a competition has a positive aspect for customers who are offered a sound alternative. In other words, customers can choose the aircraft that best suits their needs in terms of performance, sales price and operating costs.

Specifications Comparison

	Beechjet 400A Hawker 400XP	Nextant 400XTi	Hawker 400XPR
Engines			
Manufacturer	2 P&WC	2 Williams	2 Williams
Model	JT15D-5R	FJ44-3AP	FJ44-4A-32
Output (per engine)	2,965 lb.	3,050 lb.	3,200 lb.
Flat Rating	ISA+12°C	ISA+7°C	ISA+17°C
Output (both engines)	5,930 lb.	6,100 lb.	6,400 lb.
Inspection Interval	3,600 t	4,000 c	5,000 c
Takeoff Field Performance (optimum flap setting)			
Sea Level, ISA	3,906 ft.	3,821 ft. [1]	3,840 ft.
5,000 ft. above Sea Level, 25°C	6,311 ft.	6,115 ft [1]	5,170 ft.
Landing Distance			
@ Max gross landing weights (ft.)	3,514 ft.	3,514 ft.	3,400 ft.
Vref (knots)	118 kt	118 kt	118 kt
Climb Performance (Max Takeoff Weight)			
Time to Climb / Altitude FL370	19 min	16 min	11 min
Ceilings			
Certified (ft.)	45,000 ft.	45,000 ft.	45,000 ft.
All Engine Service (ft.)	43,450 ft.	43,100 ft.	45,000 ft.
Engine-out Service (ft.)	20,600 ft.	26,650 ft.	31,000 ft.
Cruise Performance			
Limits			
M_{MO}	0,78 Mach	0,78 Mach	0,78 Mach
Trans. Alt. FL/ V_{MO} FL 263	320	320	320
High Speed Cruise			
Speed	447 kt / 514 mph	447 kt / 514 mph	447 kt / 514 mph
Fuel Flow	1,255 lb./hr.	968 lb./hr.	913 lb./hr.
Altitude	FL 390	FL 430	FL 450
Long Range Cruise			
Speed	414 kt / 476 mph	422 kt / 406 mph [2]	425 kt / 489 mph
Fuel Flow	938 lb./hr.	760 lb./hr.	761 lb./hr.
Altitude	FL 430	FL 430	FL 450

[1] Nextant 400XT BFL data from Business & Commercial Aviation magazine, January 2012

[2] Nextant 400XT cannot reach FL 450 at test weight due to climb performance limitations

Note: Data for the Nextant 400XT has been estimated using available engineering data for the FJ44-3AP engines.

A SYMBOL OF GROWTH

By Paul Walsh

LABACE organizers often boast about their impressive visitor figures being a symbol of the ongoing growth happening in the Latin American Business Aviation market. The nearly 14,000 visitors streaming through the doors of the 2013 edition, definitely serves as evidence in support of this assertion!

Although many of these visitors came with business in mind, some were there to soak up the aviation-fuelled atmosphere, which is hardly a surprise in a country as proud of its aircraft heritage as Brazil.

"We have the world's second largest fleet, a host of aeronautical universities, and one of the world's top manufacturers," says Eduardo Marson, chairman of Brazil's general aviation association AGAG. "In short, the country has a special relationship with aviation. " Marson adds that the enthusiasm sometimes extends to politicians who are generally supportive of Brazilian Business Aviation growth, even if they misunderstand the segment: "Brazil is a huge country with 6000 municipalities, less than 200 of which are served by regular flights, so we need Business Aviation as a matter of integration. Brazilian companies are becoming more international and some are buying smaller firms in Europe and the US, and more and more they're using Business Aviation to travel abroad. And in case anyone gets the wrong impression, Business Aviation in Brazil is a productivity tool, not a luxury."

MOTIVATION
Many visitors came with business in mind, some others to soak up the aviation fuelled atmosphere.

But before we fall into the trap of thinking that everything is rosy in Latin America, Marson is quick to mention the region's flagging infrastructure."It's definitely a bottle neck," he confirmed. "We need more Business Aviation terminals at airports and we need clearer rules on access to airports." He specifically notes that authorities fail to recognize the many significant differences between Business Aviation and commercial aviation. "Indeed, this is ABAG's job, to explain the particularities of Business Aviation to the authorities, but it's a slow and often painful process," he says.

Marson added that authorities find it hard to process registrations and pilot licenses because of the sheer volumes involved. "The point is that general aviation has grown continuously since 2001; now it's growing at about 6.7% and the previous year was 6.1% and the regulators are struggling to keep up."

OEMs

In spite of infrastructure shortages, OEMs were out in full-force at LABACE, taking advantage of the region's ongoing buying activity.

Cessna was exhibiting with *TAM Aviação Executiva* and presented a mock-up of the Citation Latitude's interior. "We have several exciting new products out this year, including the revolutionary new Citation Sovereign, high-performance Cessna TTx and powerful Grand Caravan EX, all of which we expect to be extremely popular with our Latin American customers," notes Kriya Shortt, Cessna senior vice president of sales. "Brazil, in particular, is an important country for us – nearly half of all light and mid-size jets currently operating in the country are Citations, and in the past five years Cessna has continued to be the most favored business jet import for Brazilians," continues Shortt. "We look forward to delivering many of our new products to customers here."

Cessna currently manufactures eight Citation business jet models, with two additional products in development – the Citation Latitude, due in 2015, and the Citation Longitude, due in 2017. The Citation M2 can fly six passengers non-stop from São Paulo to Buenos Aires, while the Citation X can connect up to eight passengers from Rio de

Janeiro, Brazil to any point on the South American continent, travelling at speeds of up to Mach 0.935 (1,224 km per hour). When launched, the super-mid size Citation Longitude is expected to have the non-stop range to connect Brasília, Brazil to Washington, D.C., or Cape Town, South Africa.

Meanwhile, **Dassault** noted that Brazil continues to be a strong market, and the French manufacturer expects to deliver another five Falcons in 2013. Boasting a 60% market share of Brazil's large cabin business jet market, Dassault continues to be an industry leader in Brazil."Over the past couple of years Brazil has been at the center of the world stage, positioning itself as a dynamic country with a very healthy and diversified economy," says John Rosanvallon, President and CEO of Dassault Falcon Jet. "Our commitment to Brazil has steadily progressed since we sold our first new airplane there over 30 years ago."

On the customer service side, Dassault noted that their Sorocaba Service Center is authorized to perform line maintenance and airframe inspections on all Falcon models except the Falcon 20 and Falcon 100. In addition, the facility is qualified to provide engine maintenance on the CFE-738 and Honeywell TFE731 series, as well as Pratt & Whitney Canada PW307A and PW308C models. Specialized non-destructive testing (NDT) services, such as Penetrant and Eddy Current testing, can also be performed. A full service battery shop is available to repair, replace or charge main and emergency batteries on Falcon and other aircraft models. Sorocaba has an AOG 'GoTeam' that can provide rapid mobile response for a Falcon located anywhere in South America, along with the parts and tools necessary to get the aircraft flying again with minimal delay. Dassault Falcon Jet houses over $3 million (US) worth of high usage parts in Sao Paulo.

That being said, although Dasssault remains the established player in Brazil, **Gulfstream** is quickly catching up, thanks to growing demand for its large-cabin, long-range G650. We're pleased to showcase the G650 at LABACE for the first time," says Scott Neal, senior vice president, Sales and Marketing, Gulfstream (pictured). "Over the past several years, we've made a significant investment in the Latin American region, including establishing a dedicated service center in Sorocaba. We're committed to providing our operators with the best support and resources possible."

Most recently, the G650 received approval from the Federal Aviation Administration to take off and land at airports at altitudes up to 15,000 feet (4,572 m). The testing required for the certification was conducted last May in La Paz, Bolivia. Previously cleared for landing at airports at or below 10,000 feet (3,048 m), the aircraft is now certified to operate into the highest airports in the world, including El Alto International Airport in Bolivia (13,310 feet/4,057 m), Inca Manco Cápac International Airport in Peru (12,552 feet/3,826 m), Alejandro Velasco Astete International Airport in Peru (10,860 feet/3,310 m), and Nagqu Dagring Airport in Tibet, which will be the world's highest airport at 14,554 feet (4,436 m) when it is completed in 2014.

MARKET
Dassault remains the established player in Brazil (top). Quickly catching up, Gulfstream showcased its long-range G650 (center). Brazil is an important country for Cessna (Citation Sovereign top right).

Even with the spotlight clearly on the G650, it is worth mentioning the G280, which was also on display. From São Paulo, the G280 can reach all of South America without refueling and can easily reach the US and Europe with one stop. Since entering service in late 2012, the G280 has clocked up more than 30 city-pair speed records – the latest occurring en route to LABACE when it traveled the 2,900 nm (5,371 km) between San Juan, Puerto Rico and Foz do Iguaçu, Brazil at an average speed of Mach 0.81 for a flight time of 6 hours and 28 minutes.

DISPLAY Challenger 300 and 605 (center) among the models showcased by Bombardier. Beechcraft King Air 350 ER Special mission (top).

Earlier this summer, the US Federal Aviation Administration certified the Enhanced Vision System (EVS) II and Head-Up Display (HUD) II for the G280. The systems allow pilots to see terrain, runways, taxiways and possible obstructions in low-visibility conditions. With EVS II and HUD II, the G280 can land in weather conditions that would be prohibitive for unequipped aircraft.

Not to be outdone, **Bombardier** presented a Learjet 45 XR, a Challenger 300, a Challenger 605 and a Global 6000 aircraft on the static display. "We're delighted to once again attend LABACE in full force with an impressive product line-up," says Fabio Rebello, Regional Vice President, Sales, Latin America (pictured), Bombardier Business Aircraft. "This past year has been very exciting for us at Bombardier and we look forward to sharing news on our newly launched products, such as the Learjet 70, Learjet 75 and Challenger 350 jets with our current and prospective customers in the region."

Bombardier forecasts that the Latin American market will account for some 2,300 business aircraft deliveries over the period of 2013-2032, which is broken down into 1,000 deliveries between 2013 and 2022, and 1,300 deliveries between 2023 and 2032. It is forecasted that the fleet of 1,675 business jets at the end of 2012 will increase to 3,085 aircraft by the end of 2032, equivalent to a compound annual growth rate (CAGR) of three percent. On the customer service side, Bombardier boasts a Regional Support Office (RSO) in São Paulo, which is staffed by an RSO Manager who oversees two Field Service Representatives. The RSO is complemented by two Customer Support Account Managers (CSAM), a parts depot and Authorized Service Facilities (ASF) for the region.

Demonstrating the potential for all market segments in Brazil, **Beechcraft** featured four products from its line of commercial piston and turboprop aircraft, along with a special mission King Air 350ER. Beechcraft King Airs represent 56 percent of the Latin American business turboprop market, which has increased to nearly 1,800 aircraft according to recent JetNet data. Deliveries of King Airs throughout Latin America have increased 37 percent during the past five years compared to 2003-2007. "We've now topped 1,000 King Airs registered across Latin America, with the largest concentrations in Brazil, Venezuela and Mexico," says Keith Nadolski, president, Beechcraft Americas. "With 420 King Airs in Brazil, we have more than 70 percent of the business turboprop market share in what continues to be one of our largest growth areas outside the United States. LABACE gives us a great opportunity to visit with our growing Latin American customer base while offering a stage to showcase the durability, reliability and efficiency of our products to new customers."

In encouraging news, Beechcraft recently announced that its second quarter 2013 worldwide deliveries were up 75 percent compared to the second quarter of 2012. The company delivered 56 Beechcraft commercial and military units versus 32 in the sec-

ond quarter of 2012. For the first half of 2013, the company delivered 115 Beechcraft airplanes as compared to 69 in the first half of 2012, an increase of 66 percent.

Also in the turboprop space, **Pilatus** had a PC-12 on display, although the aircraft on everyone's lips was the PC-24, which will have significant potential in the Latin American market. In addition, Pilatus is also expanding its customer support in the region and just before the show appointed Aeroservicio S.A. in Santiago, Chile to its roster of service facilities. "The exceptional commitment to high quality service displayed by Aeroservicio makes it a welcome addition to Pilatus' group of service centers," explains Pete Wolak, Vice President of Customer Service for Pilatus Business Aircraft. "Nearly 50 years of dedicated service in the region illustrates the success of Aeroservicio's customer-focused business model and excites us for an interconnected future."

In its 47-year history, Aeroservicio S.A. has established itself as a highly qualified leader in the Chilean Business Aviation industry, committed to completing maintenance in a manner held to the highest standards. The company's Pilatus service facility is located at Aeródromo Eulogio Sánchez (Tobalaba / SCTB).

Nextant was also present and, according to Jay Heublein, Executive Vice President, Global Sales and Marketing (pictured), the company is devoting significant resources towards the Latin American market. He adds that there are 1,685 entry level jets in Latin America, valued at around $4.86 billion. "Our research reveals that the market is enjoying long-term growth, but at the same time many owners are looking to sell their existing aircraft and buy new ones that are more fuel efficient and offer better value for money," he says. "We expect our unique value proposition to be very popular in this value driven environment." Heublein also notes there is a real need for quick and efficient links between Latin American cities that airlines and other modes of transportation cannot adequately serve: "This demand is accelerated by strong growth in corporate and private wealth as well as strong regional trade links. Latin America has always utilized business aircraft for efficient business travel and we see this trend continuing."

As to whether the 400XTi is a good fit for the Latin American market, Heublein points out that it has the range to go from Mexico City to Montreal or from Buenos Aires to Lima, with the additional benefits of excellent reliability and rapid access to parts through the company's global partnership with API. Additionally, superior hot and high performance means the aircraft is dispatch ready even in the summer heat."

Finally, home favorite **Embraer** revealed new features for the Phenom 100 at the show, including multi-function spoilers, 11 new interior collections and such new options as a refreshment center, stowage space and premium seats. "The new block-point changes are exciting and

DEMAND
Pilatus was drumming up demand for the PC-12 (top), while Embraer revealed new features for the Phenom 100 (bottom left).

reflect how we listen and respond to customers," says Ernest Edwards, President, Embraer Executive Jets (pictured). "The Phenom 100 is already the fastest and roomiest in the entry-level class, and these changes make it more efficient and luxurious to meet the increasingly discerning needs of owner-operators, corporate flight departments and leading fractional providers who have received this aircraft so well."

The multi-function spoiler offers two new functionalities, acting as a ground spoiler and speed brake. It not only increases drag and lift dump, but can be used for speed reduction and sink-rate increase on the approach phase. The 11 new interior collections refresh both cabin looks and comfort and feature such new color choices and materials as wood veneer. The optional premium seat features additional capabilities, such as swivel, lateral and forward movement.

Established MRO Players On the maintenance support side, **JSSI** launched its Embraer Phenom 100 and 300 Airframe Programs, which enhance the existing manufacturer warranties and provide comprehensive coverage for airframe maintenance costs. Covering virtually every part, component, assembly and system of the airframe, including all parts and labor for scheduled and unscheduled maintenance, the Phenom Airframe Program provides owners and operators with a predictable maintenance budget and peace of mind. The cost-per-flight-hour service is backed by 24/7 access to the largest independent, highly experienced technical and client services teams, located around the world.

"We have been providing engine coverage for a significant number of Phenom owners and operators over the last several years and it is with great pleasure that we now offer Phenom owners Airframe coverage as JSSI is synonymous with Tip-To-Tail coverage," says Kevin Thomas, Vice President, Strategic Planning & Business Development for JSSI. "We are committed to providing our customer base with an unparalleled service experience and will continue to work diligently to develop the most innovative engine, airframe and APU programs on the market."

One company with plenty of exposure in the Latin America is **Vector Aerospace**, which has a long history providing MRO services, rotary and fixed wing, throughout the continent. "We continue to provide superior MRO solutions for many of the leading OEM's - such as Pratt & Whitney Canada, Turbomeca, Rolls Royce, GE, Honeywell, Eurocopter and Eurocopter and, in the coming months, we will establish our first Latin American subsidiary and service center in Jacarei (near Sao Paulo)," says Raj Rawana, Director of Marketing and Communications. "This 2700 m2 service center will provide support for our local customers for engine and helicopter maintenance."

At LABACE, Vector Aerospace signed a service agreement with TAM EXECUTIVA, based in Sao Paulo, Brazil, to perform engine repair, hot section inspections (HSI), testing, modification, overhaul services, and parts distribution on PT6A and JT15D Series Aircraft Gas Turbine Engines, along with engine repair, Major Periodic Inspection (MPI), testing, modification, Core Zone Inspection (CZI) services, on TFE 731 Series Aircraft Gas Turbine Engines.

"This Service Agreement is important for Vector Aerospace and SECA, as it is an excellent opportunity for us to present our wide range of fixed-wing and helicopter MRO services within the Latin American market," says Jeff Poirier, president of Vector Aerospace Engine Services – Atlantic. "Our knowledgeable team of sales and customer service specialists look forward to closely working with TAM EXECUTIVA to provide superior service and support their specific repair, overhaul and fleet maintenance requirements."

MRO
Vector Aerospace signed an agreement with TAM EXECUTIVA at the show for a range of repair, overhaul and fleet maintenance services.

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GOING UP WHEN THE WEATHER'S DOWN

By LeRoy Cook

Staring at the leaden sky, I couldn't judge the ceiling—indefinite would probably the applicable term. Visibility was barely sufficient to see the end of the runway; call it a half-mile, perhaps. Should I launch, or wait for an improvement?

Most of the time, we're concerned with landing weather, when the necessity to bring the aircraft safely to earth, somewhere, is absolute and inviolate. Takeoffs, as the saying goes, are optional; landings are mandatory. However, we often feel a certain urgency to get underway, considering the takeoff a matter of course and leading us to disregard the departure weather. As long as we can see the centerline, we should be able to depart—right?

There are reasons to consider takeoff weather as urgently as landing minima. While it may be legal, in some operations, to depart without regard to the reported conditions at the departure airport, it may not be smart. I have taught pilots to perform completely-blinded ITOs (instrument takeoffs) if the student's performance and runway width were adequate, but only as a confidence-building maneuver. It is, I stressed, something to be used with great discretion, considering the risks involved. Other factors, beyond one's ability to keep the airplane within the confines of the runway long enough to reach liftoff speed, need to be mixed into the departure decision process.

BLURRED
The visibility was barely sufficient to see the end of the runway.

What IF?

For instance, how does one handle an instrument failure, undetected until rotation, or gauge acceleration rate, without adequate visual cues? Making a commitment to fly as soon as the throttles are pushed up is a heavy bet. If the takeoff is made under zero-zero conditions, or nearly so, there aren't a lot of options. Well-briefed crew coordination helps, with the PNF calling out and monitoring while the PF is riveted to the task. However, an abnormality is more difficult to cope with when you can't see much of anything.

Operating single-pilot in these situations should definitely be cause to wait for some improvement. Without backup, there's little chance for the sole crew member to assess, decide and execute if something unexpected arises during a takeoff made with minimal references.

Is it better to launch in low weather at night or during daytime? Most us prefer the warm glow of daytime to stark blackness, probably for reasons of primordial instinct, diurnal creatures that we are. However, the runway lighting may be glaring during darkness, but much softer in muted daylight. In either case, lights are often the only visible references in the takeoff environment. When the RVR is down, those centerline lights are a lifeline.

How low should we go, when assessing our ability to make a takeoff? Commercial operations usually dictate at least a quarter-mile of visibility, which is little enough to ask, and often special conditions add an extra margin at certain airports. Coming upon a wandering animal or piece of debris in the middle of the runway during the takeoff run, as it looms out of the fog 1,200 feet ahead, hardly gives time for

more than a duck and feint. Seeing the complete runway, from end to end, gives confidence in one's ability to negotiate a takeoff. Nevertheless, all of us have had to depart with less visibility than that, presumably with full regard as to risk assessment.

The likelihood of a hazard on the runway being somewhat remote, it is probably more important to consider the after-liftoff scenario. Some fields are so hemmed in by nearby obstructions that either a very steep climb gradient is needed to clear them, or visual conditions must prevail during climb until the need to weave around the hazards no longer exists. Each departure direction presents its own need for assessment, both on charted reference and with your knowledge gleaned from familiarity and local sources. Bear in mind that a decision to depart with a tailwind component, however slight, biases climb gradient markedly, in a negative direction.

Negative Return

If landing minimums do not exist at the departure field, making the takeoff a one-way trip, further risk management must be done. Since we're not coming back, it's necessary to play the what-if game to an even-greater degree. I would want a comfortable, well-staffed airport nearby, hopefully in the same general area, offering adequate landing weather.

The concept of designating a takeoff alternate when the departure airport's weather is below landing minimums is familiar to airline crews and dispatchers. An available alternate must be within reach, within no more than 60 minutes at single-engine cruise for twins (120 minutes for three or four-engines), or the flight does not go. My comfort level agrees with this plan, even without paying passengers, and I'd prefer to have a quick-landing alternative much closer than an hour away.

It's not the idea of an engine failure that concerns me as much as unforeseen challenges; unexpected ice may build during climbout, or ice protection may fail to activate. Pressurization may not be holding, the landing gear might not want to retract, an unusual noise or smell might present itself—there are any number of reasons one might need a quick return-for-landing. If you've burned your bridges, then need to get back across the stream, where will you make the crossing?

The sadly-missed drama of a Space Shuttle launch from Florida was replete with contingency planning. An engine failure early on required a looping return to the Cape (RTLS, or Return To Launch Site), a later loss of climb thrust targeted a runway across the Atlantic (TAL, or Trans Atlantic Landing), and an anomaly even further downrange gave the option of a single orbit to land back in the U.S (AOA, or Abort Once Around). Once orbital velocity was achieved, further assessments needed to be made to assure that the vehicle was "go" for the planned mission, since the stress and strain of being blasted out of the atmosphere to 17,500 mph could have taken its toll on the orbiter. We need to follow this line of thinking when we depart into much lower heights.

What's The Hurry?

A departure in very low weather is not something to be rushed into, or even handled at the pace of a routine takeoff. Extra care should be taken with checklists and briefings; the pilot not flying has a definite role in monitoring, making callouts and watching outside. Give the instruments ample time to stabilize, whether they are the old iron gyros or AHRS platforms. There have been some spectacular accidents from pilots following spinning gyro instruments that weren't fully erect, trying to depart when the clouds were right down on the deck.

The lineup needs to be deliberately paused, making sure the heading you're going to track during the roll will keep you on the centerline. But, have you thought about the wind? A crosswind is going to set up drift as the takeoff run progresses, and unless you factor in control to offset it, the limited visibility may keep you from catching the deviation. In low-viz, acceleration may give you false feelings of movement; stay alert.

Because you're already in the weather, sitting on the ground, there won't be a lot of time to think about switches, controls and radios after liftoff; make very sure you're really ready when you push up the power. Ice protection needs to be on, lights configured, pumps and ignition double-checked, avionics set for minimal distraction.

An abnormality very early in the takeoff run is grounds for aborting, but as speed nears V1, consider that you're going to fly unless there's a serious inability to get off the ground. Better to take your chances troubleshooting in the air, at a safe altitude between layers, instead of fumbling around on the runway.

The pilot flying should be on the gauges from brakes release; peripheral cues like the centerline or lights can back up the heading reference, but holding that alignment is primary. There should be no S-turning or wobbling; take care to get to liftoff on the centerline, smoothly transitioning to a wings-level pitch attitude that means you're going flying. Once airborne in the clag, climb on the assigned heading and minimize movements until you're well clear of anything you can hit.

I'm as guilty as anyone about giving the takeoff, in a familiar airplane at a familiar runway, very little thought. When the weather's down, though, we need to raise our risk awareness threshold much higher. Insist on having a comfort factor.

FOCUS
The pilot flying should be on the gauges from break release.

RUSSIA

By Bernard Fitzsimons

RUSSIAN EVOLUTION

The business jet fleet in Russia and the Confederation of Independent States just keeps growing, and with it the demand for maintenance support.

Economic growth may have slowed in Russia, but energy exports remain lucrative and Moscow is home to more billionaires than any other city on Earth. The country's economic growth in the long term may depend on government investment in the modernization and diversification of manufacturing industry, but Bombardier predicts that a business jet fleet that grew from 100 aircraft in 2004 to four times that number just seven years later will add more than 500 new aircraft in the current decade and more than 1,000 in the 2020s to reach 1,800 by 2031.

MRO
Located in Vilnius, FL Technics Jets has Russia as principal target for its MRO sevices.

Located just over 400 nm west of Moscow in the Lithuanian capital of Vilnius, FL Technics Jets, the Business Aviation subsidiary of Avia Solutions Group, has made Russia a principal sales target for its MRO services. According to CEO Darius Saluga, around 300 business jets are currently being operated in Russia. Given the forecast growth of the fleet over the next 20 years he predicts there will be continuous growth in the demand for MRO support. But local aftermarket support for Business Aviation is still at an early stage of development.

"One of the main issues," says Saluga, "is the fact that for a number of reasons many local owners and operators prefer to maintain their jets outside Russia, rather than within its borders."

One reason is that the majority of business jets in Russia are registered in Aruba, Bermuda or other jurisdictions: "Many global industry players are still quite skeptical about the local aviation authorities' capabilities to ensure proper supervision of aircraft technical maintenance."

Furthermore, Saluga says, the market still lacks EASA-certified providers capable of offering a comprehensive package of MRO services, including base maintenance and express spare parts logistics. When it comes to spares, in fact, "the number of serious issues to overcome is astonishing," he says. "Due to current customs rules, importing aircraft spare parts to the Russian Federation can take as long as an entire week." There are certain exceptions in an AOG situation, but they are mostly applied only in the case of AOC holders.

Spares on Site

In Moscow, meanwhile, Vitaly Aleksikov, general manager of Jet Aviation Vnukovo, says his customers will be pleased at the addition of stocks of OEM spares to its facility at the airport. By July the operation had taken delivery of a two-part consign-

ment stock of Embraer spares, adding to an existing consignment from Bombardier, and it expected to add another from Gulfstream by September. A small number of Gulfstream spares that had been housed in a bonded warehouse at the airport have been returned unused, he says: "We now want to have much more dedicated stock which will satisfy the requirements of our customers."

When it comes to importing new parts, he says, the situation has not eased appreciably. It usually takes four or five days, though there has been some refinement of the process and Bombardier spares now take less than four days and there are moves to halve that period: "We are dealing now with one local company which has promised to deliver the spare parts in two days."

The Vnukovo facility is a line maintenance and AOG facility for the Bombardier Learjet 60, Challenger 604, 605 and 850, Global Express 5000 and a new addition in the form of the Global Express 6000. It is a warranty line service facility for all but the newest Gulfstreams and an authorized service center for the Embraer Legacy. It also services the Hawker 700, 800 and 850XP. It had been intended to add a rating for the Dassault Falcon, but that plan is now on hold for the time being. Fourteen of the 26 staff are certifying engineers.

Falcon Support

One factor favoring providers located away from the Moscow airports is that of labor costs, says Darius Saluga: "The overwhelming majority of Russian business jets, along with the main local MRO providers, are located in Moscow. Due to the exceptionally high cost of living in the Russian capital, labor costs for MRO services are as high as those in Western Europe."

Just a couple of hours' flying time from Moscow, he says, the situation changes significantly. MRO labor rates in Eastern Europe and the Baltics are 30-40 per cent lower. And being located within the European Union, eastern European providers such as FL Technics Jets are capable of ensuring prompt and cost-effective parts supply for any maintenance works, which can significantly reduce the final bill for aircraft owners.

Another distinctive feature of the Russian fleet is its age. Unlike, American owners and operators, for example, Saluga says Russians prefer to acquire brand new aircraft rather than pre-used ones. This maintains the relatively low overall age of the Russian business aviation fleet — the majority of aircraft are seven years old or less. That is likely to change, however: "We estimate that in just a few years' time the number of pre-used aircraft in Russia will almost double to as many as 300 jets, eventually triggering a higher demand for such MRO works as heavy maintenance, landing gear and overhaul."

As a global provider of integrated aircraft maintenance, repair and overhaul solutions for business aviation, Saluga says FL Technics Jets holds an EASA Part 145 certificate and has all relevant approvals from the Federal Air Transportation Agency of the Russian Federation as well as the Aruba, Bermuda and Cayman Islands authorities, allowing the company to support all potential business aviation aircraft in Russia.

Along with line and base maintenance, the company offers cabin refurbishment, engine management; express spare parts delivery and aircraft conversion, plus aviation oils and fluids supply and other services. FL Technics Jets is the first Hawker Beechcraft ASC for serving warranted Hawker 125 series aircraft in Eastern Europe. The company is also one of only a few European MRO centers that provide maintenance services for Hawker BAe-125 series NLG/MLG aircraft wheels and brakes. It plans to extend its capabilities to cover the Bombardier Challenger 850 and CRJ 100/200 in the second half of this year.

Bombardier has been expanding the scope of its support in Russia itself. Last year Tulpar Technic in Kazan, capital of the Republic of Tatarstan and 400 nm to the east of Moscow, became an authorized service facility (ASF) for the Challenger 850, along with the CRJ100 and CRJ200 regional jets, in Russia and the CIS. April this year saw the company become a line maintenance facility (LMF) for both

SCOPE
Jet Aviation Vnukovo is a line maintenance and AOG facility for Bombardier aircraft, a warranty line service for Gulfstreams and an authorized service center for Embaer Legacy. Darius Saluga (right)

the Challenger 850 and Challenger 300. As part of the agreement, Tulpar Technic will also work to expand it LMF authorization to include the Challenger 605 and the Global family.

"We have been working closely with Tulpar Technic in recent months as they gain experience on our products and build a strong knowledge base," comments Eric Martel, Bombardier Aerospace president, customer services and specialized and amphibious Aircraft. "Our Challenger 300 and Challenger 850 business aircraft operators based in or flying into Russia and the CIS will now have greater access to superior maintenance and aircraft-on-ground services."

The manufacturer says it has experienced significant growth in Russia and the CIS over the past six years: in 2007, the regional fleet totaled eight aircraft, but by the end of 2012 it had grown to several times over to reach a total of 64.

Winter Operations

Operating aircraft during the long, cold Russian winter presents a challenge to operators, but Gulfstream has published separate Cold Weather Operations Manuals for its mid-cabin and large-cabin aircraft. Available to operators on the company's customer website, myGulfstream.com, they offer information on preflight planning to post-flight operation of Gulfstream aircraft in cold and extreme weather, where snow, ice and frost are forecast, imminent or present. They include general recommendations, a cold weather operations flowchart and de-icing procedures.

WINTER Gulfstream has published separate Cold Weather Ops Manuals for its mid and large cabin aircraft.

Gulfstream Guidance

Gulfstream says the most recent addition to its list of customer resources in Russia and the CIS came in May with the positioning of a Gulfstream Field and Airborne Support Team (FAST) maintenance engineer in Kiev, Ukraine.

Gulfstream has five other FAST maintenance engineers based in various parts of Europe. These engineers can be dispatched by aircraft, train, car or van and are available 24 hours a day, seven days a week, to respond to maintenance issues in the field. Each is type-rated on multiple Gulfstream aircraft models. All are EASA-licensed mechanical and/or electrical engineers, and have US Federal Aviation Administration airframe and powerplant licenses.

Jet's Aleksikov says standard cold weather procedures include additional inspections for deicing fluid residues and more frequent lubrication. "Winter operations in Russia are unique," he says. "Because of the extremely low temperatures we have a lot of cases of water system freezing." More frequent applications of anti-icing and de-icing fluids means there is a risk of their collecting in aircraft parts. "Usually when we are carrying out our weekly inspections of the aircraft we look for anti-icing and de-icing fluids on the aircraft parts, and if we find them we remove them and clean them," he says.

The inspection typically takes two or three hours, with another couple of hours for the cleaning, depending on the findings: "It is recommended to do these inspections once a month, but sometimes customers ask us to do them more often." The number of aircraft at Vnukovo makes these inspections a near-daily occurrence.

Lubrication is normally carried out every 250 flying hours, but in winter the recommended intervals are reduced, Aleksikov says: "It is recommended to reduce the number of hours to avoid issues with the flaps, slats and landing gear." Because of the low temperatures Jet also recommends that customers remove the batteries from the aircraft and keep them in a warm environment: "This is another of the measures to avoid delays during winter operations."

For operations to Siberia, where the conditions are even more extreme, customer sometimes ask for an engineer to accompany the flight. Their main task, says Aleksikov, is to keep the auxiliary power unit running. "If you switch off the APU the aircraft will be totally frozen and you will not be able to start it again," he explains. Customers may want the water drained to keep it from freezing in the pipes, "but usually it's just to keep the APU on and keep the aircraft heated." In one case last winter an operator asked for an engineer to go to Krasnoyarsk, 1,800 nm east of Moscow, simply to sit in the aircraft and keep the APU going: "When it's minus 40 degrees it's very dangerous to switch off the APU."

Dealing with AOGs at remote airports is one of Jet Aviation Vnukovo's principal activities, Aleksikov adds. Sometimes there can be as many as five or six AOG requests in a single week. Usually engineers travel on commercial flights from one of the Moscow airports, though occasionally a customer aircraft is used to transport personnel, spares and tooling to the site of the stricken aircraft.

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MEL – A RISK MANAGEMENT TOOL

By Michael R. Grüninger
and Capt. Carl C. Norgren
of Great Circle Services AG (GCS)

Regular readers of this column will recognize the following accident from a previous Safety Sense article published in the Oct/Nov issue 2012 in which we analyzed the aspect of poor checklist discipline. In the following article we look at the role of the Minimum Equipment List (MEL) in this accident.

On 20 August 2008 Spanair's flight JKK5022, a McDonnell Douglas MD-82 aircraft, accelerates down runway 36L at Madrid-Barajas airport in day VMC. It struggles to get airborne and impacts terrain to the east of the runway. The impact and subsequent fire destroy the aircraft in a ball of fire and black smoke. 154 of the 172 occupants are killed with the remainder are seriously injured.

The aircraft commander is pilot flying and the crew unintentionally attempts to take off without the flaps/slats set for take-off. Four seconds after becoming airborne over the runway, the stick shaker activates and both pitch and roll control are lost as the aircraft stalls. The crew does not recognize the incorrect configuration of the aircraft and 14 seconds later the aircraft impacts terrain at a position some 60 meters from the runway centerline. It breaks up and an intense fire ensues.

During the investigation carried out by the Spanish Accident Investigation Board (CIAIAC) investigators are puzzled by the fact that the take-off warning system (TOWS) had not activated during the take off roll to warn the crew of the incorrect aircraft configuration.

Prior to the accident the aircraft had taxied out for departure but had returned due to a fault of the Ram Air Temperature (RAT) probe heating. The heating of the RAT probe is controlled by a ground sensing relay and normally only operates when the aircraft is airborne. On the accident aircraft it had been heating on the ground during taxiing.

OVERLOOK
Inadvertently, the crew attempted to take off without the flaps/slats set for takeoff.

The faulty RAT probe heating was not repaired. Investigators found that the aircraft was released to service according to the Minimum Equipment List entry for RAT probe heating inoperative. No troubleshooting was performed to establish whether the RAT probe was in itself defective, or whether the ground sensing relay controlling the RAT probe heating was defective. This is a critical point as the ground sensing relay also controls the TOWS.

During the investigation it proved impossible to establish reliably what caused the TOWS to malfunction. However, it was found that there had been many previous instances in the worldwide MD-80 fleet where inoperative TOWS had been linked to faults with RAT probe heating. This association was attributed to the ground sensing relay which controls both the RAT probe heating (which is only active when airborne) and the TOWS (which is only active on ground).

The MEL did not contain maintenance and operating procedures requiring the verification of the proper operation of the TOWS as part of releasing the aircraft to service with an inoperative RAT probe heater.

The accident investigators recommend in their final report on this accident that EASA issue an interpretation regarding the need to identify the source of a malfunction prior to using an MEL. The CIAIAC also recommend that the MMEL for the MD-80 family should be modified to include maintenance (M) and operating (O) procedures for dispatch with RAT probe heating inoperative to check that the TOWS is operative.

Purpose of the Minimum Equipment List

The MEL, in this context, serves two purposes. The first purpose is to identify those components or equipment which may be inoperative without rendering the aircraft un-airworthy.

Certifying Staff decide upon the airworthiness of an aircraft. Operations personnel, including pilots, are not qualified to make decisions on airworthiness, unless they are based on a Minimum Equipment List.

A Minimum Equipment List (MEL) is a precise listing of instruments, equipment and procedures that allows an individual aircraft to be operated under specific conditions with inoperative components or equipment. As such it is an important decision-making tool to determine the airworthiness of an aircraft.

The airworthiness of an aircraft is based on the assumption that all components and navigation and communication equipment are operative and serviceable for the intended flight. The aircraft manufacturer and operators risk assess the need for the installation of redundant systems. Were more than the required components or systems are installed an aircraft remains airworthy even when some of the supernumerary components are unserviceable.

In addition, not all components or equipment are required for all flights, depending on the operating and environmental conditions. A flight in bright daylight does not require the use of certain lights for example. Conditions such as day and night, VMC and IMC, airspace classification, operation with or without passengers determine the need for systems required for an aircraft to be deemed airworthy.

MEL as the Link between Airworthiness and Operations

The MEL reflects the technical systems installed in the aircraft, the applicable regulation in the State of Registry and the operational environment.

The type certificate determines the basic rules according to which the aircraft was initially certified airworthy. Depending on the systems installed, any redundancy can be taken into account to maintain the airworthiness even after a component or system failure. The technical characteristics of each aircraft model are taken into account by the manufacturer when establishing the Master Minimum Equipment List (MMEL). The MMEL does not take into account the regulations of the State of Registry as well as the specific operating environment of the aircraft.

The applicable regulation of the State of Registry, the specific aircraft configuration including optional equipment and supplemental equipment installed in an individual aircraft and the specific operating environment has to be taken into account when tailoring the MEL. The importance of the MEL is recognized by aviation authorities who generally require their operators to update MELs latest 90 days after the manufacturer has revised the MMEL.

MEL as Risk Mitigation

The second purpose is to serve as guidance to crew and technical staff to conduct safety related activities prior to commencing the flight. The MEL is a risk management tool and forms an important part of the Safety Management System of an aircraft operator. To ensure that operators take the customization of the MEL seriously, most regulators require MEL revisions to be submitted for review before being approved to ensure operational considerations are considered in the MEL.

The devastating consequence of a lack of a comprehensive MEL as an effective barrier in the safety net in support of aircraft operation was highlighted by this MD-82 crash. Spanair's personnel were not required by procedures laid down in the MEL to properly identify the actual technical malfunction. In good faith they released the aircraft based on a symptom of a failure rather than on the technical failure itself.

SAFA

European SAFA inspectors review the MEL status of aircraft as part of their inspection program. While a MEL must be prepared and carried on all commercial flights, for private operations not all states require a MEL. A large part of the Business Aviation community today operates in regulatory environments either without a MEL or with the non-tailored MMEL. With the new EASA Part-NCC regulations a MEL will become mandatory for all operations with complex motor-powered aircraft.

Increasing Complexity – Reducing Clarity

As electronic aircraft systems become ever more complex and more inter-linked, understanding failures within such systems becomes ever more demanding. A single point of failure can have multiple consequences. Similarly, a single symptom can be caused by multiple failures. This increased level of complexity of aircraft systems makes it more demanding to identify the correct cause of a failure and to decide on the correct MEL item to apply.

In the case of flight JKK5022 the exact cause of the observed failure of the RAT probe heating was never established. The RAT probe heating could in itself have been defective, or it could have been a symptom for the failure of a different system such as the ground sensing relay controlling the status of the RAT probe heating. Unfortunately the particular MEL did not contain maintenance and operating procedures designed to identify the exact failure. As such it could well be that the ground sensing relay was in fact defective. This would also have caused the TOWS to be inoperative and would explain why this vital system did not activate when the crew applied take-off thrust.

EFIS Messages

For modern EFIS equipped aircraft some aircraft manufacturers have included separate sections in their MELs listing EICAS or ECAM messages and the dispatch requirements associated with each advisory and caution message. While this might ease the process of finding the applicable MEL entry, it does not remove the fundamental problem of identifying the exact technical failure.

Mindfulness – The Last Line of Defense

Expert technical writers will customize a MEL by taking into account the MMEL, the operational environment and safety management inputs in order to make it a valuable tool for decision-making.

As with all flight safety documentation in aviation, not every conceivable scenario which occurs in the real world can be covered in detail. That's why flight crews, maintenance technicians and other operations staff protect themselves and their passengers by remaining mindful and vigilant.

Mindfulness will remain the last line of defense when releasing aircraft to service with items inoperative.

Michael R. Grüninger is Managing Director and Capt. Carl C. Norgren is Head of Business Development of Great Circle Services (GCS) Safety Solutions. GCS assists in the whole range of planning and management issues, offering customized solutions to strengthen the position of a business in the aviation market. Its services include training and auditing (IS-BAO, IOSA), consultancy, manual development and process engineering. GCS can be reached at www.gcs-safety.com and +41-41 460 46 60. The column Safety Sense appears regularly in BART International.

SAFETY
MEL will become mandatory for all complex motor powered aircraft in the new EASA Part NCC regulation.

BRINGING BUSINESS AVIATION TO AFRICA

Nick Klenske

According to the International Monetary Fund (IMF), seven of the top ten fastest growing economies in the next 10 years will be in Africa. Further, according to Standard Chartered forecasts, Africa's economy will grow at an average annual rate of seven percent over the next 20 years.

Of course this growth is more about what lies under the earth's surface than above, as much of this excitement is related to the continent's booming mining environment. After all, Africa is home to a remarkable 30 percent of the world's total mineral resources. Needless to say, this number is rapidly attracting investments from many large, multinational mining corporations.

As the mining boom spreads, many African countries find themselves struggling to keep up with a regulatory environment and infrastructure that meets corporate demands. This situation is further complicated by the fact that most of these natural resources are located in remote locations.

Although many African countries are looking to increase spending on railways and roads to help unlock their valuable mineral deposits and attract further foreign investment, as of now air travel is often the only reliable mode of transportation. And Business Aviation is leading the way.

To lead this effort, in 2012 the African Business Aviation Association (AfBAA) was formed. "The goal is to establish Business Aviation as an asset that is recognized, valued and supported by governments, their respective aviation authorities, enterprises, entrepreneurs and business leaders throughout Africa," says AfBAA Executive Director Rady Fahmy.

In order to emphasize that it is a pan-African association serving a very diverse continent, the AfBAA is headquartered in landlocked Rwanda. Interestingly, unlike many of its counterparts who focus their efforts on advocating for infrastructural and regulatory changes, AfBAA has a policy that favors seeking opportunities to showcase Business Aviation's many economic contributions and ways to suggest simple steps that government officials can take to incorporate the sector's needs into their own aviation planning.

POTENTIAL
Over the next seven years Africa's economy is expected to grow at an average rate of 7%.

The result of this 'soft diplomacy' approach is that it enables individual governmental authorities to fully understand how they will benefit from Business Aviation when they properly address such hurdles as safety and security; high access fees; an underdeveloped network of airports, airways, navigation, air traffic control and training facilities; and restrictive tariffs and legal restrictions.

Overcoming Challenges

With this background in mind, one can say, at the very least, flying to or from Africa can be a challenge – and a practice that requires some significant planning. According to Universal Weather and Aviation, when flying to or from Africa, tech stop planning will "usually be a function of great circle routing."

Regardless of where in Africa you are flying, all locations will require landing permits – meaning there are restrictions one must consider in terms of short notice flight changes. On top of this, another challenge is the lack of round-the-clock jet fuel available at many locations, along with limited support and security services.

Best advice from Universal for overcoming these hurdles: Plan for the most effective tech stops, and tech stop alternates, when operating with the African region.

Turnaround Time

Turnaround time at the most advanced stops tends to run around one hour, but this really depends on the type of aircraft, the amount of fuel required and the size of the available fuel truck.

Class Customs or Visas?

Upon arrival, customs will be notified, with all information being provided to the authorities in advance. However, for tech stops, custom clearance is rare – although one should always check with their third-party provider for exact visa requirements for individual tech stops.

Plastic?

As a general rule, all services, when arranged ahead of arrival time, can be paid via credit. Fuel cards are only accepted at some locations, so be sure to check ahead. Remember, those that do accept fuel cards often require the crew to have a jet fuel release with them at other locations. Due to security issues, carrying cash is not advised.

English?

Although English is the language of choice in such countries as Egypt, Senegal and Kenya, service personnel in other countries will have limited English-speaking ability. It is always advised to plan for translation services ahead of time.

Other Complications to Consider?

Universal always recommends operators to be aware of the geopolitical situation at tech stops. "It is best practice to obtain security briefs for locations you intend to visit in this region, and be aware that jet fuel shortages are possible from time to time, and advance notice of such shortages is often limited."

To summarize, when planning a tech stop, Universal recommends considering all possible variables. Have your landing-permit paperwork in order, confirm that insurance coverage is adequate for where you plan to operate, and consider the impact of landing permit lead times on short-notice schedule revisions.

"Every international flight is a new adventure," one advisor cautions. "Tech stops and routings that function well on one flight may not work as well on the next, so take the time to work effectively and consider and preplan all tech stops and alternate options."

The Key Markets

Nigeria is often positioned as the crown jewel in Africa's Business Aviation crown, namely as a result of its rapidly increasing appetite for business jets, which has skyrocketed from 50 privately owned jets in 2007 to over 150 in 2013. Much of this growth is directly driven by high net worth business operating in the oil/gas and mining industries.

Besides Nigeria, Angola is another key Business Aviation market that is enjoying the benefits of increased oil-related activities. Given that oil exploration drives Business Aviation in Africa, there are expectations of growth in such areas as the Central Africa region, particularly in South Sudan.

And one cannot write off South Africa, which has long been an established Business Aviation leader. Even if it is often left out of the talk about the emerging markets in Africa, it will remain a significant player (although Nigeria seems to be on a trajectory to supersede South Africa's top spot).

Outside these marquee markets, as previously mentioned, the infrastructure is rather harsh, meaning Africa remains primarily a turboprop market. One company keenly aware of this fact is Beechcraft and its versatile King Air. For example, the King Air 200 is ideal for any landing strip and is a favored business aircraft throughout Africa. This is particularly true in South Africa, which remains a leading market for the Wichita-based manufacturer.

One analysis of business turboprop deliveries to South Africa shows that Beechcraft's market share grew from 13% in 2008 to over 43% by 2012 –

AVERAGE
African tech-stops usually take around one hour depending on the type of aircraft.

According to Robert Habjanic, Sales Director, Africa, Bombardier Business Aircraft, Nigeria is the company's largest African market, with about 35 aircraft currently flying there. "The business aircraft market has been growing tremendously in Nigeria over the past five years," he says, attributing much of it to the fact that "Nigeria is an emerging market".

When examining the merits of the African market, one cannot ignore the fact that the economic downturn in such top-tier markets as Europe and the US has led jet manufacturers to scramble to find new markets – and Africa quickly drew their attention as a potential hot spot for private jets. So much so that Nigeria is now ranked only after China as the world's fastest growing private jet market.

Perhaps it is this fact alone that will drive Africa's growth as a Business Aviation hub – as more and more jets find their way into Africa, the infrastructure and regulatory regimes will evolve to better accommodate this industry's unique needs. In fact, in Nigeria you are already seeing this, as the development of multi-million dollar private jet hangars are sprouting up, glowing with such global names as ExecuJet, Caverton and EverGreen.

According to one industry expert, "The economy here is expanding, with increasing investments that will invariably necessitate instantaneous travel that the scheduled airlines simply cannot provide."

despite the ongoing financial crisis. The reason most often cited for the King Air's ongoing popularity is its combined short field performance and its near jet speed – making it a popular choice for company's looking for a cost-efficient, adaptable and reliable mode of transport for reaching their stakeholders across Africa.

To help support this growing market, Beechcraft has numerous authorized service centers in Africa, including in Lagos (Nigeria) and Lanseria (South Africa), along with a limited service center in Cape Town.

This by no means is to incline that Africa is a turboprop-only marketplace.

LEADER
All eyes are on Nigeria in the African business jet market.

To the contrary, the business jet market is definitely heating up – and the OEMs are not sparing any cost when it comes to claiming a part of this enticing market.

When it comes to the business jet market in Africa, again, all eyes are on Nigeria. First it was Dassault, who brought its aircraft to Abuja and Lagos as part of a sales tour. Not long after Cessna came flying by, displaying its Citation Jet3 and Sovereign at Abuja and Murtala Muhammed airports. Then, just three months later, the Bombardier Global 6000 was seen flying around the area (as part of a 12 city tour of Africa).

AFBAA TAKES OFF

As Business Aviation began to take off in Africa, the challenges of navigating through the regulations of a diverse continent became too great to 'do it alone'.
In order to promote the value of Business Aviation in Africa and to serve as the voice of an expanding industry, in May 2012 the African Business Aviation Association (AfBAA) was born.

To learn more, BART sat down with the organization's executive director, ***Rady Fahmy****.*

BART: Business Aviation has been in Africa for some years now, particularly in South Africa. At what point did it become clear that Business Aviation was an African industry?

Fahmy: It started with the bush pilots and has since developed into a full-fledged industry. Foreign investment continues to flow into Africa, particularly in the commodities arena where mines are located far into the underdeveloped interior. These areas tend to lack the infrastructure needed for commercial operations - and many countries even lack a national carrier. More so, where there are national carriers, they often use routes that follow historic, colonial-era North/South routes that aren't very practical for business' East/West needs. Thus, we have always viewed Business Aviation as a partner - not a competitor - to commercial aviation.

BART: What was the point that it was decided an African Business Aviation association was needed?

Fahmy: When Business Aviation moved away from being restricted to several specific countries (such as South Africa) and towards becoming a pan-continental industry, there was the start of a discussion on a need for a single, unified voice that spoke across Africa's many borders. This became particularly clear when a vice president from Gulfstream travelled to Africa and saw the potential for growth but lack of an industry spokesperson.

The AfBAA is modeled off of our sister organizations, including the EBAA and NBAA. We launched with an original 10 founding members in 2012 and, since then, have expanded this core to 20.

BART: How would you describe AfBAA's role?

Fahmy: Said simply, our core focus is on promoting the safety, security and infrastructure of the industry across the continent's 50 plus jurisdictions – each with their own regulatory structure.

On a more day-to-day level, we play a multifunctional role. For example, we place a lot of effort on researching the industry's demographics so as to have a clear picture of what's happening at all levels, and then use this information for building the case for Business Aviation in Africa.

As we are a continental organization, we have regular contact with the African Union, and have been granted an observer role on the AU's transportation committee. At the same time, we have developed a well-established network with the individual member state's civil aviation authorities to advise on regulatory and infrastructure-related matters.

Finally, we also play a public advocacy role, organizing symposiums and expositions to promote the many benefits that Business Aviation brings to Africa.

BART: Finally, where do you see Business Aviation in Africa going?

Fahmy: I see the industry continuing to become more and more of a continental driver for growth – extending beyond today's main hubs of South Africa, Egypt and Nigeria and evolving into a dynamic industry that supports the spirit of entrepreneurship that is blossoming in such places as western Africa and spreading to all corners of the continent.

ISSUES
Safety, Security and infrastructure, together make up the core focus of the AfBAA says Executive Director Rady Fahmy.

STAYING HUMBLE

ATTITUDE
Airplanes can teach you a lot, but only if you're humble enough to listen to them.

By LeRoy Cook

You might think that having been flying airplanes for about half the existence of heavier-than-air flight would give one some bragging rights. And you would be wrong. Over the years, I've learned that participation in aviation is a constantly-evolving field of endeavor, and just about the time you think you've seen it all, and know it all, you become re-apprised of just how little you do know. Being humbled is, after all, one method by which we remain trainable.

By the same token, every pilot I fly with, several dozen each year, has something to teach me. You should remain humble enough to accept nuggets of wisdom, or, conversely, stay ready to spot deviate tendencies that you wish to excise from your own flying. I know there's more than one way to fly an airplane—and all of them are right. However, procedures were put in place for valid reasons. Being humble means that we feel free to accept input, but will stick to what we know until we're sure a better method works. I'm still learning about this business.

Airplanes can teach us a lot—if we listen to them. An aircraft speaks to its pilot in multiple ways, not the least of which is a feeling that all is not well. By this I mean, an experienced pilot can expect certain sounds, vibrations and rates of acceleration from an aircraft in which connective hours have been spent. My first instructor taught me to "feel" the airplane through my fingertips, the balls of my feet and, yes, the seat of my pants. To ignore what the plane is saying is asking for a lesson in humiliation.

I often get asked why I prefer to hand-fly the airplane below 10,000 feet. I could say "The autopilot doesn't need the practice", acknowledging that I obviously could benefit from it. But the real reason I hand-fly when I can is so that I can stay in tune with the aircraft. I obtain feedback from the controls and, if I'm sufficiently experienced with the airplane, I can pick up signs of abnormal behavior.

What Is It Saying?

A good friend of mine rode through a horrendous takeoff accident in a heavily-laden bomber, which suffered the misfortune of a monsoon-caused windshift during the roll. In these aircraft, a certain target airspeed must be attained upon passing each designated spot along the runway, a speed-required technique that generally predicts when it's safe to continue or, in the absence of predicted acceleration, one must reject the takeoff. But, after using up half the distance, he could feel a slowing of acceleration after the quartering headwind suddenly became a following beam wind, and, knowing that it would be impossible to stop in the distance remaining, he elected to rotate early. Unfortunately,

treetops interfered with the plan; fortunately, all survived. The aircraft spoke truly when it told him it was sick.

I've ridden with many pilots who operate obliviously to the aircraft's stated wishes. Do not think that this is because he or she has acquired little time in the aircraft. Most likely, this blase approach is fostered by familiarity; after one has settled into the left seat for many repetitions, the acts of throwing the switches, winding up the engines and clicking on the electronics become second nature. Things always work, just as they've always done, so who needs a checklist?

But then, there's the time when something doesn't follow the norm. At that point, you may wish you had paid more attention earlier to the signs of changing performance. For instance, as a battery ages, it loses its cranking power in the cold, and will eventually refuse to start the aircraft. You're going nowhere that day; you knew winter was coming, but you expected an elderly battery to continue without service or replacement. Other systems may give you advance warning if you pay attention; woe to you if you don't notice early signs of failure until the HSI refuses to hold a heading, or wait until a door seal springs a pressurization leak, after a hiss had announced an outflow of air for weeks.

What Did I Forget?

I get humbled several times a year. Sometimes it's nothing more than having to exit the aircraft to kick a chock out from in front of the nosewheel when the marshaling crew is absent, complaining "Who put that there?". At other times, I have had to reschedule a whole day's appointments when the trip didn't go, because a checklist item refused to cooperate. My only recourse was to tell the passengers, "We need to put it back in the hangar, it's too broken to fly". If I had been paying attention earlier, I might have avoided those incidents. By humbling me, my aircraft, or the system in which it operates, keeps me from thinking I've got all the answers. "Observe, and learn, Grasshopper", says the airplane.

Even a perfect airplane can't overcome a flawed environment; I arrived overhead at a routine stop recently, noting a fresh set of displaced-threshold markings on the runway. My hurried departure assumed that a Notices to Airmen check was unnecessary; the distance was short, the airport was familiar. But, to my surprise, the automated information system stated that an airport improvement project had temporarily blocked off 600 feet of usable pavement. Given the conditions of the day, we were still able to operate in and out safely, but I was humbled.

Not Looking Right

Much has been written about landing expectancy and the accident toll it has tallied. In most cases, there was no reason to hurry the aircraft along to the crash site. The crews simply ignored the signs that things didn't look right, confusing another on-time arrival with true professionalism. Coming over the approach fix high and fast, then attempting to lose speed and altitude and perhaps by-passing positional awareness, can only lead to disasters like the American Airlines 757 crash at Cali, Columbia. Staying humble, fostering a willingness to listen, watch and learn, is the way to avoid a fixation on the single task beckoning us on.

I can well remember my very first arrival into Houston, Texas on the U.S. southern coast. It coincided with an eruption of monster thunderstorms over the destination airport. After a four-hour flight, it was necessary to divert to an alternate airfield on the other side of the city. I neglected the wind checks that are always critical when operating around severe weather, as I set up a hurried visual approach matching the path taken by other diverting aircraft. To my surprise, the termination of the glidepath shifted farther and farther downfield from the touchdown zone. Into the flare with idle power, runway passed by under the wheels until we finally touched down, halfway along the strip. The airplane was finally halted in the overrun area, safely but humbly, to say the least. A perimeter wind indicator showed the reason for the delayed touchdown—an outflow of wind from the storms on the other side of the city had caused a reversal of wind direction, just in time to affect my landing.

This was an early lesson in paying attention to the airplane's reaction to the operating environment. The signs were all there; an approach that became unstabilized, excessive float in the landing flare, wind cones that were rotating to different directions. I ignored the communication being sent my way, focusing on conducting a landing instead of considering the entire picture. If I had reacted properly to the first indication of a long landing, there would have been ample time to go around, resequence for the other runway and thereby avoid rolling off into the safety area.

Set Your Own Minimums

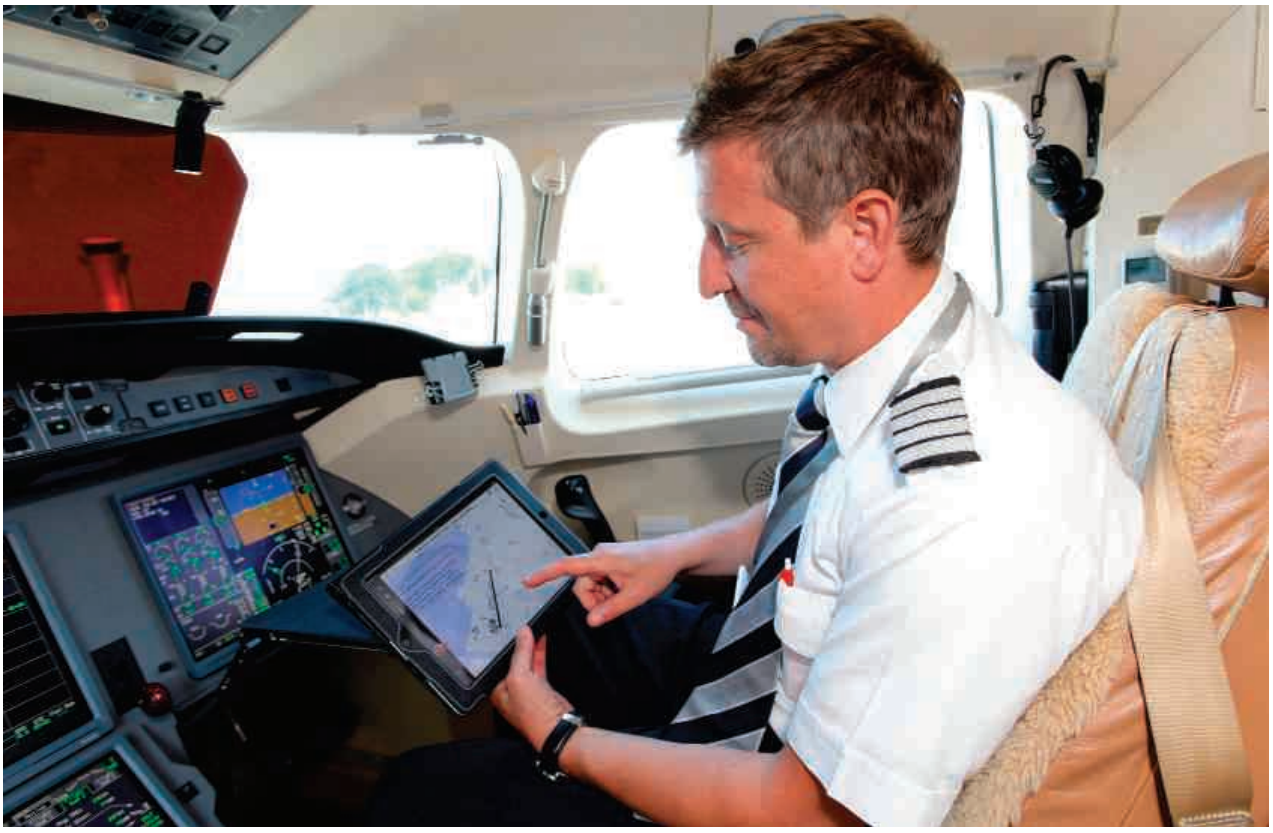
True professionalism means carrying a humble attitude into low-weather operations, not just sticking with legal limits. This is particularly important in single-pilot operations. Raise your takeoff and landing minima to match the pilot, aircraft and environment. Not always is your physical state, or the aircraft's condition, adequate for a difficult situation. The only thing that keeps you from plunging forward into loss-of-control or flight-into-terrain is your ability to stay humble.

I like to play "what if" frequently, both to myself and to a pilot in training. What options are available if an emergency descent was needed right now? How much more landing fuel would we have if we pulled power back, or what would be the effect of pushing it up to max-cruise? If the expected approach isn't available, what other methods of arrival does the airport have? I might request a newly-designated approach just to fly it under test conditions, preparing for the day when I'll need it for real.

A realistic approach to flying demands that we remain humble enough to watch for changes in the aircraft's operation, along with being skeptical of weather forecasts, projected fuel burns and reported airport conditions. Just because it worked last time doesn't mean we can relax our attention this time. As I've said quite often, confidence is a necessary ingredient of successful piloting. Overconfidence, however, is detrimental to longevity. Stay humble, learn what the airplane, and the system, has to teach you, and you'll avoid that heightened sense of confidence that spending many years in aviation tends to bring.

WITH ROBERT H. WELLS CEO TAG AVIATION

MEETING CUSTOMER EXPECTATIONS



SERVICE
Robert H. Wells notes that TAG Aviation Europe is part of a highly-complex service business.

Although it sometimes flies under the radar, TAG Aviation is the largest operator of managed aircraft in Europe. So in this issue, BART decided to put the spotlight on them by sitting down with Robert H. Wells, CEO, TAG Aviation Holding and TAG Aviation Europe.

BART: How would you characterize TAG Aviation?

Wells: It's primarily an aircraft charter and management business with a small FBO component and some maintenance capabilities. Really it's a case of something that started out as a charter business, before morphing into an aircraft management company. We are very lucky that we changed the business model in this way, because it has given us a great deal of stability. Out of the four components of our business, charter, management, FBO and maintenance - the charter segment is only one that has really been affected by the recession.

We're also lucky in that we offer, what you could call, a high-end service catering for people who fly long range or ultra long range flights. It's a segment that was not affected nearly as much as the others during the recession.

We focus primarily on large long range jets. To deliver the level of service that has allowed this company to be successful takes people and focus – the light jet market can't sustain the costs that are associated with that.

When I speak about service: go and look at the Geneva facility, it's a handling facility, it's rented space, it's not especially large and yet it was recently voted the number two FBO in the world. This is all to do with service and the people we have in place. The FBO manager has been there for 14 years; the clients love him that's why they keep coming back.

BART: Some aircraft management companies talk about offering, what they call, a full service solution, where they'll sell someone an aircraft, manage it, maintain it, and sell it on again. Is this something you offer?

Wells: We don't focus on aircraft sales, and in general we take a more client-focused operational side

approach. That's the best thing for our business. Maintenance is a growing part of our business. But package isn't the right word, because our clients are not required to do maintenance with us, even though 95% of them do. Our people still need to go out and earn the business from them.

BART: And is charter a big part of your business?
Wells: The charter side is always a good ancillary business. In that business, as you know, one of the eternal struggles is to control grey market illegal charter. It's something that is always going to be there and there isn't so much we can do about it. But there is a mainstream customer base in the charter business, where people want to see a company that has assets and has been around for a while. And the people who want charter on the cheap probably won't come to us. But that's OK.

BART: How does your fleet break down between corporate and aircraft that are owned by high net worth individuals?
Wells: In the UK, there is a higher proportion of corporate, although it's not like the US, where it's dominated by corporates. In Geneva, there is a much higher concentration of high net worth individuals and in Asia it's a meld of high net worth individuals that are corporate as well.

After five years of recession our fleet is slightly larger than it was in 2008. Probably the key issue there is what I call fleet demographics. Today there's a higher proportion of the larger aircraft than there was five years ago.

BART: What makes TAG Aviation different from the other Aircraft Management companies out there?
Wells: Ultimately we view ourselves as being in a highly complex service business. It requires an enormous attention to detail and we can never lose sight of the fact that it is a service business. That's the reason we have done so well in aircraft management.

We recognize that every client is different, that's one of the defining things about our business.

At the end of the day, our job is to make sure that whatever we deliver to a client is what they want. The agreements are standardized, but we are delivering a bespoke product to every single aircraft management client. Look, if these guys wanted to be flying first class on British Airways, they'd do it. But they want a bespoke service and that's why they come to people like us.

We don't go out and advertise to try target prospective clients. The clients come to us because they hear about us through other aircraft owners. That has always been the way the fleet works.

BART: What's the key to consistently delivering this level of service, when dealing with so many clients?
Wells: You have to structure the business in the right way and we structure it differently from anyone else. We put the primary client contact in the hands of about three people and basically we have our finger on the pulse. It's not about the ego boost of flying a Global or a G650 – it's about focusing on what that client wants. Ultimately that's why he bought an airplane, in the first place.

BART: And have you had to adjust your business during the recession?
Wells: Nobody was expecting the recession to last this long, but once you get into it you realize that you have to refocus your business. Nobody was prepared for it; indeed nobody has ever seen anything like this. It was my fourth cycle. But now we recognize that this is the new normal and so we had to change. And it was mostly just ensuring that we had a consistent service business, and that's what keeps us going today, which is a consistently growing profitable business.

BART: You have just opened a new facility at Sion. What need does that fulfill?
Wells: Well we have a very good problem, which is the increase in demand at Geneva. We built a great facility here, it was a hangar on top of a hangar, purpose built for maintenance not for storage. And I thought we might run out of space in 2015, but as it turns out, it's 2013 and we're out of space. So our manager came up with an idea, he thought that rather than having what you would call a line maintenance station, we needed to make Sion an ancillary location for Geneva. We can manage it and shift resources there and it's only 90 minutes away.

BART: Over the past few years, you have put a lot of effort into expanding into Asia. Is this just a case of taking the structure and the philosophy that you have in Europe and transplanting it to Asia?
Wells: No matter where you go with TAG in the world, the core structure of what we do is the same. What I have found over the years is that although clients who can buy a $50 million dollar aircraft are quite culturally different – there is an amazing commonality in what they are looking for. And they are more alike than they are different. So yes, we essentially took the same model and then adapted it. We have been in Asia now for around eight years but for the first four or five of those years we had about four or five airplanes – in the last three and a half it has exploded. Now we manage 40 aircraft, and with exception of one large operator in mainland China we are the largest operator there.

BART: You hear a lot about Asian jet owners who fly very few hours per year, is that something that's changing now?
Wells: I think in the beginning there was an aspirational aspect to the market – you don't see as much of that today. It's more and more mainstream now. Security is a big issue for Asian owners because they are going to places that they don't know much about. But we do and so we can help them. So it's not just about productivity.

The infrastructure is gradually improving in mainland China. Anyone that operates there frequently would say it could be better. We established a Beijing office – essentially to facilitate trips to mainland. Typically we take five to six days to get a permit but sometimes we can do it much faster than that.

LYON BRON EXPANDS AS BUSINESS AVIATION CENTER

By Paul Walsh

Le Bourget and Cannes Mandelieu are the first two airports that come to mind when you think of French Business Aviation.

One that is mentioned far less frequently is Lyon Bron. Yes, we can admit, although Lyon is charming it's not France's most glamorous destination, but did you know that during the first three months of 2013 Lyon Bron experienced 7.5 percent growth in Business Aviation traffic, and that it is the third busiest BizAv airport in France. So what's the secret behind this new found success?

SUCCESS Lyon Bron is now the third busiest Business Aviation airport in France.

First off, the airport is strategically located to serve as a feeder hub to more recognizable Business Aviation centers such as Geneva, and Cannes. And over the next five years, the airport will be doing its utmost to capitalize on this advantage. Under the guidance of newly appointed Manager Didier Pianelli, the airport perusing a significant expansion plan, which involves the construction of two new 43,000-sq-ft hangars, with the first of these slated for completion in 2014.

When I sit down with Pianelli he's quick to mention Lyon's benefits for travelers going to Aéroport Cannes Mandelieu, where MTOW is restricted to 49,000 lbs. For owners of a BBJ - clocking in at approximately 171,000 lbs –the best option is to fly to Lyon, leave the aircraft there and take a helicopter to Cannes. Well, it beats driving, and the helicopter trip shouldn't take longer than 1 hour 25 minutes.

And with Lyon Bron being a dedicated Business Aviation airport, the changeover from aircraft to helicopter is seamless.

"We are perfectly attuned to cater for customers like these" notes Pianelli. "They fly in, leave their aircraft here and immediately board a helicopter, which is waiting for them on the apron. And once the new hangar is completed customers will be able to leave their aircraft in Lyon for extended periods."

Lyon Bron's second big strength is its ability to accommodate surplus traffic from Geneva, an airport that is ramping up its emphasis on Commercial Aviation traffic. Here Lyon Bron's big advantage is its ability to take in night flights. "We have no slots and we're open every day from 6:30 am to 22:30 pm, says Pianelli. "And night flights are perfectly possible – once you schedule them in advance."

"Flexibility is one of our big selling points," he adds. "When it comes to parking, you can stay one week and if you want to stay longer, you can just call us up and it won't be a problem. The important thing is that we are a dedicated Business Aviation airport, we have a private lounge if you need it, and when our new hanger opens you'll have very easy access to it with car and limousine."

It's worth noting that Lyon's potential for growth goes far beyond these two new hangars. The airport currently has 185 hectors ready for expansion - 3.6 of these are available immediately.

"We're going to see many more investments. In maintenance BCA are here and they do a lot of work on Beechcraft models, but there's potential for more maintenance shops to set up. We're a good maintenance stop and we're a good refueling stop. After all Lyon is at the center of Europe. We have to use this advantage."

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