LCCs are a force to reckon with

The Airline Passenger Experience Association (APEX) was one of the key events in September. It’s the largest industry-driven tradeshow devoted to the entire passenger experience, this year’s instalment was held in Anaheim, California USA. The event drew about 3,500 attendees.

As the APEX organiser’s rightly state, in an industry as fast-paced and exciting as the airline passenger experience, some strategies are far likelier than others to succeed. It’s an environment where it pays to be aggressively informed and ambitious.

There were a series of educational seminars and discussions of topics that are moving the airline passenger experience. How will the “Internet of Everything” change everything? What is next in cabin innovation? And what prevalence will closed captioning have inflight? These were some of the captivating questions that were addressed. An awards ceremony after the event saw Virgin America scoop up some of the top awards.

Another interesting event that took place this month was the annual World Low Cost Airline Congress. Issues affecting the low cost airline market are getting a greater hearing and as usual the event attracted most of the big players. Ryanair’s CMO Kenny Jacobs spoke about his airline’s expansion plans in Europe with particular interest in Cyprus and Russia.

Speaking of Russia, Aeroflot is preparing to launch its much anticipated low cost unit. Aeroflot CEO Vitaly Saveliev said he hopes to have the LCC unit in the air by winter. The operation of low-cost airlines in Russia to date has not been met with success. The management at the Russian flag carrier have been speaking about replacing their failed LCC, which ceased operations as a result of EU sanctions. The company said restrictions imposed by the European Union led to the cancellation of aircraft lease, maintenance and insurance agreements.

It remains to be seen if conditions in Russia are now suitable for LCCs to thrive, going by Mr Saveliev’s speech at the low cost airline congress, it seems many of the issues impeding LCC growth are being ironed out. We’ll wait and see.

Happy reading!
Keith Mwanalushi
Editor
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Aerospace manufacturer Alcoa has signed a long-term contract to supply aluminum sheet and plate products to Boeing. The multiyear contract, valued at more than $1bn, is the largest ever between the two companies. “This historic agreement not only continues the 35-year Alcoa-Boeing partnership, it will take our collaboration on next-generation metallic technologies even further,” said Klaus Kleinfeld, Alcoa Chairman and Chief Executive Officer. “We are proud that Alcoa’s lightweight structural solutions will continue to fly on Boeing’s most advanced aircraft today, and that our metallic science leadership will contribute to the Boeing aircraft of tomorrow.” Notably, the agreement makes Alcoa sole supplier to Boeing for wing skins on all of its metallic structure airplanes. Alcoa plate products, used in applications such as wing ribs, wing skins or other structural parts of the aircraft, will also be on every Boeing platform, including the 787 Dreamliner. Finally, the agreement establishes a foundation for continued collaboration on new, high-strength and corrosion-resistant alloys, including aluminum-lithium that could be used for complex structural applications. Alcoa’s aerospace business, which had revenues totaling $4bn in 2013, holds leading market positions in aerospace sheet and plate produced by its mid-stream business, Global Rolled Products (GRP) and in aerospace forgings, extrusions, jet engine airfoils and fastening systems produced by its downstream business, Engineered Products and Solutions (EPS).

Alcoa signs multiyear supply contract with Boeing worth more than $1bn

ST Engineering’s Aerospace arm to establish MRO facility at Pensacola International Airport

ST Engineering released that VT Mobile Aerospace Engineering (VT MAE) and the City of Pensacola have signed an agreement to set up an aircraft maintenance, repair and overhaul (MRO) facility at the Pensacola International Airport in Pensacola, Florida. This follows the signing of the Memorandum of Understanding in December 2013. Under the agreement, the City of Pensacola will construct an aircraft hangar complex on 18.66 acres of greenfield land, and lease it to VT MAE for 30 years. The hangar will be able to accommodate two wide-body aircraft, and is expected to be ready for operations in mid 2016.

Boeing expands offering of serviceable parts through agreement with GA Telesis

Boeing has signed an agreement with GA Telesis to expand Boeing’s aftermarket parts portfolio to include serviceable commercial airplane parts. Boeing is now making new surplus, repairable and overhauled parts available to customers through a new Marketplace section of the Boeing PART (Part Analysis and Requirements Tracking) Page. The Boeing PART Page, available to customers, is one of the most frequented e-commerce sites in the aerospace industry. More than 43,000 users log over 40,000 interactions on the Boeing PART Page every day. “At Boeing, we want to be the one place our customers can come for almost any kind of airplane part they need — whether new or serviceable,” said Tim Copes, vice president of Material Services, the parts business within Boeing Commercial Aviation Services. “Boeing is actively working to expand its offering of serviceable parts to include parts for non-Boeing airplanes.” Serviceable parts are a fast-growing segment of the aviation parts market, outsizing new part sales. The serviceable parts market is valued at more than $3bn annually.

MTU Maintenance Zhuhai achieves 1500th shop visit milestone

MTU Maintenance Zhuhai has completed its 1500th shop visit since it commenced operations in 2003. The milestone was achieved through the scheduled shop visit of a CFM565B from an overseas customer. This highlights both the strong recent growth of this engine program and the increasing global reach of MTU Maintenance Zhuhai. In 2013 the company repaired and overhauled over 200 engines. Of which about one third came from overseas; mainly from operators in the Americas. For engines inducted over the course of 2014 so far, this share has grown to above 40%. MTU Maintenance Zhuhai, a 50:50 joint venture between MTU Aero Engines and China Southern Air Holding Company, is China’s market leader for engine MRO services. The company focuses on the repair of V2500 and CFM56 engines. In order to meet the growing expectations of the global aviation market, the company extended its main engine repair shop by the end of 2012 to increase the overall capacity by 50% from 200 to 300 shop visits per year.

AJW Aviation becomes authorised worldwide distributor of aircraft lamps for CML Innovative Technologies

AJW Aviation has signed a global distribution agreement with Chicago Miniature Lighting. Founded in 1931, CML manufactures a wide range of lighting that delivers optimum service life and top quality performance to meet the lighting requirements of aircraft manufacturers and maintenance facilities worldwide. This includes: Instrumental Lighting, Cabin Lighting, Flight Deck Lighting, Navigation and Anti-collision Lighting. CML also have the capabilities to design and manufacture LED solutions for all aircraft, delivering low energy and low maintenance, further reducing airline costs.

Russian Helicopters to build Russia’s largest helicopter gearbox and transmission assembly and testing facility

Russian Helicopters, a subsidiary of Oboronprom, part of State Corporation Rostec, has launched construction of a new assembly and testing facility at its Reductor-PM plant in Perm. On completion, the facility will be the largest of its type in Russia. Construction facilities are currently being put in place at the site, and preparatory groundworks are under way. At the official ceremony a plaque was unveiled with the start and end dates of the construction, August 2014 and December 2016. This period will see an advanced 20,000 m³ production facility built to house Reductor-PM’s assembly and testing plant. “The start of construction of this assembly and testing facility is an important event for this whole region,” said Perm region Governor Viktor Bасargin. “The development of advanced high-tech manufacturing will create a solid foundation for the regional economy and will be a key factor in its future growth, by making the region more attractive as an investment destination and strengthening its reputation as a national leader both economically and technologically.”

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Ameco Guangzhou Outstation performs line maintenance for Aeroflot

Ameco Guangzhou Outstation under-takes line maintenance for Aeroflot

Ameco Guangzhou Outstation started line maintenance for A330-300 from Aeroflot Russian Airlines on September 1st, 2014. It’s the 8th international 3rd-party customer for Ameco Guangzhou Outstation after Qatar Airways, Egyptair, Air France, Turkish Airlines, Air Madagascar, Garuda Indonesia as well as Iraq Airways. Headquartered in Beijing, Ameco’s international third-party line maintenance business extends to outstations in China with excellent network services in recent years. It performs line maintenance and release work for Aeroflot Russian Airlines in Beijing and Shanghai and with the opening air route of Aeroflot Russian Airlines from Moscow to Guangzhou, Ameco is to provide maintenance and release services for it once a day in Guangzhou.

Swiftair orders eight AEI B737-400SF conversions

Aeronautical Engineers reported that Swiftair S.A. has selected AEI to provide eight B737-400SF passenger to freighter conversions. The contract calls for four firm orders plus an additional four options. The first aircraft, built in 1991 (MSN 24438) is a high gross weight B737-400 and is currently being modified at Commercial Jet Inc. in Miami, Florida, which is an authorized AEI Conversion Center. The second aircraft (MSN 24445) is on location in Miami and will commence modification in mid-September. All eight aircraft will be modified at Commercial Jet Inc. in Miami, Florida.

Sabena technics signs heavy maintenance contract with Air Tahiti Nui

Sabena technics has signed a heavy maintenance contract with Air Tahiti Nui. Under this agreement, Sabena technics will be performing heavy maintenance visits (8C 12Y checks) on two of the airline’s Airbus A340s. The checks...
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will be carried out in Sabena technics facilities in Bordeaux (France) starting November 2014. Air Tahiti Nui’s trust in Sabena technics has been also demonstrated earlier this year for the heavy maintenance and painting of one of their Airbus A340 aircraft in February. “After a request for proposal, Air Tahiti Nui is determined to entrust Sabena technics with the next two C checks of its fleet, keeping in mind the conservation of the high technical level required for this heavy maintenance operation. Several criteria guided our choice: the performance on the previous C check, the advantages granted as well as the guarantees provided by Sabena technics”, said Gerard Maurin, Vice-President Operation of Air Tahiti Nui.

Pietro Rosa TBM partners with Rolls-Royce

Pietro Rosa TBM, a leading manufacturer of compressor airfoils for jet engines and complex aero – structural components, has signed a long term contract with Rolls-Royce for the production of a new concept airfoil for the Trent XWB engine. This contract is the result of more than three years research and development joint effort between Pietro Rosa TBM R&D team and Rolls-Royce advanced manufacturing team.

Bluebird Cargo awards TP Aerospace Leasing long-term wheels and brakes CFR program

Bluebird Cargo, an international cargo operator based in Iceland, has awarded TP Aerospace Leasing a long-term Wheels and Brakes Cycle Flat Rate (CFR) Program in support of its fleet of 5 B737 Cargo aircraft. With TP Aerospace Leasing’s highly flexible, cost effective and tailor made component maintenance, pool access, onsite sease inventory and logistics program in place, Bluebird Cargo will be able to save significantly financially as well as on time spent securing continuously fresh ready-to-install wheels and brakes in support of its operation.

Air management system for Antonov AN-178 transport aircraft from Liebherr-Aerospace

Antonov Company, Kiev (Ukraine), has selected Liebherr-Aerospace to supply a prototype of an integrated air management system for its AN-178 demonstrator aircraft. The prototype comprises an engine bleed air system, an air conditioning system, a cabin pressure control system as well as integrated electronic controls of these systems. The AN-178, a multipurpose transport aircraft derived from the AN-148/AN-158 regional jets family, has a payload up to 18 tons. The flight test activities are planned for the beginning of 2015. Liebherr-Aerospace’s systems are on board the AN-74, AN-140, AN-148 and AN-158 aircraft. The new agreement underlines the partnership between Antonov and Liebherr-Aerospace, which has been established during the past 20 years.

RUAG Aviation to market Jetcraft HUD Vision Access for Bombardier Challenger 604 and 605

RUAG Aviation has signed a dealership agreement with Jetcraft Corporation to market HUD Vision Access for the Bombardier Challenger 604 and 605. Under this agreement, RUAG Aviation will be responsible for the sale and installation of the enhanced flight vision system, consisting of various components including a head-up display (HUD) and infrared sensor. The advanced HUD Vision Access affords significant advantages to owners, operators and pilots of the Challenger 604 and 605. By enabling operations in low visibility conditions, the system enables aircraft to taxi, take-off and land under all conditions – improving safety and saving time. Furthermore, pilots with HUD Vision Access are able to descend below decision height at most airports, minimising ground-based infrastructure requirements and enabling access to a greater number of airports.

Photo: Liebherr-Aerospace
ST Engineering’s Aerospace arm injects capital into Xiamen Engine MRO joint venture

ST Aerospace, through its wholly owned subsidiary ST Aerospace Engines, will be injecting its pro rata share of US$20.8m (approximately S$25.98m), as additional capital into its Xiamen-based engine MRO joint venture company, ST Aerospace Technologies (Xiamen) Company (STATCO). The planned additional capital injection is subject to regulatory approvals by the Chinese authorities. Upon injection of the funds, STA Engines’ total share capital contribution in STATCO will stand at US$41.6m (approximately S$55.70m). The additional funding will support STATCO’s business growth. Operating out of the Xiamen Aviation Industry Zone at the Gaoqi International Airport since October 2011, STATCO is an 80:20 joint venture between STA Engines and Xiamen Aviation Industry Co (XAICO). STATCO provides MRO and total support services for CFM56-7B engines that power the Boeing 737 family of aircraft. The capital injection is not expected to have any material impact on the consolidated net tangible assets per share and earnings per share of ST Engineering for the current financial year.

GA Telesis provides $100m asset financing for major European airline

GA Telesis announced the closing of a new asset financing for a major European airline. The ten-year $100m transaction marks the third asset based financing transaction the company has closed in the last twelve months. Asset financing becomes yet another service that GA Telesis can provide operators and other investors in aviation assets, along with its widely known expertise in leasing, trading, acquisition, asset management, parts, and MRO services. Over the next three years, GA Telesis has budgeted up to $1bn for asset financing in various structures to meet its customers’ needs for innovative financing solutions. The transaction was financed jointly with GA Telesis’ shareholder, Century Tokyo Leasing, under undisclosed terms.

Standex signs agreement to acquire Enginetics

Standex International has entered into an exclusive agreement to acquire Ohio-based Enginetics Corporation, a leading producer of aircraft engine components for all major aircraft platforms. The completion of the transaction is subject to customary closing conditions and is anticipated to close on or before September 11th, 2014. Enginetics had revenue of approximately $30m in the trailing 12 months. This acquisition is expected to be accretive to earnings in the range of $0.03 to $0.05 excluding the impact of purchase accounting related to inventory and long term backlog in the remainder of Fiscal 2015 and $0.07 to $0.09 in the full year Fiscal 2016 excluding the impact of long term backlog. “This acquisition supports our corporate strategy to position our businesses for faster growth,” said Standex CEO David Dunbar. “Enginetics will further solidify Standex’s expansion into the steadily growing aviation market for high-efficiency engines. Enginetics’ hydroforming, press forming and stretch forming processes generate products that are highly complementary to our current offerings, and will enable deeper market penetration in aviation for our Engineering Technologies Group.”

BOC Aviation reports first half net profit of $163m

BOC Aviation achieved $163m in net profit after tax for the six months ended 30th June 2014, with a record number of deliveries in the first half to boost the fleet size above 250 for the first time. Total assets rose to $10.8bn. The Company held $496m in total cash and had over $2.3bn in unutilized committed credit facilities as of June 30th. It paid a dividend of $139m in June 2014 to Bank of China, which acquired the Company in December 2006. In the six months ended 30 June, BOC Aviation took delivery of 37 new aircraft, and sold 12 owned and managed aircraft. At the end of the period, the portfolio comprised 251 aircraft, ~232 owned and 19 managed – in service with 56 airlines in 30 countries worldwide. The Company has one of the youngest fleets in the industry with an average owned aircraft age of less than four years.

Graham Partners acquires independent aircraft tire specialist Desser

Graham Partners, a private investment firm focused on investing in businesses with advanced industrial technologies, innovative product offerings, and strong growth potential, announced its majority investment in Desser Tire & Rubber Company and affiliated companies, Aero Wheel & Brake Service Corporation and Cee Bailey’s Aircraft Plastics (collectively, “Desser”). Desser is primarily a leading supplier of aircraft tires and tubes from its Los Angeles and Memphis facilities to customers in over 100 countries. Graham Partners has been proactively seeking to make investments in the aviation product aftermarket, which Desser serves. Family-owned and operated since 1920, and exclusively focused on aviation markets since 1985, Desser supplies new aircraft tires, as well as other aviation products. Desser also holds Federal Aviation Administration (FAA) and European Aviation Safety Agency (EASA) approvals for high speed aircraft tire retreading and wheel and brake services, and produces aviation transparency for aftermarket applications. Graham Partners seeks not only to invest capital, but also to utilize its longstanding industry knowledge, resources, and contacts to improve operations and promote growth for its portfolio companies. Graham intends to leverage its operating resources and industry expertise to capitalize on Desser’s strong brand name and reputation.
Mid fuselage/center wing and aileron section of C919 aircraft delivered by XAC

Mid fuselage fuselage/center wing and aileron section of C919 aircraft passed airworthiness inspection at AVIC Xi’an Aircraft Industry (Group) (XAC) and was ready for delivery on August 29th, 2014. This is the second section delivered during the development of the C919 program, laying a solid foundation for airframe butt joint of the first C919 aircraft in the second half of this year. The mid fuselage/center wing and aileron section is in the middle part of the fuselage with an overall length of 5.99 m and a width of 3.96 m, and composed of a mid fuselage barrel section, a keel beam, center wings and emergency exit doors. This section is the center for the load transfer of the whole aircraft structure. This section comprises more than 8200 parts and involves more than 3400 toolings. In order to improve the performance of the whole aircraft and reduce structural weight, third generation aluminium-lithium alloy, 2024HDT aluminium alloy with high damage tolerance, and ultra-large titanium alloy forgings are widely used in the mid fuselage/center wing and aileron section, which is the first application on civil aircraft in China.

Embraer signs maintenance agreement for Rolls-Royce AE3007 engines in Brazil

The Embraer Executive Jets Service Center, in São José dos Campos, São Paulo, was named an authorized Rolls-Royce line maintenance center for the AE3007 engines in Brazil. The agreement allows Embraer to perform Rolls-Royce’s warranty or CorporateCare program services, which covers the cost of replacement parts, labor, as well as scheduled and unscheduled maintenance. The ERJ 145 family of jets and the Legacy 600/650 use AE3007 engines. “The new partnership between Embraer and Rolls-Royce seeks to assure efficient operations and convenience for our customers,” said Edson Carlos Mallaco, Director of Customer Support and Service – Embraer Executive Jets. “We are constantly investing in providing services in the region through integrated solutions and a highly qualified team. We hope to exceed the expectations of our operators.”

Lufthansa Technik Logistik Services opens new facility in Shenzhen

Lufthansa Technik Logistik Services (LTLS), a specialist in aviation logistics, has opened a new facility in the Chinese city of Shenzhen. With this step, the company has laid a foundation that will enable it to ensure more direct service to the growing Chinese market in the future. The new facility is located at the site of Lufthansa Technik Shenzhen (LTS), a Chinese subsidiary of Lufthansa Technik that was established for the supply and maintenance of components and aircraft structures made of composite materials. LTS recently concluded a building expansion program involving new construction of 24,000 m² of production, warehouse and office space – a measure that offered ideal conditions for the creation of the new logistics unit. More than 30 new employees at LTLS in Shenzhen will enjoy new space with modern equipment and the opportunity to work according to LTLS’ globally acknowledged high standards, including access to the extensive expertise and knowledge of other LTLS specialists all over the world. The new site features, among other things, a customs warehouse with 2,100 m² of space as well as a central incoming goods and shipping area.

Werner Aero Services acquires A321 aircraft for teardown

Werner Aero Services has acquired an Airbus A321 aircraft, serial number MSN 538, for teardown. The A321 will soon be entering the disassembly process at AeroTurbine, and its components will be used to support Werner Aero Services’ asset management business. The reclamation of this material represents another in Werner Aero Services disassembly line of A320 family aircraft to support operators and MROs around the world.

Greater Rockford Airport Authority signs agreement with AAR to build new hangar facility

The Greater Rockford Airport Authority (GRAA) has reached an agreement with Maintenance, Repair and Overhaul (MRO) provider, AAR, to build a new hangar facility on Chicago Rockford International Airport (RFD) grounds. The facility is expected to employ up to 500 people and expands RFD’s current service offerings and infrastructure. The 200,000 ft² MRO facility is expected to operate 24 hours a day and will service next-generation, wide-body aircraft. This will allow for scheduled and unscheduled service, modification and overhaul and all other support services for military and commercial aircraft. Final agreements between the partners are currently being developed and construction is expected to begin within the year. The hangar will be located in the mid-field area of the airport and is slated to open in Spring 2016. Rockford joins AAR’s six other MRO locations (Duluth, MN; Oklahoma City, OK; Miami, FL; Lake Charles, LA; Indianapolis, IN and Hot Springs, AR).
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Jet Aviation Moscow Vnukovo extends spares partnership with Bombardier

Jet Aviation Moscow Vnukovo has signed a new agreement with Bombardier for additional spare parts. Further to the spare parts agreement signed in 2012, Jet Aviation Moscow Vnukovo and Bombardier have agreed to increase the inventory of critical spare parts at Jet Aviation’s line maintenance and AOG facility in Moscow. Under the agreement, Jet Aviation is arranging customs clearance and transportation for the parts that Bombardier will ship.

CASL signs contract with AJW Aviation

Integrated aircraft support specialist, AJW Aviation (AJW), has contracted China Aircraft Services (CASL) to be a preferred provider of storage and logistics services in Hong Kong. The co-operative agreement is formed around the utilisation of CASL’s logistical hub, backed up by AJW’s Singapore office to provide a combined resource of aircraft support excellence across the region. AJW will provide aircraft parts pooling services to airlines, and CASL will act as a storage and logistics arm of AJW to manage the Airbus and Boeing parts positioned in Hong Kong. Airlines that have a high frequency of flights into Hong Kong will benefit from the efficiencies delivered by this shared expertise and CASL’s customer, Hunnu Air, is the first customer to enjoy this service. Based in Ulan Batar, this Mongolian airline operates two A320s on its Paris and Hong Kong routes and plans to introduce A330 aircraft in 2015. By partnering with CASL, AJW will offer 24/7 access to essential aircraft spare parts so airlines such as Hunnu Air can opt for a power-by-hour (PBH) agreement to align their operational costs and improve efficiency.
MONARCH AIRCRAFT ENGINEERING (MAEL) has an industry leading Continuing Airworthiness Management Organisation (CAMO) team. We provide support services to Monarch Airlines and other blue-chip operators in the UK, Europe, Middle East and Australasia.

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Cover story: Paint technologies

Making paint less of a drag

With the quest to reduce weight and fuel burn at the top of every airline operation’s strategy, the impact of new paint and coating technologies will be heavily scrutinised as air carriers seek to increase visibility without paying the price at the fuel pump. AviTrader MRO analyses the key issues with specialists from PPG Aerospace, Fokker Systems, Iberia and Eirtech Aviation.

Visibility is everything, especially in an industry where the visual aspect is key to differentiating a product or brand. Getting the airline livery right is key to communicating that brand and this involves several processes of which the paint job is one.

“Of course, a primary factor involved in the selection of a paint system by an airline is cost,” says Mark Cancilla, the global platform director at Aerospace Coatings, PPG Aerospace. “However, as the application process efficiency for the coatings is a key factor of the overall costs associated with the repainting, airlines do consider the ease with which the coatings are applied.”

Mr Cancilla stresses that the airlines also consider the overall film thickness capability of the paint system which influences the total weight of paint applied and the expected service life of the coating system.

According to Fokker Systems, from a paint specialist prospective the considerations before input for painting would be to determine the current paint condition, film thickness and if there are any special coatings applied on the last repaint, this would be in order to ensure the correct paint schedule to be maintained and that sufficient and the correct products are available.

Clearly, during the painting process there are many factors to consider, temperature, humidity, airflow, correct mixing and of course application of the primers and paints to be applied. “An aircraft operator would like to see the minimum downtime for their aircraft for the paint process while ensuring the highest standard of workmanship is applied, considering that the paint system is primarily a protective coating the opportunity to carry out a detailed inspection of the aircraft surface would be undertaken after the paint removal,” comments Peter Bulckaert, VP redelivery services at Fokker Services.

Richardson further explains that the onsite support personnel will want to see that the aircraft has been properly cleaned and prepared prior to paint application and that the paint (and primer materials) have been correctly stored (prior to use) mixed and details recorded and that all application aspects have been carried out as per manufacturers recommendations. (Depending on the heat and humidity, allowances may have to be made in drying and application methods). Afterwards the film thicknesses, gloss levels and general condition of the finish will need to be recorded too.

Photo: Iberia

Several aspects to consider before weight savings are achieved.

Spanish flag carrier Iberia is currently undergoing a much needed rebranding exercise which includes a new and modern livery. The airline reports that by using a new painting system it improves aerodynamics and is more environmentally friendly by reducing fuel consumption. The airline reports that by using a new painting system it improves aerodynamics and is more environmentally friendly by reducing fuel consumption. Sources at Iberia say this new system needs 30% less paint and less downtime. The new paint system used on Iberia aircraft includes the application of a clear varnish called “Clearcoat” with which gives the aircraft a high-gloss “wet look” appearance, while acting as a barrier against atmospheric agents and erosion. Instead of using vinyl stickers for the
technical markings, they are painted and also covered with the varnish.

Aesthetics, process time, and weight savings are real factors that are considered in the application of coating systems to any aircraft. At Iberia, drying time has been reduced and aircraft are only painted once. Previously it needed two or three paint coats. In terms of weight, the new paint used by Iberia only needs one coat instead of two and three previously, which improves aerodynamics and a reduction in weight. For instance, only 380 litres of paint are needed to paint one A321 aircraft with the new Iberia livery.

“An airline’s sensitivity to the overall appearance of the paint system is understandable in that this is what their customers see when they board an airplane,” says Cancilla from PPG. “It is easy for a passenger to judge the maintenance of an airplane simply by the quality of its paint application. The ability to achieve a high quality appearance, however, must be balanced with the time it takes to apply the coating system.”

Cancilla continues: “Basecoat clear coat systems are becoming very popular not only for their longer lasting appearance, but also because they were designed to dry faster than standard, direct gloss systems, reducing the amount of time that the aircraft is out of service.”

Meanwhile, the overall weight of a coating system applied to an aircraft can have a significant impact in the airline’s economics. “Newer basecoat clear coat systems are designed with basecoat colours with high hiding capabilities reducing total film thickness. The resulting fuel savings in operating the aircraft over the longer lifespan of the coating can reach substantial levels,” Cancilla states.

At Fokker Services, currently around 50% of its customers are specifying basecoat/clear coat for their aircraft repaint programmes, while the company reports excellent results bringing achieved from using conventional paint systems. Bulckaert says the use of base coat/clear coat can brings weight saving by the use of a single “direct to metal” primer, colours can be applied in a single application which reduces the film thickness which in turn reduces the weight applied.

“The drying time for the base coat is considerably less than other systems which allows multiple colours to be applied in a shorter timeframe which helps to reduce the process time, the final product applied after the customers livery is the clear coat which gives a uniform high gloss and increasing the aesthetics of the aircraft appearance,” Bulckaert clarifies.

“Weight savings are an emotive subject,” Richardson steps in. “For example, some people will say that basecoat and clear coat (BC/CC) systems will save you weight but this is not an accurate statement and if an airline is expecting a weight saving every time he is using BC/CC, he may be disappointed.”

Richardson explains that BC/CC can save weight but it depends upon the aircraft livery, the colours used, whether or not the aircraft is stripped or rubbed. “Therefore the customer needs to have the full picture of what to expect. Additionally it is no good trying to save weight on the topcoat system but forgetting that you may have multiple primer layers. BC/CC can also reduce process times, which is based around faster drying times and quicker ‘tape times’. However the process is also based on shift patterns and shift patterns need to be considered in quoting reduced turnaround times.”

It is quite clear that clear coat do enhance gloss retention and make aircraft easier to clean. Some concerns can come from the use of different substrates such as composites. “Sometimes the surface preparation of composites at OEM level means that the weave pattern of
Cover story: Paint technologies

the composite can be seen or alternatively an operator can ask for this to be covered by additional application of primer or surfacer. This would require extra downtimes in preparation and can add to the weight of the aircraft coating.” Richardson indicates.

Back in 2011, UK budget carrier easyjet trailed what is called “nano technology coating” on some of its aircraft. The rationale behind the concept is simple, the coating needs to be incredibly thin and also extremely light. This would reduce drag as the plane cruises through the air, increasing fuel efficiency and, ultimately, saving the airline money.

Cancilla from PPG observes that the nano technology coatings publicised over the recent years have not seemed to catch on across the industry yet. “Certainly, it is possible to create surface characteristics at the coating interface with the airstream that will impact drag while in a lab environment. Further, it is possible to perhaps identify some impact of such coatings on limited applications on aircraft. However, the practical issues that an airline faces throughout many flight cycles, such as keeping the aircraft clean and maintaining the integrity of the surface of the coating, have been difficult to prove,” he argues.

There are a number of nano technology coatings available on the market today and Fokker Services in conjunction with its customers trialled two such products, “this is now a number of years ago and we are sure the technology has and will continue to improve and the benefits will be seen,” Bulckaert says. However, he adds that in those trials, Fokker applied a nano technology coating to one of two aircraft which were painted “back to back” and the aircraft (gloss levels, ease of cleaning, aesthetics) were monitored over a three year period – “the results in our opinion were negligible,” Bulckaert reports.

Eirtech Aviation utilises the latest in paint pre-treatments and paint systems. Around 70% of the systems applied are basecoat/clear coat and Eirtech does not view nano technology as “new” anymore. Richardson says direct to metal primers are interesting but where OEM documentation is referenced this sometimes restricts the use of new technologies in MRO.

In terms of future trends Richardson predicts there will be a continued environmental driver and legislation on the paint producers, the users (and the operators when it comes to end of life). “Legislation will probably be the biggest challenge as often the rules are made by people outside of the actual aircraft painting process and do not understand how long it can take to change specifications, carry out testing on alternatives, the impact on the process and so on.”

He also believes OEMs need to be more in tuned with the aftermarket and how to support companies such as aircraft painting companies and MROs in assisting customers’ requirements. Richardson continues: “We see that OEM paperwork (which is sometimes referenced in the aftermarket) calls up products that the OEM have stopped using years ago and blocks the usage in MRO of products currently in use on the production lines. I don’t think this is intentional but it exists and it is often hard to get the OEM to pay attention to this.”

Technological advances in painting are being made constantly, it may be some time before some of these technologies reach the civil aviation industry. Mr Bulckaert believes the current emphasis on more environmentally friendly products will lead to chromate free and water based systems being available in the near future. He reminds that the extensive use of composites in modern aircraft construction brings it challenges, “in particular the removal of paint from these surfaces, but of course as new materials, processes and airframe construction methods are developed so are new and innovative products and technologies coming on line to deal with these challenges.”
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More mobility for the world
Tradewinds Engine Services LLC opened its doors in 1996 dealing primarily with the Pratt & Whitney (P&W) JT3 and JT8 engines for disassembly and selling the parts to the various repair shops who did repair on these engine types.

Through the years, the company evolved with the market and in 2004 disassembled the first new CFM56-7B engine. Tradewinds has disassembled many different engine models over the years that include P&W JT3, JT8, PW4000, GE engines including CF6-50 and CF6-80, IAE V2500 and the CFMI CFM56-3, -5, -7 all series. Lately, the company has focused primarily on the CFM56-5 and CFM56-7 series engines.

“A current trend that a lot of the parts suppliers and leasing companies have been discussing is the effort of the aircraft and engine manufacturers trying to maintain control of the surplus parts business so that they can maintain this business for themselves,” comments Mark Kreisel President and CEO of Tradewinds.

Kreisel adds that they [OEMs] have incorporated different programmes to curtail the use of surplus parts and PMA parts from aftermarket companies such as Tradewinds. “Such programmes include cradle to grave maintenance programmes for the aircraft and engines coming on line for the next generation aircraft, power by the hour programmes and limiting the approvals for repair of the next generation engines for the independent repair facilities including the individual piece parts.” Kreisel explains.

He states that this “control” by the engine manufacturers will be financially beneficial for them but he is convinced that this will be a short term situation. “I believe the costs to the airlines for the purchase and repair of their engines will increase significantly, I do not believe that the manufacturers will be able to keep up with the number of shop visits that they will have to complete along with the amount of parts required for all of these engine shop visits. This will adversely affect the value of engine cores and thus the leasing companies which own approximately 40% of the commercial aircraft worldwide.”

Kreisel says a clear example of this has to do with the B757, saying a B757 with the Rolls Royce (RR) engine had more value at one point than a B757 flying with P&W power. “The cost to repair a RR engine, which RR had control over became so expensive that airlines and leasing companies started to trend to the B757 with the P&W engine because they could save several million dollars per engine on each shop visit. The value of the P&W B757 increased and equalled and eclipsed the value of the RR B757.”

Kreisel argues that this current trend could create a monopoly for the manufacturers where the airlines would only have one outlet for their aircraft and engines for repairs and surplus sales. “It will be interesting to see how the airlines and leasing companies including the OEM’s handle this possibility going forward,” he notes.

Currently, the two aircraft types that appear to have the most interest in the market after a disassembly as Kreisel observes is the B737-800 and the B777. “The interest is in both the aircraft and engine parts from these aircraft. The A320 has lost some of this appeal due to the number of aircraft that have already been disassembled and the number of aircraft currently available for sale.”
In the hot seat…..

_Keith Mwanalushi_ speaks to Peter Somers, CEO Fokker Services.

**AviTrader MRO:** What attracted you to this business?

**Somers:** My father worked 35 years for KLM Royal Dutch Airlines. I practically grew up at Schiphol Amsterdam Airport. After 10 years as an officer in the Royal Netherlands Navy I joined KLM in 1987. Working with people in airlines from many cultures has been my motivation.

**AviTrader MRO:** What does a typical day’s work entail in your job?

**Somers:** When I’m not travelling meeting with customers, partners or vendors I start the day with reading status reports on yesterday’s business, customer visit reports and Fokker Technologies corporate business. Currently I spend quite a bit of time with the execution of a transition programme after the recent restructuring. Part of this transition is an essential accelerated growth of our non-Fokker business which warrants my personal involvement.

**AviTrader MRO:** What is the most challenging part of your job?

**Somers:** Transformation of this unique company away from the relatively protected environment as (successor of) the OEM into a much more competitive environment. I am confident that this will succeed because of the intrinsic knowledge that resides within our organization, the drive of our staff and the global infrastructure to support our ambitions.

**AviTrader MRO:** Fokker Services combines OEM (design) knowledge and independent after-sales MRO support. What are the advantages of being in this unique position?

**Somers:** After ceasing the production of aircraft in 1996 the aftermarket support became our primary business with almost 100% focus on the Fokker product. Today less than 50% of our business is related to the Fokker product. It has been an interesting learning curve. The biggest advantage has been that we have knowledge of a complete aircraft, its systems and components and how it all fits together. With this knowledge we constantly focus on solutions that matter to our customers: maximize aircraft availability and enhance the asset value of the aircraft. We have the capabilities to integrate economical solutions in an aircraft and certify it. A good example is our Electronic Flight Bag (EFB) installation for iPad® (Airbus, Boeing, Bombardier and Fokker aircraft). Another example is our ability to re-design parts (or the production methodology) to install a new supply chain when the original part becomes obsolete. In summary, with our OEM knowledge we can do anything that is needed to enhance the operational and economical life of an aircraft.

**AviTrader MRO:** What does your FLYFokker programme entail?

**Somers:** FLYFokker is a full-service lifecycle support programme for the Fokker fleet. The programme consists of cost-effective aircraft and service solutions for start-up, mature and phase-out operators.

FLYFokker comprises a package of four solutions for each phase of the operation of an aircraft: Take Off, Take Care, Take Over and Take Next. Start-up operators can Take Off with their operation in six weeks instead of typically six months. For mature Fokker operators Take Care is a complete solution to increase Technical Dispatch Reliability (TDR), reduce Direct Operating Cost (DOC) and improve passenger comfort. Operators moving to other aircraft types are supported by Fokker Services in the Take Over of the continued competitive operation of their Fokker fleet. The fourth solution is a package for the mean-and-lean transfer of aircraft to the next operator, entitled Take Next.

The programme was developed by Fokker Services together with key customers and strategic partners and launched in 2009. Since then many operators made a successful Take Off or Take Care with Fokker aircraft. Examples are KLM Cityhopper, Portugal Airlines, Austrian Airlines, Air Panama, Transnusa, Skyward, Peru Navy, Aero Mongolia, Aero Transports, Air Astana, CAA, Virgin, Alliance Airlines, Helvetic Airways and IRS.

**AviTrader MRO:** What is next on the horizon at Fokker Services?

**Somers:** Too much! But if I have to name one innovation it would be our development of the ‘Panoramic Window’ in an exploratory collaboration with Boeing Business Jets (BBJ). The “Panoramic Window” will be the first of its kind to be developed and certified for the business aviation community and will be offered to Boeing Business Jet owners and operators. The ‘Panoramic Window’ sets a new standard for personalizing and designing VIP aircraft interiors. The ‘Panoramic Window’ measures 54.5 inches wide, slightly larger than three window bays and will offer a height of 19.5 inches, approximately 40% taller than the existing windows. It is being designed for the BBJ, based on the 737-700 NG model aircraft, and would also be available for the upcoming BBJ MAX. This innovation re-confirms Fokker Services position as a creative design and completions organization developing products that enhance the customer experience utilizing its unique position of OEM knowledge and aftermarket experience.
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The Airbus A330-300 is a twin-engine, high capacity wide-body commercial aircraft, designed to transport between 266 and 410 passengers, depending on operator requirements. The initial model of the A330 family, the A330-300 prototype made its first flight in November 1992, entering service with Air Inter in January 1994. The A330-300 has subsequently been joined by the A330-200. Featuring a shortened fuselage and increased fuel capacity, the A330-200 carries between 219 and 303 passengers, again, dependent on differing operator requirements, over distances of up to 6,750 nm. The A330-200 prototype flew for the first time in August 1997, and entered service with Canada 3000 in May 1998. Both A330 variants are popular with scheduled flag carrier operators and charter airlines, and remain in production today.

**Line maintenance**

The line checks are made up of transit, pre-flight, daily and weekly checks, and the content and man-hour (MH) requirements increase in that same order, transit being the smallest and weekly being the largest check. The transit and pre-flight checks are mainly visual inspection, occasionally there are additional items and defect rectifications. Any major findings, if deferrable, are rectified as part of the daily or weekly check. Overall transit and pre-flight checks consume 2.0 to 3.0 MH per check. On average, the A330 will perform two to three flights per day, requiring one to two transit checks, and two to three pre-flight checks.

Daily checks are usually performed by line mechanics. The routine and non-routine tasks combined can consume between 4.0 and 6.0 MH. Most of the weekly checks’ task are similar in nature to the daily checks’ ones, but for deferred tasks and additional defect rectification, therefore in total 10.0 to 12.0 MH will be required. While the weekly check may be performed by two line mechanics, only one line mechanic may be sufficient for the daily check.

For long-haul operations, the aircraft will require 350 transit, 750 pre-flight, 350 daily and 50 weekly checks. The total cost of labour and material will be between $368,000 and $548,000 depending on the age of the aircraft, equalling to $82 and $122 per FH based on an annual utilisation of 4,500 FH and a sector length of 6.0 FH.

**Minor airframe maintenance**

The A-Checks follow a regime of routine inspections, each inspection is made up of many task groups. These tasks groups have an interval of 800 FH, however the actual interval will be 600 FH. The A4-Check for example will come due at 2,400 FH and includes 1A, 2A and 4A task groups.

The inspections will result in findings which are over and above the routine tasks. The non-routine element builds up as the aircraft ages and can double the MH consumption. In addition there will be deferred items, minor modifications, cleaning, component changes and additional specific requests from customer. Combined these items will use 300 to 650 MH depending on the size of the check.

Total cost of one A-Check cycle will be in the region of $174,000 to $245,000, (incl. material) depending on the age of the aircraft. Amortised over the 2,400 FH (A1 to A4-Check), minor airframe maintenance costs between $73 and $102 per FH.

**Major airframe maintenance**

Similar to A-Checks, the C-Checks are made up of task groups, 1C, 2C, 4C and 8C. These have an interval of 18 months or 8,500 FH whichever comes first. Most operators would perform a base check every 14-16 months with the MPD interval of 18 months. This translates into a 6,000 FH interval before a base check is performed. The cycle of base checks would therefore be completed in 48,000 FH.
The C-Check cycle starts with C1 and is completed at the C8-Check, spanning over 10 to 12 years. The C4/6 Year and C8/12 Year Checks are the heaviest as they include more task groups and structural checks being performed at the same time. All other checks are light and in some cases only have 1C tasks.

The total costs for the eight base checks can reach US$8.5-9.5 million for aircraft used on long-haul operations over an interval of 48,000FH, so the cost per FH will be between $177 and $197 depending on the age of the aircraft.

### C-Check Maintenance

<table>
<thead>
<tr>
<th>Check</th>
<th>Task Groups</th>
<th>Check Interval - MPD</th>
<th>Check Interval - Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>1C</td>
<td>18   Months</td>
<td>16   Hours</td>
</tr>
<tr>
<td>C2</td>
<td>1C + 2C</td>
<td>36   Months</td>
<td>32   Hours</td>
</tr>
<tr>
<td>C3</td>
<td>1C</td>
<td>54   Months</td>
<td>48   Hours</td>
</tr>
<tr>
<td>C4</td>
<td>1C + 2C + 4C + S1</td>
<td>72   Months</td>
<td>64   Hours</td>
</tr>
<tr>
<td>C5</td>
<td>1C</td>
<td>90   Months</td>
<td>80   Hours</td>
</tr>
<tr>
<td>C6</td>
<td>1C + 2C</td>
<td>108  Months</td>
<td>96   Hours</td>
</tr>
<tr>
<td>C7</td>
<td>1C</td>
<td>126  Months</td>
<td>112  Hours</td>
</tr>
<tr>
<td>C8</td>
<td>1C + 2C + 4C + 8C + S1 + S2</td>
<td>144  Months</td>
<td>128  Hours</td>
</tr>
</tbody>
</table>

**Heavy component maintenance**

#### Landing gear

The landing gear has an overhaul interval of 10 years, so based on an aircraft accumulating 750FC per annum, the likely interval will be 7,500FC. The current overhaul and exchange fee is $1,100,000, which equates to $147 per FC and $24 per FH.

**APU**

The A330-200/300 aircraft use the Honeywell GTCP331-350C APU model. MTBOs vary and depend on airline policy and utilisation trend. Most airlines have been able to achieve 8,000 MTBO in recent years. A typical average is 2 APUH for every single FC. Overhaul and exchange fee is about $360,000. This gives APUH rate of $45, which equates to $15 per FH.

#### Powerplants and engine LLPs

The A330 family of aircraft is powered by three engine types, the CF6-80E1, the Trent 700 and the PW4000-100. As with most high bypass engines, reasons for removal tend to be EGT margin deterioration rather than LLP expiry, except for the engines that are used on short sector lengths of 4:0:1.

**General Electric CF6-80E1 engine**

First shop visits are performed around 4,500FC, and thereafter the mean time between overhauls (MTBO) drops down to between 3,000FC and 3,500FC. The drop is due to a decrease in EGT margin parameter and as a result of LLP expiry at mature shop visits. A shop visit that includes a performance restoration and minor LLP repair will cost in the region of $4.5 to $4.7 million. Assuming a mature interval of 3,500FC interval on six hour sectors, the cost per flight hour is equal to $214 - $224 per engine.

LLPs will not be replaced until the 4th shop visit which can cost $4.1 million in LLP parts alone assuming new LLPs are fitted. The LLP reserve for the CF6-80E1 is around $85 per FH per engine.

**Rolls-Royce Trent 700 engine**

For the Trent 700, the shop visit outline and MTBOs are similar to those of the CF6-80E1 engine. First shop visits are performed around 4,000FC to 4,500FC and thereafter mature intervals fall between 3,000FC and 3,500FC. The first shop visit, including a performance restoration and minor LLP repair, will cost in the region of $5.8 million. Mature engine shop visit costs are in the region of $7.0 to $7.2 million. Assuming a mature interval of 3,500FC on six hour sectors, the cost per flight hour is equal to $333 - $343 per engine.

Mature shop visits require LLP replacements due to lower Chapter 5 limits. The LLP reserve for the Trent 700 is around $100 per FH per engine.

**Pratt & Whitney PW4000-100 engine**

Like many Pratt & Whitney engines, the PW4000-100 LLP limits are harmonised making maintenance planning around LLP removals more simplified. First shop visits are performed around 3,500FC although the spread is around 3,000 – 4,000 depending on the flight hour to flight cycle ratio. The first shop visit again tends to be a performance or core restoration with some high pressure turbine work. A mature engine shop visit, including a full overhaul, will cost around $5.5 million. Mature intervals fall around 2,500 and 3,000 FC. This equates to $305 - $366 per FH per engine.

Most LLP parts have a limit of 15,000FC, however there are some parts in the high pressure turbine that may be replaced around 12,000FC. A full set of rotating LLPs costs in excess of $7 million. The LLP reserve for the PW4000-100 is around $80 per FH per engine.

### Summary – Costs per FH

<table>
<thead>
<tr>
<th>Maintenance Items</th>
<th>CF6-80E1</th>
<th>Trent 700</th>
<th>PW4168/4170</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine</td>
<td>$428 - $448</td>
<td>$666 - $686</td>
<td>$610 - $732</td>
</tr>
<tr>
<td>APU</td>
<td>$15 - $18</td>
<td>$24 - $29</td>
<td>$24 - $29</td>
</tr>
<tr>
<td>Landing Gear</td>
<td>$165 - $175</td>
<td>$205 - $215</td>
<td>$155 - $165</td>
</tr>
<tr>
<td>C-Checks</td>
<td>$180 - $197</td>
<td>$205 - $215</td>
<td>$155 - $165</td>
</tr>
<tr>
<td>A-Checks</td>
<td>$73 - $102</td>
<td>$73 - $102</td>
<td>$73 - $102</td>
</tr>
<tr>
<td>Line</td>
<td>$82 - $122</td>
<td>$82 - $122</td>
<td>$82 - $122</td>
</tr>
<tr>
<td>Total</td>
<td>$967 - $1,091</td>
<td>$1,245 - $1,369</td>
<td>$1,139 - $1,287</td>
</tr>
</tbody>
</table>

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Guessing future aircraft value: Optimistic, pessimistic and realistic scenarios

With USD 1.5 trillion worth of combined Boeing/Airbus backlog, airlines, leasing companies and other aircraft market players keep placing orders for new aircraft endeavouring to harvest the 4-5% annual growth of the passenger traffic. However, it is very important that those investors who wish to explore the flourishing aircraft market can clearly see all the industry’s pitfalls. Otherwise, their new investment will depreciate faster than the speed of light.

The residual value of an aircraft depreciates by 4-9% each year or two (depending on the density of aircraft operations and remaining resources) under the usual market conditions. The aircraft value is being pushed down by both natural factors (resource exhaustion and physical condition of the aircraft) and market trends (seasonal demand shifts, introduction of new technologies (upgrades) and aircraft types, etc.).

“First and foremost, there is no such thing in aviation as an old aircraft. With proper technical support a 20 year-old aircraft can be as safe as a newly built one and it can be a reasonable option to operate it from a commercial point of view. Take for example the Air Force One Boeing 747 – it’s almost 30 years old, and no one questions its reliability,” shares Tadas Goberis, the CEO of AviaAM Leasing. “Thus, in order to understand an aircraft’s residual value, one should start the appraisal from elsewhere, i.e. aircraft’s technical condition.”

Aircraft condition
The value of an aircraft is basically determined based on the condition of its airframe, engines, avionics, separate components, etc. The contribution of each of these components to the overall value of an aircraft depends on their resources left. For instance, engines contribute only approx. 20-25% to the price of a brand new aircraft. But 20 years later, the situation makes a 180 degrees’ turn as the remaining resources in engines are usually the only valuable part of an aircraft.

However, in order to determine the exact condition and resource status of an airplane, one requires maintaining a thorough understanding of the aircraft’s technical state. Thus, during the appraisal, the main attention should be paid to the detailed history of heavy structural repairs, life limited parts (LLP) replacement, landing gear overhauls and auxiliary power unit (APU) performance restorations.

“If we are talking about a mid-age aircraft, the condition of the logbooks and other documents also plays a crucial role as they may hide certain evidence of improper maintenance or utilization of non-approved parts. Therefore, one must accurately examine all those 5-to-10 pallet of documents which come together with an aircraft – this is the starting point for appraising the real condition of an aircraft,” comments Tomas Sidlauskas, Senior Project Manager at AviaAM Leasing.

Market penetration
Aircraft which are popular and enjoy a large geographical spread tend to have better secondary market prospects and, in turn, exhibit higher liquidity and lower risk profiles, which affect their value. Today, Airbus A320 family and Boeing 737 NG aircraft keep dominating the narrow-body aircraft market with approx. 62% share, according to Avitas. The average market value of mid-life aircraft of such type (excluding Boeing 737-800) is approx. USD 20-25 million, and it tends to remain stable in a short-to-middle perspective. As concerns the wide-body segment, Boeing 777-300 and Airbus A330-300 maintain rather firm positions at the top of the popularity list, thus being a stable asset to their owners.

Moreover, considering short-term perspectives, the demand for (and thus the value of) such aircraft as Airbus A320, A330-300, Boeing 737-700/900 and, in particular, Boeing 777-300 shouldn’t be subject to any major disruptions in a five-years’ time. However, the demand alone doesn’t guarantee a stable price for one’s asset since you are not the only one offering the product.

“A 10-year old aircraft is worth approximately half of its initial price. However, as the major aircraft manufacturers are continuously increasing their production rates, the real market value of one’s aircraft may even go down, since the demand may further shift from the second-hand to new aircraft. Then there are also the production cycles to consider;” says Tomas Sidlauskas. “At the same time, there are certain airplane models which are no longer manufactured yet still operated across the globe (e.g. Boeing 737 CL). With lower prices and leasing rates, such models may also find their niche, particularly in developing countries and within less demanding operators.”

Secondary market prospects
Whether one invests in a newly manufactured Boeing or a 5-7 years’ old Airbus, still sooner or later the owner will face the issue of further asset utilization after the first leasing cycle. With this in mind, a liquid aircraft, which is characteristic of a combination of low direct operating and capital costs, typically has a chance within the second and third-tier airlines, such as start-ups and lower credit-rate carriers. However, the purchase transactions are being actively replaced by leasing deals as a more preferable and flexible means of aircraft ownership within the airline industry.

Aviation value cycle
The most recent financial downturn has once again proven that there’s a tight interconnection between the aviation industry and the state of the global economy. However, the market still tends to develop according to its own value cycles. Considering the history of aircraft orders and deliveries, some specialists maintain the opinion that aviation develops in accordance with an approx. 10-15 years cycle. The previous peak for aircraft orders (demand) was observed in 2005-2006 followed by the global financial crisis.

“During the 2008-2011 period the market observed a substantial drop in the demand for used aircraft as carriers pressured by low profits were forced to opt for newer aircraft equipped with more fuel-efficient systems. Moreover, in the aftermath of the crisis we are now seeing how the low-cost business principles are actually spreading through the entire airline industry and narrowing the gap between legacy and no-frill airlines,” adds Goberis. “But in either case, the market as we see it today is expanding and it’s vital not to miss out on the opening opportunities. In business terms, now investors have the chance to close long-term lease agreements with airlines while the values and rates are on the rise. Once the market returns to the descending part of its life cycle, such investors will still enjoy high ROIs despite the downturn.”

“In the meantime, despite all the value cycles, economic downturns and demand forecasts, when assessing a value of any asset it is very important to use realistic, pessimistic and optimistic approaches,” explains Tomas Sidlauskas, Senior Project Manager at AviaAM Leasing. “Although this rule is well known to everyone in the world of business, somehow, it is often being forgotten. By exploring all three approaches, the evaluation of an aircraft and the forecast of an expected value are becoming less vulnerable to ‘predictable contingencies’. After all, when you thoroughly understand your market flows and have all the data ready beforehand, it is not that hard to prepare yourself for a variety of scenarios and thus secure your asset’s residual value as much as possible.”

Source: AviaAM Leasing
During its meeting on September 15th, the Supervisory Board of Lufthansa Technik appointed Dr. Johannes Bussmann the new Chairman of the Executive Board for the company. Dr. Bussmann will take over the position from August Wilhelm Henningsen on April 1st, 2015, with Mr. Henningsen due to retire in the coming year.

Richard Nevill has been appointed the Vice President of Aircelle’s Customer Services Division, effective September 1st. Nevill brings proven expertise in customer support and services, gaining his experience during a 30-year aerospace industry career. “Richard will lead Aircelle’s after-market development, along with the transformation of customer services activities that are essential to our continued growth worldwide,” said Aircelle Chairman and CEO Martin Sion. Nevill comes to Aircelle from AgustaWestland Helicopters, where he was responsible for the rotorcraft producer’s customer support and services activity since 2010. He initiated the process of global integration in this rapidly-expanding business, covering a comprehensive suite of services and partnered solutions through a network of subsidiaries, joint ventures and distributors.

The International Air Transport Association (IATA) announced the appointment of Rodolfo “Rudy” Quevedo as Director of Safety. On September 2nd, 2014, Quevedo joined IATA’s Safety and Flight Operations team and will be based in Montreal. He will be responsible for Cabin Safety, Safety Management Systems (SMS), and Global Aviation Data Management (GADM). Quevedo comes to IATA from the Flight Safety Foundation (FSF) where he served as Director, Global Programs, managing FSF’s technical and global initiatives in collaboration with the International Civil Aviation Organization (ICAO). Prior to joining FSF in 2011, he was Director of Safety for North American Airlines, a position he held for four years. He began his aviation career at Eastern Airlines in 1980.

BAE Systems announced that Martin Sutherland, Managing Director, BAE Systems Applied Intelligence, will leave the Company on September 30th, to take up a position as Chief Executive, De La Rue plc. Kevin Taylor, Group Strategy Director, responsible for Executive Committee oversight of the Applied Intelligence business, will assume the role of Managing Director, Applied Intelligence on an interim basis with immediate effect, to oversee its continued growth and strategic development.

Boeing reported that Sir Roger Bone, president of Boeing U.K. and Ireland, will retire at the end of September with Sir Michael Arthur to assume the post from October 1st. Arthur will work to expand further Boeing’s local presence and pursue new growth opportunities as the senior Boeing representative in the U.K. and Ireland. He will join the company on Sept. 1st, after three decades of international service with the British government and three years as a member of a UK-based business consultancy.

**FAA**

**FAA streamlines aircraft certification process**

As part of the Federal Aviation Administration’s (FAA) ongoing efforts to improve its responsiveness to the U.S. aviation industry as it certifies new products and operators, the agency took an important step today to streamline the aircraft certification process to help the industry get products to market faster and retain competitiveness. The FAA is replacing project sequencing with a new process to prioritize all U.S. aircraft certification projects. While the new process continues to use a project’s safety benefit and complexity to prioritize and allocate resources, it now offers applicants increased predictability and a commitment to a response time for the review of the applicant’s compliance data. The time it takes for certification depends on the complexity of the project and the experience of the company. Once an application package has been accepted, applicants will be able to initiate projects without delay; particularly if they have an Organization Designation Authorization (PDF) or are using FAA approved individual delegated engineering representatives. This new process responds to the recommendations from the Aircraft Certification Process Review and Reform Aviation Rulemaking Committee formed in accordance with Section 312 of the FAA Modernization and Reform Act of 2012. Due to limited resources, the FAA began sequencing certification projects in 2005. The agency was unable to tell applicants when a project would start which often resulted in long project delays until resources became available. Last year, the FAA certificated approximately 10,000 aviation products. There is currently no backlog or queue for certification projects.