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MRO

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NORTH AMERICA FOCUS - A CHANGING MRO LANDSCAPE

A large blue and white aircraft nose is shown in a hangar. A worker in a dark shirt and jeans is standing on a yellow ladder, working on the side of the fuselage. The aircraft has a white base paint with a blue upper section. The hangar interior is visible in the background with overhead lights.

Delta TechOps
Profile

LATEST MRO NEWS FROM AROUND THE WORLD • IBA'S VIEW ON MERGERS AND ACQUISITIONS
PEOPLE ON THE MOVE - LATEST APPOINTMENTS

IBA

DREAMLINERS' NIGHTMARES

Welcome to the January 2013 edition of MRO!

Before the new year had properly got underway, the aviation world was rocked by the news that, one by one, a series of Dreamliner 787s had begun to malfunction.

The issue first cropped up on 4 December last year, when a United Airlines flight had to make an emergency landing in New Orleans due to electrical problems.

Next, a Japan Airlines Dreamliner suffered an electrical fire shortly after landing in Boston on 7 January, while another JAL flight was cancelled after a fuel spill of 40 gallons the following day. Cracked windows, more battery problems and issues with brakes followed.

As we go to press, all 50 Dreamliners in service have been grounded and the potential impact of the problems is fast dawning on the industry. Boeing may face an extremely turbulent 2013,

as it struggles to reassure an anxious travelling public and a sceptical industry, which has already waited three years longer for the planes than it bargained for.

As one commentator asked: "Couldn't Boeing's engineers and safety inspectors have spent those years ensuring the plane was ready to enter service?" It's a fair enough question, given the many millions of dollars that the planes cost (upwards of \$100 million) and the inconvenience that will now be suffered by the airlines and their tens of thousands of monthly passengers. JAL's executives have already had to bow their heads in shame and embarrassment.

The MRO sector will experience its own share of the impact from the crisis. All 50 Dreamliners are currently under a form of 'repair', either actual (where a fault has been detected) or preventative. The quicker these real and theoretical faults are resolved and the entire fleet is once more airborne, the better for the MRO industry's

reputation. If this crisis drags on from weeks into months, the travelling public will suspect that international standards of aviation maintenance and repair are not what they should be. A brand new aircraft should work first time!

Let's hope that Boeing's travails are nothing more than the 'teething problems' that they assure us every ambitious new model experiences.

Have a very good 2013 and thanks for reading.

David Nicholson

Editor

MRO



The North America MRO market is worth an estimated \$15bn.

Photo - TIMCO

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Opinion

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A composite image featuring a white commercial airplane in flight, viewed from the front. The background is split vertically: the left side shows a bright, blue sky with white clouds over a green, rolling landscape; the right side shows a dark night sky with a city skyline illuminated by lights. The airplane's two engines are visible on the wings.

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Lockheed Martin Canada to acquire engine maintenance, repair and overhaul assets of Aveos Fleet Performance

Lockheed Martin Canada, a wholly owned subsidiary of Lockheed Martin Corporation (LMT), has entered into an agreement to purchase certain assets of the engine maintenance, repair and overhaul (MRO) business of Aveos Fleet Performance, located in Montreal, Canada. Terms of the agreement were not disclosed and are not material to Lockheed Martin. The closing of the transaction is subject to customary conditions. The engine MRO assets provide capabilities to perform a complete range of services on the CF34 and CFM56 engine families, which include engines that power the regional Embraer and Canadian RJ jets and the Airbus 320 family, respectively. The facility will be named Kelly Aviation Center Montreal, a Lockheed Martin Canada company, and become part of Lockheed Martin Aeronautics' engine MRO line of business, which includes Kelly Aviation Center, a Lockheed Martin affiliate based in San Antonio, Texas.

Fokker Elmo successfully started manufacturing for new GKN Aerospace contract

Fokker Elmo B.V., part of Fokker Technologies, has successfully started manufacturing Electrical Wiring harnesses for engine nacelles made at GKN Aerospace Cowes, for a range of military transport and commercial aircraft as



Kelly Aviation test cell
Photo: Kelly Aviation

well as business and private jets. Fokker Elmo is already supplying GKN Aerospace with Airbus A320 wing wiring. The new contract confirms Fokker Elmo's position as a strategic

Electrical Wiring Interconnection

System (EWIS) supplier to GKN Aerospace. After an initial startup of manufacturing at Fokker Elmo's facilities in The Netherlands, serial production has successfully been transferred to the Fokker Elmo subsidiaries in Turkey for the Defense programs and in China for the Civil programs.

THAI Smile to become first A320 commercial operator to use Airbus' Flight Hour Services

THAI Smile, a subsidiary of THAI Airways, will become the first Airbus A320 commercial operator to benefit from Airbus' Flight Hour Services Tailored Support Package (FHS-TSP)



Smile overnight in Bangkok

Photo: AirTeamImages

following a contract signed between THAI Airways International and Airbus. The contract, which will run for 15 years, provides an extensive scope of A320 line replaceable units (LRUs) and spare parts availability, LRUs repairs, logistics services, tools availability, APU and nacelle services. An on-site Airbus team will assist in daily spares management ensuring THAI Smile's aircraft technical dispatch.

Boeing rolls out first 777 at increased production rate

Boeing has rolled out the first 777 to be built at the increased production rate of 8.3 per month, or 100 airplanes per year. The airplane is a 777 Freighter that will be delivered in February to Korean Air. The production increase began in October when the first airplane parts entered the Everett factory. Planning for the increased rate has been in work for almost a year.

SmartStem Wireless Tire Pressure System certified for Bombardier Learjet 40 and 45 aircraft

Crane Aerospace & Electronics announced the Federal Aviation Administration (FAA) has awarded a Supplemental Type Certificate (STC) for Crane's SmartStem Wireless Tire Pressure System for Learjet 40 and 45 aircraft. The certification for the Learjet 40/45 system adds to the growing list of SmartStem Tire Pressure Sensors already certified for use on a variety of other business jets including Cessna Citation Sovereign, Citation X, Dassault Falcon 50, and Bombardier Learjet 60. In addition, SmartStem is certified on several commercial aircraft including the Boeing 777, 787 and Bombardier Q-Series models. Crane is in the

process of certifying SmartStem on additional business, regional, and large commercial aircraft. To fit an aircraft with SmartStem technology, the existing tire inflation valve stem is simply replaced with a SmartStem tire pressure sensor, which, in addition to serving as the inflation valve, contains special electronics. SmartStem sensors communicate tire pressure, temperature and other stored information wirelessly to a Handheld Reader, making tire pressure measurement simple and quick while at the same time creating unique data records which can be used as part of a tire management program. In addition, since this information is communicated wirelessly and does not require the removal of the valve cap, no gas is lost during routine tire pressure checks.

GE Aviation forms joint venture with SeaCast Operation for jet engine components

GE Aviation and SeaCast, Inc. have established a 50/50 joint venture, Montana Precision Products, to produce jet engine components at SeaCast's facility in Butte, Montana. SeaCast, which has its headquarters in Marysville, Washington, produces castings and specialty components. The joint venture in Butte will produce tubes, ducts and small structural castings for GE jet engines. The joint venture will enhance GE Aviation's global supply chain as its engine production rates continue to rise. SeaCast's Butte operation has supplied GE Aviation for several years, producing tubes and ducts for such engines as the popular GE90 and GENx high-thrust models for large commercial jetliners. Both GE Aviation and SeaCast will invest in the Butte facility in order to handle higher volume. The Butte operation currently

has about 70 employees, and is expected to grow over the next four years.

Spirit AeroSystems completes 100th Boeing 787 composite forward fuselage section

Spirit AeroSystems celebrated completion of the 100th Boeing 787 composite forward fuselage section. This section will be shipped to Boeing's final assembly facility in Charleston, S.C., early next year. Spirit is responsible for the forward fuselage section, pylon, and wing leading edge.

Aircelle builds first components for its engine nacelles to equip Airbus A320neo jetliners



Ceremony at Spirit AeroSystems

Photo: Spirit AeroSystems

The production of Aircelle (Safran) engine nacelles for Airbus A320neo jetliners has become a reality with the manufacture of initial full-scale thrust reverser components using concurrent engineering, rapid prototyping and lean manufacturing techniques. Aircelle's first-build components include the thrust reverser's forward frame and structural beams, its inner fixed structure and aft extension, along with the aft core cowl. They represent a major percentage of the thrust reverser's structural framework – which becomes an important portion of the overall engine nacelle. The elements were produced with composite and metallic materials, applying the same manufacturing process that Aircelle will employ in its series production of the A320neo nacelles – including automated composite lay-up. They subsequently were assembled at the company's Le Havre, France facility, enabling a one-to-one assessment of their integration, along with a confirmation of the ergonomic

aspects for production line build-up.

AAR receives FAA approval for 767-300 interior modifications

AAR has received design approval from the U.S. Federal Aviation Administration (FAA) to perform custom interior modifications for Boeing 767-300 aircraft operated by a major U.S. based international airline. AAR Engineering Services' design modification increases the aircraft's passenger count and includes the installation of flatbed seats, new in-flight entertainment systems and a lower lobe crew rest, as well as the replacement of galleys. AAR managed the processes to obtain



Aircelle's first-build components for A320neo thrust reverser assembled at Le Havre facility Photo: Aircelle

operations last month, and sets the stage for the Company's next phase of growth in Duluth. AAR is working to fill additional openings for 60 jobs at the facility. At full capacity, the formerly vacant 188-thousand-ft² facility will employ as many as 225.

Air Tahiti Nui and Lufthansa Technik sign long-term engine repair and overhaul contract

Air Tahiti Nui, the international airline of Tahiti, and Lufthansa Technik have signed a long-term engine repair and overhaul contract for the 21 CFM56-5C engines of Air Tahiti Nui's A340-300 fleet. The contract runs over a period of eight years and also comprises additional engine related services like component maintenance, logistics including transportation, pooling and lease support, engine maintenance management, airline support team (AST), advanced work-scoping and spare engine coverage. The services will be delivered via the global Lufthansa Technik network. Spare parts will come from Frankfurt and Hamburg, overhaul and repair work will be executed at the Lufthansa Technik sites in Hamburg.

U.S. Coast Guard selects Honeywell's vibration monitoring and diagnostic system

Honeywell has been awarded a \$4.8m contract to install health and usage monitoring systems (HUMS) onboard the entire fleet of U.S. Coast Guard MH-60T helicopters. The Coast Guard will use 42 Zing HUMS 1239 aircraft kits and 24 ground support kits, all of which will be delivered before the end of 2012, to monitor critical drivetrain components such as the

the FAA Supplemental Type Certificate (STC) on the customer's behalf and provided custom modification kits produced at AAR Aircraft Services in Indianapolis. AAR Engineering Services offered additional value by mitigating risks associated with design, scheduling and implementation of the STC, acting as a single point of contact overseeing integrated engineering, program management and supply chain management services.

AAR's Duluth aircraft maintenance facility is up and running

With AAR's Duluth Maintenance, Repair and Overhaul (MRO) facility now operational, the Company announced that it completed and delivered its first aircraft on December 14th. AAR has also created more than 100 jobs in Duluth to date. This success marks a major milestone for AAR's newest aircraft maintenance facility, which commenced



Air Tahiti Nui aircraft after landing in Los Angeles

Photo:AirTeamImages

helicopters' rotor shafts, making sure that the aircraft is ready to fly at all times. The data collected by the system is easily downloadable into a user-friendly ground station that allows operators to quickly see the status of all selected components instantly, without the costs associated with traditional contractor support.

ExecuJet and Rolls-Royce sign engine service agreement

ExecuJet and Rolls-Royce have signed an engine service agreement that authorises the ExecuJet Service Center in Dubai, UAE to perform engine line maintenance, removals and installations on Rolls-Royce BR710 and AE 3007A engines. The BR710 engine is installed on the Bombardier Global Express, Global Express XRS, Global 5000 and Global 6000 aircraft and the AE 3007A on Embraer's Legacy 600 and 650 aircraft. ExecuJet Dubai will be the first Authorised Service Centre in the Rolls-Royce network to work across multiple product types.

Sabena technics selected for VIP cabin modification of two A320 and one A318

Sabena technics has contracted a cabin modification project for two Airbus A320 and one Airbus A318 with an undisclosed Middle

East VIP operator. Within the scope of this contract, Sabena technics is carrying out VIP cabin modification as well as SATCOM systems installation. The work is being performed by Sabena technics' expert team at its VIP completion center in Bordeaux, France and includes the installation of two SBB SATCOM systems with the aggregation of up to four SBB channels in order to ensure full connectivity and maximum inflight bandwidth. This solution is a first for A320 aircraft. On the Airbus A318 aircraft, Sabena technics will also be carrying out the installation of Live TV as well as of a humidifier, both of which have never been placed on this type of aircraft.

Sabena technics gets maintenance and VIP completion capabilities on A380

Sabena technics has received A380 base maintenance rating from the EASA. The new capability applies to its Bordeaux, France facility that now holds base maintenance rating on every flying Airbus aircraft (including Beluga) as a result. The new rating will also allow Sabena technics to perform structural



Sabena technics hangar

Photo: Sabena technics

parts repairs in the field or in its workshops for worldwide operators, and to perform aircraft modifications and upgrades.

Lufthansa Technik completes BBJ 2 for Freestream Aircraft

Lufthansa Technik has started the VIP cabin completion of a Boeing Business Jet (BBJ) 2 for Freestream Aircraft. The ultra-modern interior has been designed by renowned designer Marc Newson and his London-based Aviation Design Studio MNAerospace Ltd. The hand-over of the aircraft is scheduled for mid of 2013. Lufthansa Technik will install the latest generation of its successful nice HD cabin management and

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Technicians working on interior of a VIP aircraft Photo: Lufthansa Technik

in-flight entertainment system on board. nice HD will offer Live-TV, GSM, high-speed internet access and video-on-demand. The technical experts of Lufthansa Technik are developing a software which enables the future customer to control the complete nice® HD system with his personal smart phone device.

Lufthansa Technik keeps high level of workload in VIP-completion business

Lufthansa Technik's "VIP & Executive Jet Solutions" Division is in the final preparations for the second VIP Boeing 747-8 completion in Hamburg. The aircraft of an undisclosed customer is expected to arrive before end of December. The VIP-business experts of Lufthansa Technik are currently preparing the installation of a unique cabin interior and a state-of-the-art in-flight entertainment & cabin management system. The first VIP 747-8 is already undergoing a completion at Lufthansa Technik in Hamburg since its arrival at the end of August. The contract for the second 747-8 was signed during the Dubai Airshow in 2011. With the arrival of this aircraft Lufthansa

Technik will work on three widebody and one narrowbody aircraft completion in parallel in Hamburg. Additionally, another narrowbody-line is currently used for a major refurbishment project by Lufthansa Technik's VIP-maintenance business unit.

H+S Aviation expands CT7 ECMP overhaul agreement with GE Aviation

H+S Aviation expanded its CT7 Engine Overhaul Subcontract Agreement (EOSA) with GE Aviation to include all CT7-5A and CT7-9B ECMP (Engine Care Maintenance Program) commercial engine shop visits beginning January 1, 2013. As part of this agreement, GE will continue to manage CT7 ECMP contracts and supply OEM parts to H+S, who will perform all labor on engine shop visits. In 2011, CT7-5A and -9B engines totaled 170 shop visits, accounting for more than 80 per cent of all CT7 shop visits, according to H+S Aviation.

ExecuJet Middle East named GE authorized service center for CF34-3 engines

GE Aviation named ExecuJet Middle East as an authorized service center for GE's CF34-3 engines that power the Bombardier Challenger series. Under this agreement, ExecuJet Middle East can perform line maintenance inspections and routine installed engine maintenance, including removal and replacement of engines and engine components. This authorization also allows ExecuJet Middle East to provide OnPoint solution and GE new engine warranty support.

B/E Aerospace receives four major aircraft interior programs

B/E Aerospace has been awarded four major aircraft cabin interior programs. The first of these is a lie-flat business class seating program to outfit a major international airline's new-buy Boeing 787 fleet. In addition, B/E Aerospace will provide retrofit LED lighting for this same airline's Boeing 737, 767 and 777 aircraft. The second is a full cabin interior retrofit program to outfit a major global airline's long haul aircraft with lie-flat business class seating, Pinnacle main cabin seating, and LED lighting.

The third award includes a business class seating program, a Pinnacle main cabin seating program and a comprehensive food and beverage preparation and storage equipment program to outfit new-buy wide-body aircraft for a major Chinese airline.

Finally, B/E Aerospace has won a Pinnacle main cabin seating program and a comprehensive food and beverage preparation and storage equipment program to outfit a Russian airline's new-buy 737 and A320 aircraft. These awards are initially valued at approximately \$250m.

IBA stresses that it will maintain Aircraft Economic Life assumptions

Despite pressures from some in the industry to reduce Aircraft Economic Life rates, due to economic downturns in various regions (including formerly high growth BRIC nations) IBA argues that its current assumptions remain valid. "On average IBA maintains that its 25 year Economic Life prediction remains valid and we have no intention of altering that assumption at this time," said Dr Stuart Hatcher at IBA.

Cover Story: North America – A changing MRO landscape

By Keith Mwanalushi

The combined MRO market in North America is currently the largest in the world, worth an estimated \$15 billion but with changes in market dynamics sweeping across the region airlines are starting to reassess their MRO set-ups.

The past year has seen several changes to the MRO landscape in North America. Consolidations, bankruptcies and facility closures have had an impact on capacity and the kind of solutions available to airlines. American Airlines for instance announced that it would close its Fort Worth Alliance maintenance facility and outsource some

wide-body work, along with some narrow-body 757s.

Pemco World Air Services applied for chapter 11 bankruptcy protection last year citing that its Florida-based operations had been impacted in recent years by a number of conditions, including a slowdown in the number and magnitude of MROs, a decrease in airplane conversions at its Dothan facility, and the overall impact of the economic downturn, ultimately closing its facility in Dothan, Alabama. Canada-based Aveos saw five different MROs snap up its business in portions after it failed to reignite its engine



The North America MRO market is worth an estimated \$15bn.

Photo - TIMCO

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The North American MRO industry has been characterised by consolidations, bankruptcies and closures. Photo - TIMCO

opportunities shift to new locations or new organisations who have a good strategy and resources to capitalise on the opportunities that exist,” says Covella.

Leonard Kazmerski, VP of marketing and business development at TIMCO Aviation Services agrees. “There is no question that the changes in the MRO provider landscape over the past couple of years have had an impact on the North American market—specifically on the capacity and price opportunities airline customers face.”

He says for large, established providers like TIMCO, customers seem more eager to reduce risk by seeking multi-year contracts than had been the case a few years ago. “This of course can be beneficial to providers and their customers as it increases the likelihood of developing nose-to-tail lines of scheduled work, resulting in lower labour demand variability and lower costs,” adds Kazmerski.

Consolidation is expected to continue, according to Jason Caldwell from the Wencor Group - an aircraft parts supplier, and OEMs will keep fighting to control more of the market. “However, we are getting stronger as a PMA (Parts Manufacturer Approval) community, offering more than just replacement parts, but rather offering packages that include

and airframe businesses. In September 2012 UK component supplier AJ Walter Aviation purchased the component repair business of Aveos Fleet Performance, which has now been rebranded as AJW Technique, expected to be operational during the first quarter of this year. AJW was the only company to restart any part of Aveos’s business in a way that resembled

how it had previously operated. “One thing that is always consistent in the MRO landscape in North America is change,” observes Tom Covella, group president at STS Component Solutions. “Consolidations, bankruptcies and facility closures seem to always go in waves in our business.” However, he quickly notes that when one door closes another one opens. “The

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PMA parts, DER (Designated Engineering Representative) repairs and surplus material.”

He notes that the industry will continue to battle for those customers that emerge from the bankruptcies and consolidations. “There is still turmoil ahead, but the stronger companies (PMA and OEM) will adjust and bring more to the table to remain an invaluable option to those companies,” says Caldwell.

Robert Gaag, head of sales for the USA and Canada at Lufthansa Technik says the North American MRO market is carefully monitored and is open to new business opportunities if they fit in with Lufthansa’s strategy and create sustainable growth. Lufthansa Technik recently completed the consolidation of all its component repair activities in North America (Tulsa, Oklahoma).

“We will grow the capabilities there according to the needs of our contracted airline customers so that we are better prepared for the trend towards more integrated type of component support agreements,” says Gaag. Lufthansa Technik’s Tulsa subsidiary BizJet International reports positive results from its VIP business and expects to further increase its capacity this year. Hawker Pacific Aerospace, another subsidiary in Sun Valley (CA), is now one of the largest landing gear services shops worldwide.

“Of course we are also willing to strengthen our engagement in other MRO business fields like the engine overhaul and base maintenance business. We see some challenges in the need for further cost reduction in order to offer best conditions, because the cost pressure to our customers certainly will remain. In certain business areas capacity is growing over demand, causing overcapacity and we see an increasing tendency of intellectual property protection combined with a limited access to new technologies,” explains Gaag.

The MRO market is growing at a different pace in different world regions and much of this will have some effect on North America. Industry analysis shows considerable MRO growth coming from the Middle East, Asia Pacific and India.

As airlines look at on-going cost reduction programmes in their maintenance and operational costs, analysts continue to predict that heavy maintenance will continue to shift into regions where there are cost reduction opportunities in labour. Covella from STS Components has seen this trend over the past 15 to 20 years towards Asia (primarily on wide-body aircraft), South America and the Caribbean and Eastern Europe.

“However, when you look at such cost reduction opportunities on labour, airlines must also consider other factors including regulatory compliance, any potential logistical challenges and the availability of ‘skilled labour’ to support aircraft inductions. While many of the North American Airlines have had good success in South America and the Caribbean for their heavy maintenance, there is still a continued demand for these services in North America,” says Covella.



Robert Gaag, head of sales for the USA and Canada at Lufthansa Technik

Robert Gaag adds that North American Airlines always preferred local or regional solutions to any outsourcing need, if economically viable. He says with diminishing cost advantages in other parts of the world the MRO work is more likely to stay in North America.

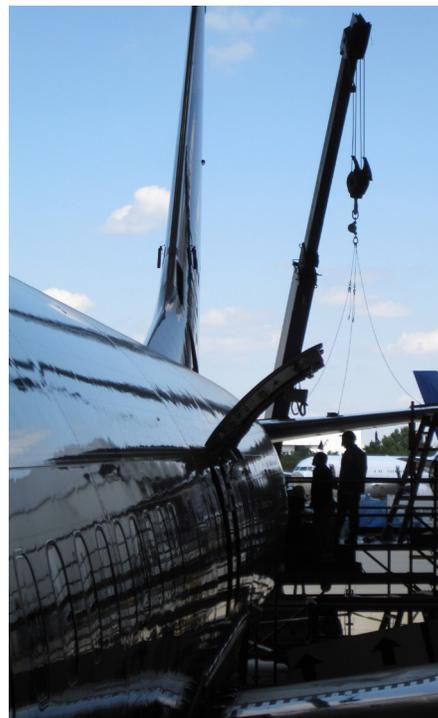
For MRO activity, demand for North American providers like TIMCO will come from operators in the Western hemisphere, largely North America, which had formerly sent larger numbers of wide-body aircraft elsewhere for service, particularly due to tightening capacity in Asia. “We have seen some impact on increased demand by North American operators seeking sources of supply in this hemisphere for fleets that had previously been sent to Asia,” notes TIMCO’s Kazmerski. “However, this has not been overwhelming and a large wave of scheduled HMs for wide body fleets has been likely a larger factor in the recent surge in airframe demand in North America. That said, the market certainly has shifted and we expect many operators to give more careful consideration to sources of supply in Asia and North America for certain wide-body fleets.”

Mike Cazaz from Werner Aero Services says there are still Asian countries where labour costs are fairly low and the logistics are still simple. “While we do see labour cost going up in some specific countries we also see some rules and restrictions that are easing in other countries, designed to attract business such as aviation. Personally, I see a tremendous growth in the MRO market in South East Asia,” says Cazaz.

Jet Aviation Specialists Inc. (JAS) say there is a continual pressure on reducing turn times, to reduce inventory and ensuring assets are being utilised i.e. flying. Low labour rates are only part of the equation; if the time to transport the asset to the lowest cost producer and the efficiency of the repair vendor is not world

class, the savings rapidly diminish, according to JAS.

The dynamics for narrow-body MRO is rather different. Strategically, Ascent Aviation Services provides narrow-body and regional jet MRO services to the North American market place. Based on the market growth estimated for this



Maintenance on narrow-bodies will likely remain in North America.

Photo - TIMCO

segment, Rick Townsend, senior VP for sales and business development at Ascent, does not foresee a major migration in narrow-body MRO aircraft based on how uneconomical it is to ferry aircraft out of the Americas to these emerging markets.

He says over the next 10 years what is required in the North American MRO market is to improve the level of services provided and increase the value equation to the operators, lessors and financial institutions who own and operate these aircraft.

Over the long term, the new generation of narrow-body aircraft such as the 737 Max and A320 Neo are expected to reduce the amount of airframe maintenance required for the operator. The maintenance intervals for these aircraft will continually grow as the manufactures are building in more and more reliability with new corrosion resistant (composite) materials and smart aircraft systems.

Of concern to Townsend is the future availability

of skilled technicians: as he observes, there is less interest in this field as a career. "Less of today's younger people are choosing the airline or MRO maintenance profession. This lack of technical talent in the North American market place will drive fundamental changes in the MRO business model for all of us. Our industry needs to have a continual, focused agenda to target this age demographic and introduce them to this outstanding career field. This targeted education needs to be driven by our Federal, State and local governments along with educational institutions as well as industry trade groups and the manufacturers."

In terms of engine maintenance capability geographical influence is less significant for engine MRO according to Brian Neff, CEO of CTS Engines. "Labour is a smaller percentage of our cost basis. However, you see



Labour is a smaller percentage of our cost basis, says Brian Neff, CEO of CTS Engines.

companies like AMES in Wilmington, Ohio doing more and more base maintenance business here in the U.S. The mature engine MRO market in which CTS plays a part is very different from trying to compete with General Electric for a GE90 'OnPoint' agreement.

"We will continue to work with the OEM to develop and

lead the growing market for mature engine maintenance. Additionally, so much of the

North American MRO market is outsourced to Europe but we expect to win much of that back at the expense of the large European MROs," Neff explains to AviTrader.

United Airlines, meanwhile, has a long-term strategy to outsource its engine maintenance to OEMs. Greg Hartenhoff, general manager at Florida-based Tradewinds Engine Services says this subject relates to risk management. "The risk is the cost of maintenance. OEMs face the same cost control challenges as any operator.

The strategies used to control cost should work universally, OEMs have already entered the surplus market and this seems a viable method of controlling cost. Surplus parts distributors may experience

o p p o r t u n i t y through part sales to the OEM."TIMCO has the unique and split role of being an OEM and a third party MRO provider. As an OEM the company supplies aircraft interiors and offers product support for aircraft seats, lavatories and galleys. As for airframe MRO work, Leonard

Kazmerski explains that the company takes an approach where on one hand, "we explore how best to support the aircraft OEMs, with which we have had long-time relationships.

This could include support for their respective power-by-the-hour programmes should they choose TIMCO as a partner for service delivery. On the other hand, we are also carefully listening to our airline customers, many of which are indicating a strong desire for independent, third party sources of service support. This was one of several factors that led us to open our new regional jet MRO support operation at the Cincinnati-Northern Kentucky International Airport," he concludes.



TIMCO has the split role of OEM and third party MRO provider.

Photo - TIMCO

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Amentum completes MBO

Amentum, the Dublin based commercial aircraft asset management company, announced the successful completion of a management buyout from its former parent HSH Nordbank. The buyout was led by Jan Melgaard (Executive Chairman), Dr. Martin Bouzaima (CEO) and Mitchel Simpson (CFO), joined by Simon Clements (Head of Sales), Rory Hensey (Head of Technical) and Jean O'Driscoll (Head of Legal).

The deal completes the full evolution of Amentum, originally conceived seven years ago as the aviation asset and remarketing arm of HSH Nordbank to manage its aircraft leases. It has since progressed from captive lessor to dedicated third party asset manager with a diversified customer base of financial institutions. Its portfolios under management currently comprise 48 aircraft valued at US\$ 2.3bn. With an excellent track record and a strong management, its intention is to further increase the managed fleet in 2013.

Diehl takes over Thales share in Diehl Aircabin

The Diehl Group, Nürnberg, Germany, has acquired Thales's minority interest (49%) in

Diehl Aircabin GmbH, Laupheim, Germany. Thus, Diehl Aircabin is from now on fully owned by Diehl. Diehl Aircabin mainly supplies commercial air transport aircraft manufacturers with cabin interior lining (panels, hatracks...), air conditioning ducts and crew rest compartments.

Diehl Aircabin's operations are to be totally unaffected. Thales had announced its decision to divest its minority interest in Diehl Aircabin at its annual general meeting in May 2012, as part of the ongoing optimisation of its portfolio. This move does not affect Diehl Aerospace and Junghans Microtec, the other joint ventures of Diehl and Thales, and both groups are willing to pursue their long standing and successful cooperation.

CIT serves as Sole Lead Arranger in AGC Composites & Aerostructures Financing

CIT Group, a global leader in transportation finance, announced that it provided a senior secured unitranche credit facility to AGC Composites & Aerostructures, a division of Oklahoma-based AGC Aerospace & Defense, for the acquisition of Paul Fabrications Ltd., in the U.K. AGC Composites & Aerostructures, a leading manufacturer of aircraft components,

is a portfolio company of Acorn Growth Companies and The Edgewater Funds.

CIT Aerospace & Defense Finance served as Sole Lead Arranger and Administrative Agent for the transaction. The deal was structured and facilitated by CIT Capital Securities, and the financing was provided by CIT Bank, the U.S. commercial bank subsidiary of CIT. Terms of the transaction were not disclosed.

A J Walter Aviation selects CIT as lead arranger for \$125m financing facility

CIT Group, a global leader in transportation finance, released that it arranged and syndicated a \$125m senior secured credit facility to UK-based A J Walter Aviation (AJW), a leading global aircraft spares specialist. Proceeds of the facility will be used to support spare parts acquisitions to service AJW's rapidly growing customer portfolio.

Boeing raises dividend 10% and resumes \$3.6bn share repurchase program

Boeing Chairman, President and Chief Executive Officer Jim McNerney announced a 10% increase in the company's regular quarterly dividend to 48.5 cents per share

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and the resumption of its stock repurchase program with repurchases currently expected to total between \$1.5bn and \$2.0bn in 2013.

“Strong cash generation, consistently solid core operating performance and a positive growth outlook enable us to take these steps to deliver value for our shareholders,” McNerney said. “As returns accelerate on the investments we made in innovative new products, we plan to continue our balanced cash deployment strategy, increasing returns to shareholders, investing in our core businesses and our workforce, and maintaining a strong balance sheet with healthy credit ratings.”

The repurchase program is expected to use the remaining \$3.6bn previously authorized by the Boeing board of directors in October 2007. Boeing plans to begin repurchasing shares following its fourth-quarter earnings announcement in late January 2013.

United Technologies to sell P&W Power Systems unit to Mitsubishi Heavy Industries

United Technologies has reached agreement to sell its Pratt & Whitney Power Systems unit, currently part of Pratt & Whitney, to Mitsubishi Heavy Industries (MHI). Terms of the agreement were not disclosed and the transaction is expected to close in the second quarter of 2013.

Divesting Power Systems allows UTC to focus on its core aerospace and commercial businesses. The transaction is subject to customary closing conditions, including regulatory approvals.

Zodiac Aerospace to acquire Northwest Aerospace Technologies

Zodiac Aerospace, a world leader in aerospace equipment and systems for commercial, regional, and business aircraft, has entered into a definitive agreement with the shareholders of Northwest Aerospace Technologies (NAT) to acquire the company. NAT, headquartered in Everett, near Seattle, provides engineering services and cabin retrofit program management services to airlines.

NAT has about 160 employees, of which 100 engineers. The acquisition of NAT, which

remains subject to the approval of the relevant authorities, will allow Zodiac Aerospace to strengthen its presence in the cabin retrofit market.

AIG to sell up to 90% of International Lease Finance Corporation (ILFC)

American International Group, Inc. (AIG) and an investor group led by Mr. Weng Xianding, the Chairman of New China Trust Co. Ltd., announced that they have entered into an agreement under which AIG will sell up to a 90% stake in International Lease Finance Corporation (ILFC), a non-core asset, to the investor group in a transaction that values ILFC at approximately US\$5.28bn.

The investor group comprised of New China Trust Co., China Aviation Industrial Fund and P3 Investments, has agreed to acquire 80.1% of ILFC for approximately US\$4.23bn, with an option to acquire an additional 9.9% stake.

Upon receipt of required Chinese regulatory approvals and exercise of the option, the investor group is expected to be expanded to include New China Life Insurance Co. and an investment arm of ICBC International.

The transaction, which is expected to close in the second quarter of 2013, marks another success in the disposition of AIG's non-core assets. At closing of the transaction, AIG will retain at least a 10% ownership stake in ILFC, allowing it to continue to participate in the growth of ILFC's unique franchise, including the benefits that the investor group will bring to the company.

ILFC announces pricing of 1.492% \$287m Ex-Im guaranteed secured notes due 2025

International Lease Finance Corporation (ILFC), a wholly owned subsidiary of American International Group, (AIG), has priced \$287,042,000 1.492% prefunded secured notes due 2025 guaranteed by the Export-Import Bank of the United States (Ex-Im Bank). “This first-ever Ex-Im Bank financing for ILFC will further support our company's goals of diversifying capital sources and reducing average funding costs,” said ILFC Chief Executive Officer Henri Courpron. ILFC

will use the proceeds of the notes to finance the purchase of two new Boeing 777-300ER aircraft to be operated by Emirates.

ST Engineering's aerospace arm to acquire Volant Aerospace

VT Aerospace has entered into an agreement to acquire 100% equity interest in Volant Aerospace (Volant), for a purchase consideration of US\$13.1m (approximately S\$16m) subject to post closing adjustments. Following the acquisition, Volant will become a wholly owned subsidiary of VT Aerospace.

VT Aerospace, which owns four aerospace operating companies in Mobile, Alabama; San Antonio, Texas and Hartford, Connecticut, is a subsidiary of Vision Technologies Systems, Inc. (VT Systems), the US headquarters of ST Engineering. T

he acquisition is in line with ST Engineering's strategic initiative to develop the cabin interior engineering, manufacturing and repair capabilities for its aerospace sector.

An industry-leading provider of commercial aircraft interior reconfiguration and modification services, Volant will strengthen the aerospace sector's cabin refurbishment business. Managed as part of the aerospace sector's global MRO network, Volant will work closely with ST Aerospace's MRO network and in-house engineering and development centre, as well as its engineering design specialist, DRB Aviation to offer one-stop turnkey cabin retrofit services.

Established in 1988, Volant has been providing aircraft operators, leasing companies, integrators and maintenance, repair and overhaul (MRO) service providers with new and refurbished interior parts and support services.

Its core product offering includes passenger service units, space panels, ceiling panels, sidewall panels, overhead bins, lavatories and galleys. The acquisition will not have any material impact on the consolidated net tangible assets per share and earnings per share of ST Engineering for the current financial year. The estimated net tangible assets of Volant at closing is US\$1.8m (approximately S\$2.2m).

The reality of the last few years means that aircraft and airlines are struggling for finance, some lessors struggle whilst some lessors enjoy a renaissance and those looking to finance secondary market aircraft that don't come with a lease attached, or don't have the latest engine or MTOW (maximum takeoff weight) - are really up against it.

However, certain companies continue to find it reasonably straightforward to attract finance, predominantly those with sound business models. Some good examples of these reside in the MRO field.

Over the last few years, there have been significant MRO merger and acquisition developments in this field, driven by a variety of factors. Opportunistic acquisitions have perhaps been the most prolific, as the financial and market environment has put many companies under pressure. One man's failure is another man's opportunity as is often the case and many of these MROs return with a new name or leaner procedures, but without too much loss of continuity for the clients or more importantly, for the employees. The demise of Aveos in Canada would perhaps fall into this as A J Walter Aviation and Lockheed Martin, through a subsidiary, have both made significant investments into the assets/former businesses of Aveos and both will hopefully become success stories for the Canadian workers and their families.

Different necessities drive other mergers and acquisitions: recently we have put pen to paper to discuss the global labour market and how labour costs can differ hugely across the globe for a skilled worker performing a given task at an MRO. As this disparity remains, an advantage is provided to those in the cheaper labour markets, and providing they are

able to get the approvals from the FAA and EASA regulators then they have ready access to the airlines in Europe and North America who, almost without exception, are ready to benefit from cheaper maintenance labour costs.

However, the disadvantaged MROs, those based in areas with traditionally high labour rates, don't want to be at a disadvantage. So many of these are pursuing lower labour



Ben Jacques Commercial Manager IBA 2

rates by finding acquisition targets in these low labour rate regions and then moving to rebrand once the acquisition has been completed. I recently had the pleasure of spending the afternoon in a modern European MRO. During a conversation with several of their team, they mentioned that their expectation was less and less physical technical work being performed

in Europe until it becomes a global headquarters for the admin and logistics side of the business.

So far I haven't touched on perhaps the best, but most unusual investors in MRO: the non traditional aviation investor – somebody who wants sensible, predictable returns greater than that possible from the orthodox sources of institutional investment. There is a new breed of would be investors:

sovereign wealth funds, pension funds and even the odd High Net Worth Individual. These aren't the only potential investors, but they might be described as reasonably new to the party, particularly in increasing numbers. In this vein, there will always be the trailblazers from these backgrounds, who may have entered too early for the rest of their counterparts to rush and join them, but fortunately, for the rest of us, the masses are now catching up. Sovereign Wealth Funds are an interesting group, often quite different from one another and seeking quite different things from their state-funded mandate. Either states with big pockets, or states with burgeoning interests in aviation, as an airline, a series of airlines or just to support tourism and national infrastructure,

they can have a variety of reasons for investing in aviation. Pension funds are quite different; they have a client base of old, perhaps grumpy and slightly militant people demanding a risk free, healthy retirement income as early as possible. The pension funds traditionally sought to find a reliable, reasonably low risk, above inflation return. However, this is both tricky and demographically troublesome: over the next decade or two the baby boomer generation will begin to retire in significant numbers. The rate at which these 'ready to relax' retirees are forecast to retire will grow quicker than the pension funds themselves. This means that they have to find investments with bigger returns than those they have traditionally enjoyed.

Aviation has been identified as ready for investment and able to produce significant returns in certain areas (quick, somebody hide the secondary market A340s). Some pension funds already invest in aviation, some with lessors and some with airports as both offer good levels of return on investment, however to our knowledge there are very few straying into either airline or MRO. IBA see MROs as a potentially sound investment for the next decade or two because;

- The industry as a whole is growing, one only needs to look at the swollen order books.
- The global fleet share of leased aircraft is likely to further increase. More leases means more lessees which in turn means more lease transitions, which typically involve a significant check of some sort.
- Airlines have to work the aircraft harder to achieve the same returns, the more efficient MROs who can genuinely provide quick turn times with good value customer service and competitive labour rates will thrive.
- Periods of market downturn can play into the hands of the strategic MRO, spare ramp space can be used for parking, an owner or lessor who has several parked aircraft and no in house technical team will be glad of an MRO partnership to keep the aircraft stored at a low cost, whilst kept serviceable so as not to delay any return to service opportunities which may be forthcoming.

These reasons barely scratch the surface as to why an MRO can be an attractive proposition to somebody keen to expand their aviation portfolio. Currently at IBA we are aware of a handful of MRO merger or acquisition projects, including airlines looking to invest and bring their own costs down, MROs touting themselves and investors perusing the market to see if there is an MRO out there which fits their particular portfolio requirements.

If the last couple of years are anything to go by, this will be a good year for MROs.



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AMETEK (AME) announced the acquisitions of Aero Components International (ACI) and Avtech Avionics and Instruments (Avtech), both privately owned, FAA-certified aviation repair operations located in Miami, FL. ACI repairs and overhauls fuel, hydraulic, pneumatic, power generation and heat exchanger components and is one of the few independent aviation repair shops with fuel repair capabilities. Avtech's expertise is in the repair and maintenance of next generation and legacy avionics and instruments.

Each business operates separate facilities located near AMETEK's High Standard Aviation aerospace maintenance, repair and overhaul (MRO) operation. "Our acquisition of ACI and Avtech represents a further expansion of AMETEK's global aerospace MRO capabilities.

Together with our other MRO acquisitions and organic expansion activities, AMETEK now has a significant and growing presence in this attractive market," comments Frank S. Hermance, AMETEK Chairman and Chief Executive Officer.

Boeing will consolidate its El Paso facilities and reduce the workforce there by the end of 2014. The move is part of the company's strategy to increase affordability for government customers and become more competitive in an increasingly global marketplace.

The 370 workers at the site manufacture electronics for a variety of Boeing products. Anticipated U.S. defense budget cuts likely will mean less demand for these items. Therefore, Boeing will reduce occupied square footage 50% by moving from three buildings into one, and will reduce employment by up to 160 positions.

Boeing and the BMW Group signed a collaboration agreement to participate in joint research on carbon fiber recycling and share knowledge about carbon fiber materials and manufacturing. Boeing and BMW are both pioneering the use of carbon fiber in their products.

Boeing's 787 Dreamliner is made up of 50% carbon fiber material and BMW will introduce two vehicles with passenger compartments made of carbon fiber in 2013. Recycling composite material at

point of use and the end of product life is critical to both companies. As part of the collaboration agreement, Boeing and the BMW Group will also share carbon fiber manufacturing process simulations and ideas for manufacturing automation.

[SR Technics to complement existing component repair shop network with Malaysian facility](#)

January 15, 2013 – Zurich, Switzerland:

SRTechnics, part of the Mubadala Aerospace MRO network, is preparing to add a component repair shop in Kuala Lumpur, Malaysia to supplement the company's existing repair network in Switzerland, Spain and Abu Dhabi. The facility, which will open in Q4 2013, will place SR Technics closer to its customers in Asia Pacific and supports the growth of its Integrated Component Services (ICS) business.

As part of this project, many labor-intensive component repairs will be focused in Malaysia. This will free up the resources of the company's experienced Zurich team to develop new component capabilities and technologies on existing and emerging platforms in airframes and engines whilst also focusing on expanding capacity for know-how intensive, high-tech repairs through in-sourcing.

The majority of the employees for the new facility will be drawn from the Malaysian market and will undergo a three-month on-the-job training program at SR Technics' Zurich facility.

The training will ensure that SR Technics' exacting quality standards are maintained wherever a component is repaired. In addition, a senior management team from the component shops in Switzerland will move to Malaysia to oversee the project further cementing service quality and reliability standards.

"Integrated Component Services offers substantial growth potential for maintenance, repair and overhaul companies over the mid- to long-term. Asia Pacific is predicted to be the region with the greatest ICS customer demand increase," comments James Stewart, Group CEO for the Mubadala Aerospace MRO network. "Customer proximity and offering best-

in-class quality, reliability and turnaround times at affordable prices are essential to tap into this growth."

André Wall, President at SR Technics, comments: "With shops in Europe and the Middle East, the addition of a facility in Asia will further optimize our component repair capabilities. Zurich is, and will remain, an important cornerstone of our component business, where our experienced team will be instrumental in developing important new component capabilities for existing and new engine and airframe platforms.

This, together with greater emphasis on in-sourcing repair capabilities will be a driver for future growth, bringing benefits to SR Technics and the wider Mubadala Aerospace MRO network." Wall continues: "Customer service reliability is a cornerstone of our business, therefore to ensure an uninterrupted service to our customers is maintained throughout this project and during the ramp-up, we have invested in additional component stock."

[International Bureau of Aviation appoints Paul Brooker as Chief Technical Manager.](#)

IBA is pleased to announce the appointment of Paul Brooker, who joins the global aviation consultancy in a new role heading up their busy technical department.

Paul has an extensive background in civil aviation spanning over 30 years and his previous positions have included roles at Aero Nusantara Indonesia, the Malaysian Air Services Agency, BAE Systems, and Monarch Aircraft Engineering.

He brings a wealth of expertise both as a Part 66 EASA Licensed Aircraft Engineer, and in the fields of aircraft manufacture, maintenance and project management. Paul has also been actively involved in certification issues for both civilian and military applications.

James Uniacke, IBA's Head of Asset Management comments "Paul's skills are of the highest calibre and I am confident he will play a key role in the Company's future development. His appointment further strengthens IBA's regulatory, technical and asset management capabilities and the broad project management work conducted for our diverse, global client base."



Delta TechOps keeps the airline flying

Photo - Delta TechOps

Customer Business, responsible for the Americas region and for achieving billions of dollars in sales growth. "Peter's proven track record in business strategy and customer service makes him the ideal leader for the Delta TechOps MRO organisation," says Delta senior vice president John Laughter.

Delta TechOps is the largest airline maintenance, repair and overhaul provider in North America, providing maintenance and engineering support for Delta's 750-plus fleet, along with more than 150 other aviation and airline customers around the world. The business employs more than 9,600 maintenance professionals and has more than 70 years experience in the industry.

Corporate information

With Delta TechOps, customers leverage the unparalleled efficiencies and global reach of the world's third largest airline MRO to keep their fleet in the air. LEAN and Six Sigma processes and ISO certification allow Delta TechOps' experienced and dedicated workforce to provide high quality service to meet the maintenance needs of Delta Air Lines and airline operators all over the world. As a full-service MRO, Delta TechOps provides comprehensive services including technical training, engineering support, line maintenance services, inventory management, component support, engine overhaul, and engine condition monitoring. And when in

Since joining Delta TechOps in December 2012 as vice president, Business Development and MRO, Englishman Peter Turner has set his sights high. "We're planning to expand our global footprint," says Turner, mentioning Asia as a strong candidate for future growth. Delta already collaborates with partners in the continent, but has no physical MRO facilities there so far.

first class customer service from us, performing to their exact specifications."

Delta's reputation for reliability and high quality service rubs off on the TechOps division, Turner believes: "We're recognised as one of the most reliable airlines, so who better to look after your aircraft?" he reasons.

"Delta is recognised throughout the industry as a significant brand. We're the technical operation for one of the largest groups in the aviation world – we keep Delta flying – so part of the recognition is being voted number one by Business Traveller magazine. This puts us in a position where we can be regarded by our customer base as understanding the business," says Turner.

Turner joined Delta TechOps from Rolls-Royce North America, where he was vice president,

From a position in the early 2000s where Delta TechOps did 100 per cent of its work for its parent airline, the unit now gains a fifth of its revenue from third party contracts, a percentage that Turner is keen to increase. "We are definitely looking to grow our third party business," he says. "We are investing in our customers' futures, in new product lines. They want to be reassured that we're not distracted by running an airline. They want



Delta works with more than 150 airlines

Photo - Delta TechOps



Making Informed Decisions

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As the aviation cycle continues its unpredictable path, risks and opportunities are forever rising and receding. The combined experience of IBA's personnel along with the amounts of data acquired and analysed over the past 24 years, forms an exceptionally strong and unique base for IBA's data provision services.

Data provision services currently offered

- Aircraft Values Book
- Engine Values Book
- Lease Rate Digest
- Jet Values 2
- Maintenance Cost Journal

Now available, JetData, IBA's new commercial aircraft database.

Through our online portal, JetData provides 24/7 global access to accurate information on all modern jet and turboprop aircraft with a capacity greater than 20 seats. Users can obtain detailed information providing insight into and analysis of the aviation industry.

For more information or a quotation on any of the data provision services offered by IBA contact Owen Geach or Ben Jacques.



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need of emergency services, Delta TechOps can dispatch their quick-response Disabled Aircraft Recovery Team (D.A.R.T.) to get its customers back in the air.

Fast turn times – lower costs

To ensure prompt service and flexibility, Delta TechOps operates 51 line maintenance facilities in multiple locations around the world. Each of these facilities offers light maintenance for both narrowbody and widebody aircraft.

The Atlanta Technical Operations Center offers much more, with 2.7 million ft² (roughly 250,000m², or the size of 47 football fields) designed to provide a smooth flow of work and material.

Award winning technical experts

With a flexible workforce, Delta TechOps offers the most highly trained and productive technicians in the industry, boasting a technical dispatch reliability greater than 97 per cent fleetwide.

To maintain expertise on all things cutting edge, employees are encouraged to pursue continuing education, training and advanced computer knowledge.

The average length of service for a Delta TechOps aviation maintenance technician (AMT) with an Airframe and Powerplant (A&P) certificate is 14 years, and the average length of service for an AMT inspector with an A&P certificate is 19 years.

Airframe maintenance

From routine airframe maintenance to the most complex repairs, even complete airframe conversions, Delta TechOps delivers the kind of cost-effective results today's competitive business environment demands. Delta TechOps has three maintenance hangars

that can accommodate many wide body and narrow body aircraft simultaneously. They include four floors of shops and warehouses, and three state-of-the-art paint hangar bays.

Engine maintenance

Propelled by Lean and Six Sigma processes, Delta TechOps' industry-leading engine maintenance delivers the highest quality at the lowest possible cost per flight hour. Delta TechOps' expansive engine shop offers maximum flexibility for production planning of each engine from time of induction through final test.

Plus, Delta TechOps' Engine-On-Wing team dispatches highly skilled technicians to engines needing repair when in service.

Line maintenance

Delta TechOps performs everything from routine turnaround and overnight checks to rectification of non-routine aircraft log entries and the most complex in-service repairs. Plus, Delta TechOps facilities around the globe offer unparalleled access to the parts, tools and equipment needed to keep aircraft flying.

Component maintenance

Delta TechOps' Component Maintenance division is one of only a few airline MRO service providers to achieve ISO 9001 certification. The diverse group maintains everything from composite repairs and flight controls to instruments and engine components.

Delta TechOps' Component Maintenance shops repair and service more than 8,000 different aircraft and engine components, turning over 200,000 parts each year for Delta and other air carriers and maintenance facilities.

Complete Fleet™ services

Delta TechOps Complete Fleet™ Services allow customers to customize a comprehensive solution to address their maintenance needs and lets them get back to what they do best – fly.

Complete Fleet™ Services transform the disparate elements of maintenance operations into an integrated program, held together by the most experienced professionals in the



Peter Turner, vice president, Business Development and MRO Photo - Delta TechOps

industry. And because each business profile is unique, no two Complete Fleet™ solutions are the same. Delta TechOps tailors individual services into a comprehensive program that precisely fits each customer's unique needs.

Complete Fleet™ Services provide a single point of contact for rapid response and lower administrative overhead.

Plus, customers can stay on the cutting edge of the most advanced technologies without cutting too far into their operational budgets. Most importantly, Complete Fleet™ Services maximize aircraft dispatch reliability.

Because Delta TechOps assumes responsibility for managing and controlling costs, each Complete Fleet™ solution provides cost certainty for the major elements of maintenance spend.

It's the efficient way to increase liquidity while gaining a best-in-class provider to manage rotating assets, such as spare parts.

Delta TechOps goes the extra mile to provide a strategic partnership that encourages a long-term view on controlling costs and improving performance. It's a synergistic relationship that produces added value for organizations today, tomorrow and for years to come.



Delta TechOps Employee at work Photo - Delta TechOps

Universal Avionics' long-time customer, Horizon Air, has hit a new milestone; as of Friday, November 30th, all 48 of Horizon Air's Bombardier Q400 aircraft were modified with Wide Area Augmentation System (WAAS) using dual Universal Avionics' UNS-1Ew Flight Management Systems (FMS). All aircraft are now WAAS, Required Navigation Performance (RNP) 0.3 Authorization Required (AR) and Cat III (two engine and single engine)-capable.

AerData, a provider of software and services for the aviation industry announced that the

fleet database AtlasData, is now available with Airfax aircraft availability data. AtlasData is an intuitive and powerful online tool to track, summarize and analyze the world's fleet and its value, where the valuation expertise is implemented in co-operation with the aircraft appraiser, Avitas.

Ramco Systems, a Global Aviation Maintenance & Engineering (M&E) and Maintenance, Repair & Overhaul (MRO) software provider on cloud, tablets and iPad, announced that Ramco Aviation has gone live with its implementation

in Air India. With this, Ramco Aviation Suite will help Air India in maintaining its 125+ fleet of Boeing and Airbus, including the latest Boeing 787. Commenting on this milestone, Mr. Virender Aggarwal, CEO, Ramco Systems, said, "We are pleased to announce that Ramco Aviation has successfully gone live at Air India for its entire fleet including the latest generation of Boeing 787. We have been investing in building the latest functionality into the product by enhancing the user experience and delivering it on Cloud, Mobile and iPad.

People On The Move

Boeing named **Troy Lahr** vice president, Investor Relations. Lahr will take over from Stephanie Pope, who will assume the role of vice president, Financial Planning & Analysis. Both will report to Greg Smith, Boeing's chief financial officer. The changes are effective Feb. 1st.

GKN Aerospace has appointed **Michael McCann** as CEO of GKN Aerospace – Engine Systems, the new business formed from the company's recent acquisition of Volvo Aero. Charles Paterson is to take up the position of Senior Vice President of Business Development and Strategy for GKN Aerospace – the role vacated by McCann.

Pratt & Whitney appointed **Paul Adams** Chief Operating Officer effective immediately and reporting to Pratt & Whitney President David P. Hess. In his new position Adams will lead a unified operations strategy across all Pratt & Whitney business units to ensure the readiness of the company's global supply chain.

At the same time, Paul will drive the engineering and programs organizations to achieve on-time entry-into-service of all the company's programs. Among the organizations reporting to Paul will be Commercial Engines, Military Engines, Pratt & Whitney Canada, Power Systems, AeroPower, as well as Engineering and Operations.

Mxi Technologies, a leader in aviation maintenance management software, announced the appointment of three new members to the company's Board of Directors. As senior executives with experience spanning the aviation industries and information technology, **Glenn Leonard**,



Michael McCann
New CEO of GKN Aerospace

Cameron Burr, and **Dave Curley** join current Board members, Dave Seibel, Kurt Larson, Greg Share, and James Johnston, in support of the Board's role in shaping the strategic direction for Mxi Technologies.

AJW Group has appointed **Steve Hollinshead** as its new Finance Director. In this position, Hollinshead will hold responsibility for all financial matters across A J Walter Aviation and other Group companies, including AJW Technique.

This appointment reflects the rapid development of the AJW Group which has more than doubled in size in the past five years, developing a more comprehensive service portfolio across a growing geographical footprint.

Constant Aviation, a maintenance, repair, and overhaul facility, announced **Lance Lajara** has joined the Constant Aviation team as Large Fleet Account Manager. "Lance brings over 15 years experience in the aviation industry,

most recently as the Customer Care Manager with Honeywell. He spent over 10 years with Honeywell in numerous roles covering quality, operations, logistics and customer service.

Carsten Behrens has been appointed Managing Director of the P&WC Customer Service Centre Europe (CSC), in Berlin-Brandenburg, Germany, effective January 1, 2013. He takes over his new role at the helm of the joint venture of MTU Maintenance Berlin-Brandenburg and Pratt & Whitney Canada (P&WC) from Clemens Linden, who became the new Managing Director of EUROJET Turbo GmbH, Germany with effect from December 1, 2012.

Mr Luc Vigneron, Chairman and Chief Executive Officer of Thales, tendered his resignation to the company's directors at a meeting of the Board of Directors on 20 December 2012, and his resignation was accepted. At this same meeting, the Board of Directors co-opted Mr Jean-Bernard Lévy as a director and subsequently elected him to the position of Chairman and Chief Executive Officer of Thales.

Thales's two main shareholders, the French State and the Dassault Aviation, welcomed this appointment and will work in agreement with senior management to pursue the continued recovery of the Group and its future development.

Air Transport Services Group (ATSG) reported the election to its Board of Directors of **Richard Baudouin**, an experienced aircraft leasing executive who co-founded Aviation Capital Group (ACG), a global leader in aircraft leasing and finance. Baudouin is currently one of three principals in Infinity Aviation Capital, an investment firm involved in aircraft leasing.