MRO BUSINESS TODAY

July 15th, 2020

GKN Aerospace continues to be the MRO of choice for Gripen RM12 engine

Swedish Armed Forces have renewed the Performance Based Logistics (PBL) multi-year contract with GKN Aerospace for the comprehensive support of RM12 engine for approximately USD 440 million. The RM12 engine powers the JAS 39 Gripen C/D fighter. As per the contract GKN not only has to ensure the engine availability for every Swedish Air Force mission as well as for Gripen C/D export customers: the Czech Republic, Hungary and Thailand but also support day-to-day operations of JAS 39 Gripen C/D users. This includes providing technical product support, comprehensive maintenance, repair and overhaul including repair development and spare parts supply.

Stressing the importance of engine availability and operational safety Joakim Andersson, President GKN Aerospace Engines said, "GKN Aerospace closely monitors every aspect of product life cycle cost effectiveness. With the recognition and award from the customer GKN Aerospace will continue to do its best in keeping this engine's excellent track record, ensuring it is one of the best single engine installations in the world. The company understands the importance of keeping the engine system in active service for many years to come."

The RM12 engine is a modification of GE F404 engine which includes additional features like single engine safety criteria, higher performance and greater durability. Thus the RM12 provides more operational effectiveness with favourable life-cycle cost. It has so far powered the JAS 39 Gripen throughout the approximately 310,000 flight hours. GKN Aerospace holds the military type certificate (MTC) for the RM12 engine.

In January this year, FMV selected GKN Aerospace to be the product support and MRO provider for the RM16, the engine for Gripen E, with the aim to utilize synergies between the RM12 and the RM16 as much as possible.

Product Portfolio changes at N3 Engine Overhaul Services

The N3 Engine Overhaul Services has undergone a change in the product portfolio after delivery of the last Rolls Royce Trent 500 engine. It will now be the volume shop for Rolls-Royce Trent XWB-84k, the latest and most modern engine type for long-haul. The entire team has started to expand its capacity for the overhaul and repair of Trent XWB. By next year the XWB is expected to form the majority of the overhauled engines at N3.

However, for the time being, the N3 will maintain its capacity for the Trent 500 and continue to offer its services. The N3 is a joint venture company of Lufthansa Technik and Rolls-Royce. As Trent 500 Volume Shop N3 has a lot of experience. Between 2007 and 2020 a total of 540 Trent 500 engines have been overhauled at N3.

SR Technics video streaming portal 'Remote Table Inspection' for Engine Service

The dedicated team at SR Technics has come up with their latest innovation, a video streaming portal 'the Remote Table Inspection' (RTI) for Engine Services at their Zurich facility. With this all SR Technics engine customers can follow the inspection work on their engines, parts and modules conveniently and remotely from their homes. The team at SR technic began their work on this module immediately after the COVID-19 pandemic outbreak. Keeping in view the social distancing norms and no-touch solutions for maintenance, the RTI was developed and live by the end of April 2020.

"SR Technics is one of the first engine MRO providers to use video streaming technology for remote table inspections," said Owen McClave, Senior Vice President Engine Services at SR Technics. "Given the great reduction in travel and face-to-face interactions in recent months, this is yet another example of how our company has rapidly adapted to market demands while prioritizing the health of our customers and personnel."

Remote Table Inspections (RTIs) at SR Technics help to minimize waiting times significantly reduce travel costs and process time and eliminate bottlenecks. In addition, the flow of engine materials is not affected by an RTI, since items do not need to be blocked as with a physical table inspection. Besides optimizing material flow and streamlining the inspection process, all results are documented and made available to the customer in real time.

"As a customer who shared opinions from the initial introduction of RTI, I found this procedure to be a very efficient and realistic alternative," said Seahee Cho, Power Plant Engineer – Engine Maintenance at Asiana Airlines. "The advantages of RTI are various, and it is possible to manage the engine history through video recording, which is part of RTI, and to shorten the engine repair duration (TAT). In addition, live streaming technology can be used for various issues that are not limited to table inspection and require further discussion. I expect that this new process will enable more convenient mutual cooperation."

Iberia's Maintenance Survival Strategy in COVID-19 pandemic

The post COVID-19 pandemic phase has started across the globe, many International airlines have slowly started opening to business. The MROs have geared up to get their share of maintenance work. However there is a lot of uncertainty in the market. With the furloughs and lay-offs there's increased negativity in the MRO sector. **Oscar Pérez Vázquez,** Managing Director -Heavy Maintenance at Iberia speaks about how to deal with the crisis, the overall impact on MRO industry, the slow recovery phase and much more in an Exclusive Interview with **Swati.k**

Q- The aerospace industry is one of the worse affected in the COVID-19 pandemic in turn having a massive impact on the MRO sector. Many MRO providers have started to furlough, lay-off or short-time workers, the full impact of the crisis is yet to be felt, with many analysts now predicting a catastrophic year for the sector. Your views

A- No doubt we are living unprecedented times in our industry, which has been heavily impacted. All referred actions taken by airlines and MROs are devoted to cut costs rapidly to preserve cash and companies survival. The scenarios we are managing at the moment obviously foresee an impact this year, although still some maintenance opportunities we are having in Iberia Maintenance such as aircraft parking and preservation activities, redelivery programs accelerated, and some customers taking advantage of the downtime for scheduling maintenance, etc.

Q– How according to you are the global MRO industries currently dealing with the crisis? What is your plan-of-action to get back in business?

A- MROs now need to focus on supporting the customers more than ever before so we contribute to their recovery and survival, by adapting to their changing needs and being flexible enough to accommodate their maintenance requirements.
In IB MRO we have constantly adapted our capacity to the variable demand, by maximizing utilization of our workforce and having drastic plans on cost cutting. Our aim is to help airlines reducing base maintenance cost by tailoring the work scopes, leveraging on our engineering team and strong in house repair backshop capabilities, as well as combining heavy maintenance capabilities with our engine and components shop.
Additionally, we have not stopped operations –although reduced them through the toughest months of the pandemic-, being our first priority to assure the health & safety conditions of our teams whilst retaining the ability to ramp up when demand returns.

Q– It is predicted that domestic airlines will have a faster come-back as opposed to International players. What impact will it have on the MRO industry as a whole?

A- Scenarios change very often so it's a matter of adapting to them. The scenario you mention may have a drift on the maintenance needs between wide body and narrow body, something that we've already started to face. At Iberia Maintenance we have the facility and staff skills flexibility to adapt to demand coming from narrow body or wide body.

Q– The compulsion of safety norms and social-distancing at work places has created inconvenience for many MRO operations while performing regular checks etc. How did you deal with this challenge?

A - That's a challenge indeed which we have faced with ahead-of-the-game measures to assure a Covid safe environment. All our staff have gone through Covid tests to make sure all at the working place are virus free, together with a big battery of new safety measures as disinfection of all workplaces, work stations toilets, all areas where people gather, and equipment; consciousness-raising campaigns to encourage hand-washing, social distancing, the use of PPE, and all other prevention measures recommended by health authorities; and other as staggered entrance and leaving times when possible, redistribution of space, signage, physical barriers, etc. The challenge is mainly overcome by the great commitment of the IB MRO team, which I'm proud of how they've gone through the most difficult times of the pandemic while supporting the customers with heavy checks. In fact we have just received from APPLUS, one of the worldwide leaders in the certification sector, the Safe Work Certification qualification against Covid 19.

Q – The Covid-19 pandemic has brought about a rise in mergers and acquisitions in aerospace MRO as a safe survival strategy in the crisis. What, according to you will be the long-term impacts of such contracts?

A - Major global events can and usually do lead to consolidation in certain sectors this is not new. I think a number of companies will be viewing all options in this situation clearly M&A activity only makes sense if it brings value to the customer whilst retaining choice.

Q – Analysts have predicted that, going ahead the airlines will further delay the maintenance schedules wherever possible. So it is said that the initial few months post pandemic will be extremely difficult for MROs, however it will see a gradual increase in the MRO activities. Your views

A - This year maintenance schedules have become quite hectic, with last minute drops on heavy checks as well as very short term demand, as a result to the changing scenarios on the airlines flight schedules and fleet management. As said before, while we see a reduction on scheduled maintenance, some other needs such as redelivery checks are arising. Flexibility of MROs is key and customers are looking for the suppliers to step up and support them in this time of crisis.

Q – The pandemic has increased the use of digital innovations and technologies like additive manufacturing, predictive maintenance, virtual inspections, on-line training, artificial intelligence etc for MRO operations. Can you explain with day-to-day example the use of any of the above technologies during the pandemic phase?

A - The need of improving the MROs by digitalization and new technologies is not only associated to the pandemic. We have been proactively looking for ways to improve customer experience and services at a lower cost by new innovative solutions. True that the pandemic has increased the need to provide tele-assistance when customers were not able to travel. On that sense, as an example, at IB MRO we have increased the activity on live streaming Boroscope inspections, so the owner/lessor can assist live to the BSI and wide use of office 365 functionality.

Q – The stand-alone repair shops are the worst hit in this crisis. Do you see a scope for market recovery for such shops?

A - Difficult. This type of shops have been surviving mainly on mature products where the entry barriers are lower. The older fleet retirements will put a lot of pressure in this market on the short/medium term.

Q – Lastly, what advice would you give to the younger generations currently pursuing their careers in aircraft maintenance?

A - The airline industry has gone through crisis periods over the last decades. Covid is by far the deepest one and, as in every crisis period, the industry will not be the same, so we will have to adjust our business models to the new reality. The ones with a more solid cost base and best service will be able to compete in a more challenging scenario. To drive the industry forward we need to not only attract but retain key talent, innovative and digitally designed aircraft demand a new approach and the younger qualified generation have a great future ahead in this industry.

RUAG completes level three PPI on Bombardier Global Express

In spite of COVID-19 challenges, RUAG International has successfully fulfilled a level three Pre-Purchase Inspection (PPI) on a Bombardier Global Express business aircraft at its Munich-Oberpfaffenhofen facility. Taking into consideration the challenges posed due to the COVID-19 pandemic, the complete inspection process was carried out smoothly and all schedule all the while following the healthcare and social distancing measures.

In the project feedback Samuel G. Lechtner, L&L International Ltd, Buyer's Representative said, "It was an absolute pleasure working with the RUAG team. From start to finish it was a quality process and job. Communication, know how, and responsiveness were excellent. Thanks to the team for their assistance, especially during these uncertain times. We will be back in the future with more EU projects."

The buyer's representative determined the scope of the inspection directly using RUAG's proprietary PPI decision-making tool. The clear selection of requirements enabled the project to proceed promptly while accurately generating the details relevant to the purchase criteria. In addition, the RUAG team enabled a seamless registration process for the new ownership, ensuring full documentation readiness for a prompt on-site acceptance by the FAA-DAR (Designated Airworthiness Representative).

The aircraft arrived at the RUAG MRO International location during the initial stages of the COVID-19 pandemic, adding a layer of complexity to the PPI process. "We are proud of the quality and performance we are able to deliver while still safeguarding the health of all involved," said Christian Karl, Head of Sales Business Jets, RUAG MRO International. "Precise planning of this PPI project allowed our teams to proceed both reliably and safely. We can confirm that we continue to follow the recommended guidelines for protecting our customers, our employees, and our business jet community."

ASL Airlines extend the service contract of ATR fleet to Sabena technics

Sabena technics continue to be the MRO of choice for ASL Airlines with the extension of contract for component support of four ATR 42-300F and twelve ATR 72-200F. The service of this fleet which includes full PBH support, pool access and repair and overhaul of rotable components will be done from Sabena technics Dinard site.

Feeling proud on receiving the contract, Philippe Delisle, Chief Operating Officer of Sabena technics said, "ASL Airlines is one of our most important European cargo operators for the past 15 years and this agreement demonstrates their confidence in the quality and efficiency of our solutions. It is a true mark of trust, especially in these challenging times. With our customized PBH program, we are able to keep component supply, repair & overhaul costs optimized while maintaining high reliability, fleet performance and timely AOG support."

"ASL Airlines Ireland Ltd are pleased to join forces with Sabena technics for Rotable Component Support on our fleet of ATR Aircraft. We look forward to working together to ensure that our customers continue to benefit from ASL's industry leading levels of operational reliability, safety and customer's satisfaction", said Cormac Martin, Logistic Manager of ASL Airlines Ireland Ltd.

Sabena technics currently have over 220 aircraft under PBH support.

Magnetic MRO successfully completes the ATR program for Finnair

In a recent announcement Magnetic MRO recently completed the ATR program for Finnair in which 12 aircraft received interior modification and 11 of them had new livery.

"Finnair ATR 72 interior and exterior refurbishment program was a complex process which involved multiple Magnetic MRO departments, including painting, line maintenance and interior production. The synergy between them was outstanding thus we are extremely happy with the results and the positive feedback received from our client," shared Rihards Priedkalns, Aircraft Paintshop Manager at Magnetic MRO.

The agreement between Norra, Finnair's partner company and Magnetic MRO was signed in September 2019 and the first delivery was given from Magnetic MRO's Tallinn hangars on 8th May 2019. It included complete paint work, full interior refurbishment and maintenance on all 12 of the airline's ATR 72 fleet operated for Finnair. . For Magnetic MRO's Interior team, this project involved producing the largest number of new details for an aircraft that the company has ever manufactured for a single interior project, like new kick strips, stickers, latches and hinges for overhead bins, and other design elements.

"Can't claim that I would be a paint expert, but I did use up a couple of boxes of red tape on paint inspections in my delivery days. So accepting something this good with only maybe a total of 50 cm red tape needed for the entire aircraft was something new to me," shared Pauliina Heikkil, Finnair's representative.

Indian Air Force receives final 5 deliveries of AH-64E Apache from Boeing

Indian Air Force (IAF) took the delivery of final five of 22 all new AH-64E Apache at the Air Force Station, Hindan from Boeing. Just prior to the pandemic, Boeing had delivered the remaining five out of 15 CH-47F(I) Chinook heavy lift helicopters to IAF. As per the contract between the Indian Defence Ministry and Boeing in September 2015, Boeing is to provide production, training and support of 2 AH-64E Apache and 15 CH-47F(I) Chinook helicopters. Besides this, on US President Donald Trump's visit to India in March 2020, India signed an acquisition contract of sic Apaches for Indian Army. India is amongst the 17 national worldwide who has the advanced variant of AH-64E Apache and the iconic tandem-rotor helicopter Chinook.

"Customer centricity, commitment to the modernization and mission-readiness of India's defence forces are key values to our partnership with India," said Surendra Ahuja, managing director, Boeing Defence India. "With this delivery of military helicopters, we continue to nurture this partnership and are fully committed to working closely with India's defence forces to deliver the right value and capabilities to meet their operational needs," Ahuja added.

The AH-64E Apache is designed and equipped with an open systems architecture including the latest communications, navigation, sensor and weapon systems. It has an improved Modernized Target Acquisition Designation System that provides day, night and all-weather target information, as well as night vision navigation capability. In addition to classifying air and ground targets, the Fire Control Radar has been updated to operate in the maritime environment. It is uniquely suited to meet a commander's needs, including reconnaissance, security, peacekeeping operations, and lethal attack, across myriad environments - without reconfiguration.

The Chinook is the world's most reliable and efficient heavy-lift helicopter for more than 50 years, allowing customers to operate in climatic (hot), altitude (high), and crosswind conditions that typically keep other helicopters from flying. The CH-47F(I) Chinook contains a modern machined airframe, a common avionics architecture system (CAAS) cockpit, and a digital automatic flight control system (DAFCS). Those innovations and technologies will help the Indian Air Force meet evolving mission demands, maximize interoperability, and reduce lifecycle costs.

Boeing's joint venture in Hyderabad, Tata Boeing Aerospace Limited (TBAL) has been producing aero-structures for the AH-64 Apache helicopter for both US Army and international customers. TBAL marks a major step towards the co-development of integrated systems in aerospace and defence in India. Boeing's suppliers in India are manufacturing critical systems and components for the Chinooks, including the crown and tailcone assembly by Tata Advanced Systems and the ramp and aft pylon by Dynamatic Technologies. Boeing today works with over 200 suppliers and partners in the country in support of "Make in India" and "Skill India."

Boeing Defence India provides holistic lifecycle solutions for government and defence customers in the country. Boeing delivers services that ensure high availability and mission-readiness of platforms to its defence customers at competitive costs through its investments in services infrastructure and building local capabilities and partnerships. With the induction of the Apaches and Chinooks, Boeing anticipates additional opportunities in rotorcraft training and sustainment.

US Department of Defence selects Northrop Grumman's FAAD C2

Northrop Grumman Corporation's Forward Area Air Defence Command and Control (FAAD C2) system has been selected by the US Department of Defence (DOD) as the interim command and control system for future Counter-Small Unmanned Aerial System (C-sUAS) procurements.

The decision follows the findings of a service board established by the DOD's Joint Counter-Small Unmanned Aerial Systems (C-sUAS) Office to evaluate and provide an order-of-merit list for "best-of-breed" systems to counter small drones. The down-select board was comprised of representatives from the US Army, Navy, Marine Corps, Air Force and Special Operations Command, and senior representatives from the acquisition, technical, operational and other communities. FAAD C2 will serve as the current joint common C-sUAS C2 platform while an enduring solution is developed.

"Our FAAD C2 has been saving lives at Forward Operating Bases and locations around the world since 2005," said Kenn Todorov, vice president and general manager, combat systems and mission readiness, Northrop Grumman. "FAAD C2 continuously evolves to defend against new threats like small unmanned aerial systems and will continue to be the gold standard for protection of our troops whether stationed at bases or on the move."

FAAD C2 is a battle-proven C2 system, deployed in several theatres of operation for the C-UAS and C-RAM (Counter-Rocket, Artillery and Mortar) missions for its proven performance and flexibility that enables easy integration with available sensors, effectors and warning systems to launch rapid, real-time defence against short range and manoeuvring threats. It also has been selected as the C2 system for the Army's Initial Manoeuvre Short Range Air Defence (IM-SHORAD) platforms. FAAD-C2 is built on the open architecture common to the Northrop Grumman all-domain C4I solution ecosystem and will ultimately converge into the US Army's Integrated Air and Missile Defence Battle Command System (IBCS).

Transfer of Technology, Saab's first aerostructure plant in Brazil

Saab's first aerostructures plant outside of Sweden, Saab Aeronutica Montagens (SAM) for the new Gripen E/F fighter started production of building sections like tail-cone and front fuselage of single-seat version of Gripen fighter. Subsequently, the aerodynamic brakes, rear fuselage, wing box and front fuselage for the two-seater version will also be manufactured at SAM. These will be delivered to the final assembly facilities at the Embraer plant in Gavio Peixoto, So Paulo, Brazil and to Linkping, Sweden.

In 2014, Saab signed a contract with Brazilian government for the development and production of 36 Gripen E/F aircraft. In September last year, the first Brazilian Gripen E aircraft was delivered to start the flight test programme.

"This is another outcome of the Transfer of Technology (ToT) of the Gripen programme. Based on theoretical and practical on-the-job training of Brazilian engineers and assemblers at Saab in Linkping, we were able to establish a highly qualified production line at SAM, following the same standards that we have in our factory in Sweden," said Jonas Hjelm, head of Saab's business area Aeronautics.

Currently, SAM has more than 70 highly qualified employees, half of whom are participating or have already participated in the ToT Programme in Sweden. Part of these employees have already completed the training and returned to initiate the production in Brazil.

Elbit Systems to provide additional 1,000 E-LynX SDR systems to Swedish Army

With an aim to expand the involvement of Elbit Systems in Sweden's tactical radio upgrade program, Elbit Systems will supply more than 1,000 additional E-LynXTM Software Defined Radio (SDR) systems to the Swedish Army. The delivery will be carried out through Elbit Systems' subsidiary in Germany which includes the E-LynX handheld and vehicular configurations. Elbit Systems is the supplier of the SDR network solution to the Swedish Army, for which serial deliveries commenced in 2018.

Haim Delmar, Executive Vice President and General Manager of Elbit Systems C4I & Cyber said, "We appreciate the confidence placed in our E-LynX solution by the Swedish Defense Material Administration (FMV) and the Swedish Armed Forces. We are proud to be in a position to support the Swedish military as it enhances its networked capabilities".

The E-LynX radio systems facilitate advanced networking solutions in both open field and in urban areas. The E-LynX family of radio systems is designed with an open architecture approach, features unique waveforms and enables the adoption of a range of additional European and NATO waveforms.

The installment base of the E-LynX SDR systems has been growing on an ongoing basis. Elbit Systems is the provider of current and future land SDR systems of the Israeli Defense Forces and was selected to supply E-Lynx systems to additional modern armed forces.

MTU AERO ENGINES EXTEND MICHAEL SCHREYÖGG'S CONTRACT FOR NEXT 5 YEARS

Michael Schreyögg will continue as the Chief Program Officer for MTU Aero Engines for another five years. This extension of contract was done by the Supervisory Board of the company considering Michael's vast experience will help the company tide through the on-going difficult times.

"We are pleased that we can continue in these difficult circumstances to rely on the many years of MTU and industry experience of Michael Schreyögg and his strong network with customers and partners," said Supervisory Board Chairman Klaus Eberhardt.

Schreyögg has been a member of the MTU Executive Board since July 2013 and at the company since 1990. As Chief Program Officer he oversees program management, marketing and sales and the global service locations of MTU.

MARC RIVEST APPOINTED AS GENERAL MANAGER OF BOMBARDIER'S DALLAS CENTRE

Marc Rivest is appointed as the General Manager of Bombardier in its award-winning service centre in Dallas. With an experience of over twenty year in Bombardier Aviation Customer Experience team Marc has honed his leadership experience by holding multiple operational roles in Canada, the United States and abroad, making him ideally suited to lead Bombardier's world-class Service Centre in Dallas.

"I am extremely pleased to have Marc leading our Dallas Service Centre team and working to improve the efficiency and quality control of this important customer service facility," said Jean-Christophe Gallagher, Vice President and General Manager, Customer Experience, Bombardier Aviation. "Marc is keenly focused on his objectives of reducing aircraft turnaround time and increasing overall customer satisfaction, and I know he will work tirelessly to provide the best service experience for our customers."

Marc has held a number of key customer-facing roles within Bombardier, including that of Customer Account Manager at the Laurent Beaudoin Completion Centre in Montreal; Manager, Pre owned Aircraft Maintenance in Dallas; and most recently, Manager, Field Service for Western North America and Latin America. He also holds a degree in Aircraft Maintenance, starting his aviation career as an aircraft mechanic, giving him a unique perspective in understanding the essential needs of Bombardier customers.

This key strategic appointment builds on Bombardier's on-going commitment to providing customers with the best service experience in the business aviation industry.

With major Service centre expansion projects in Singapore, London and Florida, on-going enhancements to its product offerings, MRT teams, parts services and more, the Bombardier Customer Experience team continues to provide the support experience customers demand and deserve.

International CALENDAR

MRO BUSINESS TODAY

2020

12-13 Aug
9th Civil Avionics International Forum 2020
Shanghai, China

13-14 Aug
2nd Connected Aircraft China Congress 2020
Shanghai, China

08-10 DEC
The MEBAA Show
DWC, Dubai Airshow Site, UAE

2021

16-18 FEB
Saudi International Airshow
Thumamah Airport, Riyadh,
Saudi Arabia

17-19 FEB
International Aviation & Aerospace Expo Indonesia (IAE 2021)
Jakarta, International Expo Indonesia

22-23 JUN
Aviation Festival Asia 2020
Suntec Convention Centre,
Singapore

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