MRO BUSINESS TODAY

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AME's-Enter the world of Virtual Reality, Augmented Reality and crXoss Reality (XR)

The training industry is adopting increasing innovative solutions through collaborations and adaptations to address the challenge of the shortage of AME's.

Aircraft Maintenance Engineering, a job that practically involves dirtying your hands with oil and grease, toiling in the hot sun, pouring rains, or harsh winds – Be alert, lest an AOG situation arises, and get the aircraft back in the skies, in a safe and airworthy condition. The AMEs work in the shadows, away from the limelight and sparkle of the aviation industry. It is one of the most crucial jobs in the aerospace sector and the AME has to sign the certificate of release to an aircraft after completing its checks, only then can an aircraft take off. "The job of an AME is not a bed of roses; it is extremely challenging. It requires sharp precision, vigilance, and an analytical mind. The real satisfaction comes when you sign a certificate of release to an aircraft after completing its checks," she further adds," but it comes with a lot of responsibility," says Neetu Sharma, AME from Air India Engineering Services.

The AME forecast and Global Shortage

As the aviation industry steadies itself

Image Courtesy: Inlusion

from the aftermath of the pandemic, training, and supply of AME's remains a critical question to maintain a sound aviation ecosystem. According to Boeing, about 626,000 new maintenance technicians will be needed over the next two decades to maintain the global commercial fleet.

The Airbus Global Market Forecast also predicts the need for over 700,000 new aircraft maintenance technicians and engineers by 2040. There will be a massive demand for aircraft maintenance technicians and engineers over the next 15 to 20 years, but the risk of shortages is real," says Christophe Ponnet, the maintenance training operations director for Airbus Customer Services. "This is due to such factors like the retirement of today's aging maintenance personnel, the COVID-19 pandemic's effects on hiring and training, as well as less enthusiasm for a job that may not have esteem as being a pilot."

The shortage of AME's was already an impending question prior to the pandemic, the situation continues to grow worse as the operators try to replace new technicians and engineers with the ones that have left or will soon exit the industry through mandatory retirement, early retirement, recent layoffs and furloughs, and ongoing attrition.

The Opportunity

According to Oliver Wyman, for the maintenance, repair, and overhaul (MRO) sector, the market is being redefined by a fleet in transition, in part because of higher numbers of retirements of aircraft due to entering a period of intensive MRO expenses. MRO demand should recover to pre-COVID levels by 2024, but annual growth in the second half of the 10-year forecast period will be 2.8 percent. By 2030, MRO demand is expected to reach USD 118 billion, 13 percent below the pre-COVID forecast of USD 135 billion.

The global aviation industry will need to keep a sharp focus and engage in collective efforts to build a robust, diverse talent pipeline through more educational outreach and recruitment, development of new pathways to aviation careers, investment in early-career learning opportunities, and deployment and adoption of more efficient learning methods. Opportunities for aspiring aviators will abound while operators will face stiff competition in recruiting and retaining top-tier talent.

The gradually evolving AME training industry

The training industry is adopting increasing innovative solutions through collaborations and adaptations to address the challenge of the shortage of AME's. Many training providers have transitioned their offerings to online and virtual formats where possible, allowing students to continue their learning safely and remotely. Immersive technologies, adaptive learning, and flexible distance learning methods have allowed the training pipeline to remain intact while evolving how training is delivered. Continued investments in these technologies will likely lead to a long-term fundamental shift in how training is conducted.

Online or Virtual Training
The rising need and demand of Virtual Training (VR)

With the rising demand for AMEs across the world, a large number of training schools have already started operations to meet the global demand. However, due to a lack of infrastructure, it is practically impossible to give real-life training to students on the actual fleet. "In countries like India, not at all training schools today are adequately equipped to provide on-job training to students and most of the training schools are not authorized to provide on-job training to students as per DGCA," said Ajendra Singh, who worked as a GM at JAYANTI AVIATION PRIVATE LIMITED in India.

Besides the only viable way to practice so far was by using a real aircraft.

An aircraft maintenance trainee could only pass the AME exam by performing repairs and maintenance under an experienced instructor. However, this module was not only costly due to the expense of access to aircraft and materials but also dangerous due to the trainee's inexperience. A newbie with only classroom training, unfamiliar with the physical aspects of the work, could potentially waste materials or injure others, and could even completely ruin an airplane.

This is where virtual training comes into the picture. VR gives a safe environment in which a student can hone their skills, letting them run through a maintenance scenario multiple times until the process is familiar.

Advantages of Virtual Training

Virtual Training offers flexibilities like experimentation with equipment bays by which students can remove and install components in real-time. A fully functional virtual flight deck and virtual aircraft are needed for a technician to train. This not only reduces cost but also improves overall operational efficiency. As per a survey by Research and Markets, the VR-powered maintenance training is expected to reach USD 3319 million by 2024 from 403.3 million in 2018. Thus, the market is promising and worldwide adoption is already underway. Applications include virtual maintenance trainers that present 3D training scenarios to students. This will equip the students with better real-life, high-risk situational knowledge.

There's also the challenge of keeping mechanics' skills fresh. Consider a situation wherein an aircraft comes in with a very specific engine defect. What are the chances that a mechanic can remember how to fix it? Especially if the mechanic was trained three years back. Using Virtual reality in such a scenario gives newcomers additional practice so they can get through their mandated training faster, and also serves as a refresher for mechanics already on the job.

Practical Application - A student from the Singapore School of Mechanical & Aeronautical Engineering developed a project with SIA Engineering, that simulates aircraft walk-around checks to help trainees identify defects on an aircraft. 3DSmax and Unity are used to create this immersive and interactive VR simulation. This environment provides trainees with practice at their convenience without any negative consequences to the actual aircraft and hangars.

Types and Styles of Virtual Training
The VR experience has two modes:

1- Training Mode - In training mode, the trainee is guided with visual hints and can restart, make mistakes, or watch the task being completed automatically

2- Examination Mode - In examination mode, various curveballs are thrown in to ensure the trainee can react appropriately to a variety of circumstances. The end result is a trainee with hours of practice, without the expense and danger of operating on real aircraft.

Major players developing VR technology

L3 Harris' – Virtual Maintenance Trainer

L3 Harris has developed a simulation-based training tool used by airlines, MROs, universities, and training centers around the world called the virtual maintenance trainer. It helps reduce training costs and increase operational efficiency by teaching any number of aircraft malfunctions on demand. Maintenance technicians can now explore the aircraft using the fully functional virtual flight deck and virtual aircraft. They can navigate equipment bays and remove components to see the results in real-time. The software reduces training time spent in the actual aircraft and migrates more of the training course to the controlled classroom setting. Students can be free from environmental distractions and real-world limitations, allowing them time to focus on instruc-

Image Courtesy: Inlusion

tor-led scenarios and procedure training. With the convenience of the classroom, they can practice troubleshooting procedures, study systems theory, conduct simulated 'return to service' tests, and so much more.

CAE's maintenance systems

On the other hand, CAE's maintenance training systems apply blended-media techniques to create an immersive and adaptive learning environment for producing highly qualified technicians. Across a range of domains and platforms, CAE translates virtual learning directly to the physical world, taking maintenance trainees from the classroom to the field faster and more cost-effectively—and once there, keeping them proficient and productive.

CAE Simfinity Virtual Maintenance Trainer

CAE's Virtual Maintenance Trainer (VMT) integrates theory with practical skills and delivers a high-fidelity immersive simulation of aircraft systems. A laptop/desktop training system, CAE's VMT provides a learning environment for aircraft maintenance technicians to gain practical experience in aircraft systems and maintenance tasks. Web access to the simulation software allows training anytime and anywhere for review, refresher, and recurrent training.

Hardware-based Maintenance Trainers

CAE's hardware-based part-task trainers (PTTs) allow maintenance trainees to perform hands-on maintenance diagnostics and testing without having to train on the actual aircraft or ground combat vehicle. When coupled with CAE's Virtual Maintenance Trainer (VMT), maintenance technicians can accomplish up to 100 percent of their maintenance training prior to working on the actual platform. With this blended approach to virtual and hands-on maintenance training, hundreds of maintenance tasks can be performed enabling maintenance technicians to be well-prepared when they maintain and support an actual aircraft or ground combat fleet.

Inlusion's XR training module

With airplane mechanics in high demand, FL Technics wanted to strengthen the training for training personnel and perhaps even shorten training time. While regulations require each trainee to spend a certain number of months in training, trainees might not get to practice on certain aircraft due to lack of availability. And even if a trainee spends the required number of months, he or she might not get sufficient practical experience in every aspect of a mechanic's job. Hence, they collaborated with Inlusion, (an SME working on real-time training solutions and creating a great VR training experience) to develop new, innovative virtual reality training experiences on aircraft repair and maintenance. For over a decade, Inlusion had been exploring XR (cross reality), which includes VR and Augmented Reality or AR. The result of Inlusion's collaboration with FL Technics is a VR training system for the Boeing 737, where mechanics practice opening the thrust reverser using procedures from the aircraft's manual.

While developing the VR experience, the Inlusion team came across an unforeseen challenge: during the procedure, the mechanic has to lie down and slide under the

aircraft. Such a move could be awkward and uncomfortable for a user, especially if wearing a tethered headset. After many discussions with FL Technics, Inlusion landed on the approach of lifting up the virtual aircraft for that portion of the training.

FL Technics hopes that such training modules will one day reduce the mandated three-month training period for mechanics to three weeks.

De-icing in VR

The procedures for de-icing and anti-icing are another natural fit for aviation maintenance training in VR. These procedures require the crew to spray specific quantities of liquid chemicals onto the aircraft, lifting a hoist with one arm while spraying with the other. Besides precision, speed is also a factor, since the procedure is often performed on an aircraft close to its take-off time.

In practicing these tasks, the inexperienced crew could mishandle the spraying equipment, spray too much or too little liquid, or fail to follow safety procedures. Cost can be a big issue—the price of liquid for each de-icing/anti-icing procedure is around USD2,500, and the wrong amount of liquid in the wrong place can ruin an aircraft completely.

During De-icing training, the instructor can start the trainee off with the most basic scenario, then add complications—bad weather, an incorrectly positioned sprayer, a truck riding into the spray zone—until the trainee can deal with many different situations. By the time the crew member uses an actual sprayer on a real airplane, he or she has had the opportunity to solve problems and build muscle memory in a variety of optimal and non-optimal scenarios.

Airbus is using VR technology through its portable RHEA kit which comes with a virtual reality headset, touchpads, and infrared cameras that allow its mechanics to inspect and repair aircraft in a completely immersive environment.

ICAO's steps up the accelerator with DCTP

Recently, ICAO and the Government of Singapore signed a three-year extension to the Developing Countries Training Programme (DCTP). The agreement will permit the DCTP to continue augmenting the capabilities of aviation professionals in lesser developed countries, thereby improving the States' overall levels of air connectivity through improved ICAO compliance.

A projected 340 training professionals are expected to benefit from the DCTP's extension, which will be implemented through the ICAO Technical Cooperation Bureau.

His Excellency S Iswaran, Singapore's Minister of Transport and Minister-in-charge of Trade Relations said, "Capacity building is critical in rebuilding our aviation workforce and preparing them to manage the demands of the future. Singapore has long been an advocate of human capital development, which enables opportunities to extend the benefits of aviation to all States. The renewal of the Singapore-ICAO Developing Countries Training Programme for another three years will support the growth and development of future aviation leaders and professionals."

Thus, training methodologies continue to progress toward a holistic approach that focuses on competencies rather than prescriptive tasks. As commercial operators and training providers look toward the future, we expect to see continued investments in artificial intelligence, machine learning, and mixed reality technology that will help tomorrow's students more quickly, efficiently, and effectively close their knowledge gaps. This will lead to a better, safer, and more efficient aviation industry.

Becoming an aircraft maintenance engineer takes lots of time and dedication and you will need to obtain relevant engineering qualifications. If you excel in maths, physics, and technology subjects, like engineering science, and enjoy problem-solving this could be the career for you.

Recently, the entire aerospace industry celebrated Aviation Maintenance Technician Day to celebrate those who have contributed a lot to an airplane's everyday operations and focus on innovations that improve its use and features.

We at MRO Business Today respect and appreciate the hardworking AME's across the world and thank them for our safe flying.

Courtesy : *with inputs from – Boeing, Airbus, Oliver- Wyman, ICAO, FL Technics, Air Baltic, Inlusion, L3Harris and CAE.*

"Demand for maintenance engineers is at an all-time high" – Vallair CEO Gregoire Lebigot

Vallair partners with Aviation Academy encouraging the development of a skilled MRO workforce in France.

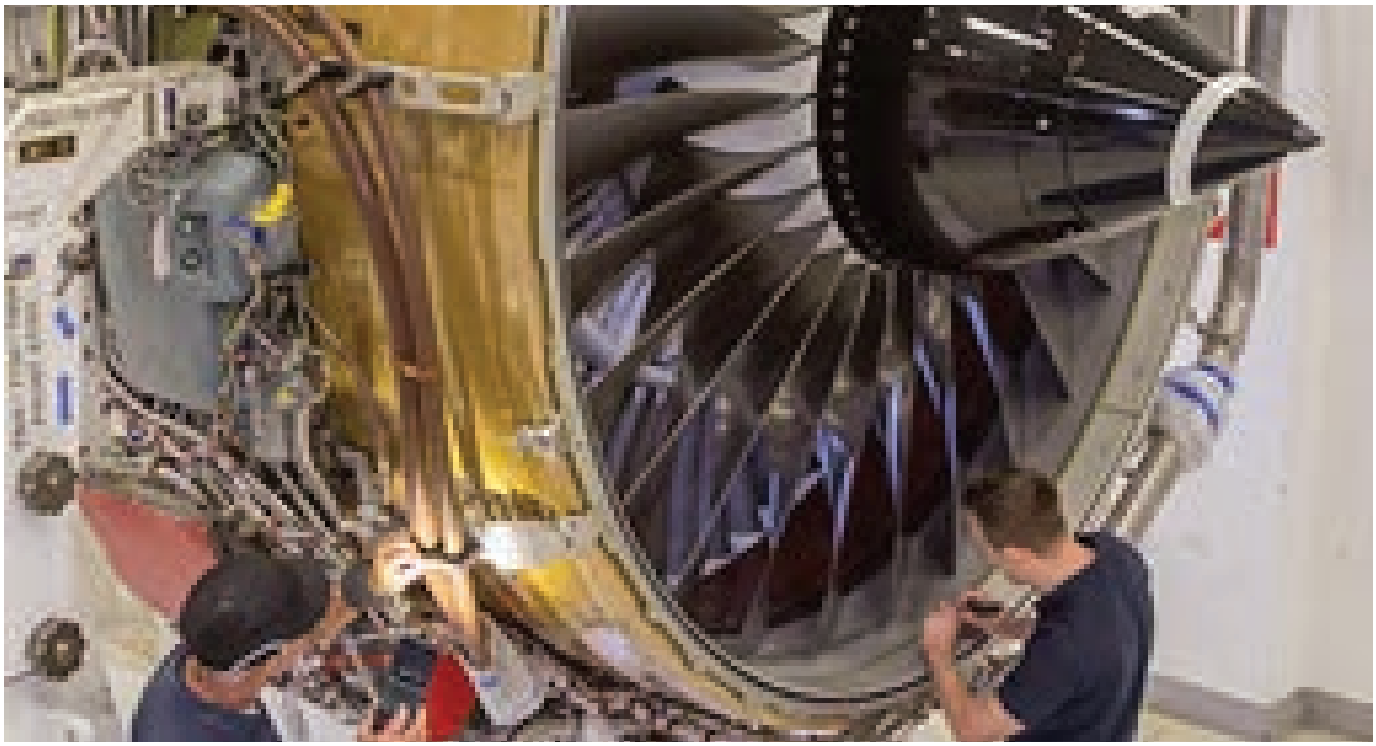
Vallair has partnered with Aircraft Academy, an EASA Part-147 approved organization providing online and classroom-based aviation training for Airbus & Boeing aircraft engineers and mechanics. This move will see Vallair augment its existing aviation capabilities to incorporate comprehensive EASA Part-147 training and will be centered around its new state-of-the-art hangar in Châteauroux, France, and its established modern MRO facility in Montpellier.

Grégoire Lebigot, CEO & President of Vallair said, "This is a significant milestone for Vallair. We are continually striving for excellence and to provide the best service to our customers. This is a fantastic opportunity for Vallair as well as for the mechanics and engineers of the future. Being able to nurture and support a highly-skilled workforce will not only benefit Vallair but the aviation industry in general. It is our vision to promote Châteauroux as a center for aviation excellence and to demonstrate the wealth of talent and skill which exists in the heart of France. This ambitious and proactive move by Vallair will see the Company recruit and train 300 mechanics and engineers over the next five years."

Stephan Gaworski, CEO of Aircraft Academy, celebrates the partnership with the Vallair group. "I believe this collaboration will lead to significant transformation and opportunities for our students. By having an aviation partner such as Vallair, not only will Aircraft Academy be afforded continued growth, but also direct access to worldwide markets. This is a unique opportunity for us and our students and will make aviation maintenance training more accessible to future generations."

The program will enable all candidate students to receive theoretical tuition towards their EASA Part-147 approval license either in person or online, with all practical training provided in Vallair's Châteauroux and Montpellier facilities. As part of the training, students will benefit from hands-on experience for A320, B737NG & A330 aircraft, supporting various engine types, sheet-metal, as well as being eligible for an EASA Part 66 on the aforementioned aircraft.

Vallair has invested significantly in the Centre Val de Loire Region and has partnered with Aircraft Academy as well as other educational establishments in the Châteauroux locality. Vallair is an active participant in the aviation industry in France and belongs to two significant clusters: Aerospace Valley and Aérocentre. Occitanie-based Aerospace Valley has over 500 affiliated companies and is responsible for some 120,000 jobs in the aviation and space flight industries. Aérocentre, the regional center of excellence in Centre-Val de Loire, works to develop and sustain the aeronautical sector across the area with over 120 member organizations. Vallair stands as one of their key players over the last fifteen years.



The program will enable all candidate students to receive theoretical tuition towards their EASA Part-147 approval license either in person or online.

Airbus Competence Training (ACT) for Academy, comprehensive training tool

The ACT for Academy solution encompasses a 3D virtual Airbus aircraft, including a virtual cockpit, virtual engines, and a walk-around trainer.

To meet the aerospace industry demands of a shortage of skilled workforce Airbus has initiated the Airbus Competence Training (ACT) for Academy, a comprehensive training module. The ACT for Academy solution encompasses a 3D virtual Airbus aircraft, including a virtual cockpit, virtual engines, and a walk-around trainer; scenario-driven exercises to perform typical aircraft systems maintenance tasks; and general familiarisation using Airbus courseware to present and explain the aircraft. This version of the ACT suite is already deployed at the home bases of airline customers around the world to type qualify their mechanics on Airbus-built aircraft in the fleets.

Christophe Ponnet, the Maintenance Training Operations Director for Airbus Customer Services said, "Airbus already is collaborating with a number of organizations, schools, and universities around the world. We're looking to widen this network to help partners prepare for the new generation. The added benefit is to reinforce the partners' academic prestige with their use of an official Airbus solution."

By applying the Airbus solution, training schools can be brought up to the qualification levels required by national and international airworthiness authorities. It can support the setting up of a school's maintenance training organization and the associated documentation; define recommendations for classrooms, labs, and other facilities; along with training of the management, quality, and instructor teams.

The attempt by Airbus is to support academies in bringing initial and basic training efforts upstream in the education path. This initiative includes providing access to modern training and supporting material, responding to aviation's highly digital environment along with new teaching solutions that are more attractive to a new generation

Bringing the Aircraft into the Classroom thanks to an all-in-one solution

including:
- The ACT Trainer software
- Airbus developed courseware
- AMIC course instructors' proficiency
- Software & courseware updates
- Turnkey on-site deployment
- Advisory service
- Continuous support

Airbus Aircraft Family: A320 | A330 | A350

Virtual Engine Run-Up

This includes a stand-alone 3D Virtual solution co-developed with Air France Industries KLM E&M to train the maintenance staff on engine run-up procedures.

A combination of theoretical and practical training for initial & recurrent training enables to:
- Reduce needs for FFS slot
- Monitor trainees' progress in real-time
- Simulate normal & abnormal events related to the main engine systems and functions
- Run optimized scenarios focused on the need-to-know
- Enhance efficiency & knowledge retention

Available for A320 Family & A350 across the Airbus Maintenance Training network and at the Customer's base.

Maintenance & Structure Training

Develop the competencies all along with a career for Safe & Efficient operations

Airbus proposes its Maintenance & Structure trainingservices to support you from the development of an upstream suitable program for the future maintenance technicians and engineers to the aircraft type related training and the continuation/recurrent training for experienced mechanics.

One of the best aspects of this is Airbus adapts the Maintenance and Structure training services to the needs and expectations of the industry thanks to flexible, comprehensive, and tailor-made training solutions. These can be in one of the Airbus training centers, on-premises with Airbus instructors, or in any remote training solutions with training material.

Basic Training

Skills, knowledge, and attitude from the start

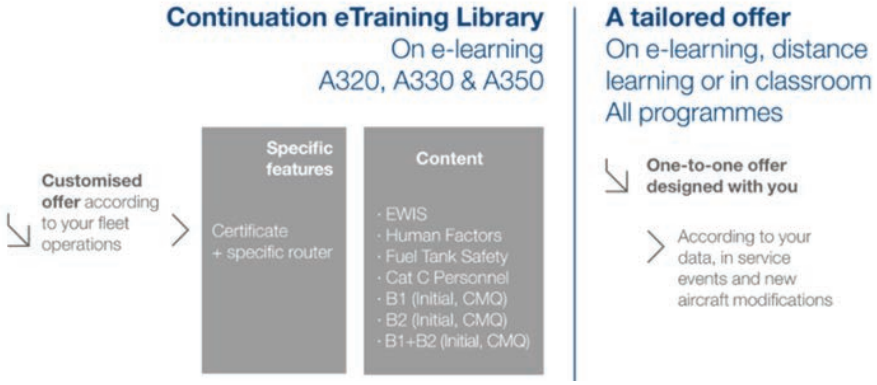
Airbus is committed to supporting Part 145 to get proficient resources from Schools and Universities.

Airbus Training at the early stages of the educational program has the following advantages –
- To develop new mechanics' aeronautical skills and competencies from the beginning
- To ensure new mechanics are easier to 'plug and play' into your maintenance organization
- To ensure suitable and qualified manpower availability for your operations
- And thus, reducing your additional training effort for new mechanics

fleet operations
- Tailored offer designed to suit the needs

Benefits
- Train WHERE, WHEN and HOW you need it
- Benefit from the latest fleet standards integrated into your courses
- Monitor the training progress of your technicians
- Save time and expenses, while keeping the same level of excellence
- Download your Airbus certificate directly from the e-Learning platform

Structure Training



Continuation Training

Focus on the right skills for Safe & Efficient operations

Airbus has customized offers to support internal staff in their career path to ensure the right skills to effectively perform their maintenance operations in accordance with the Airworthiness Authorities requirements.
- To refresh on aircraft technical aspects and on aircraft maintenance procedures (e.g troubleshooting)
- To learn from the latest in-service experience feedback (fleet-wise, regional or customer-specific) in order to anticipate any potential unforeseen situation and react accordingly with maximum efficiency
- To comply with regulations by regularly updating on EWIS, Fuel Tank Safety (FTS), or Human Factors (HF)

From customized to tailored a complete offer –
- Type Specific Recurrent training course
- Maintenance eLibrary according to

From the damage assessment to the repair workflow

Leveraging on the OEM expertise Airbus has designed the structure courses to ensure competent personnel at every stage of the damage assessment & repair workflow and to optimize training time & costs.

Benefit from learning paths adapted to staff's profile & qualifications to ensure safe & efficient operations and:
- Reduce Training time thanks to a Tailored modular approach per job profile
- Optimize competence management
- Ensure safer repair embodiment and fatigue life
- Improve dispatch reliability and in-house capability

Airbus Aircraft Family: A220 | A320 | A330 | A340 | A350

Key features
- Modular Training
- Learning by doing: Well-balanced combination of theoretical / tutorial and practical sessions in shop environment

• Practical on real A/C parts in shop
• Training material based on Airbus Design Office recommendations

Airbus has predicted a need for over 700,000 new aircraft maintenance technicians and engineers by 2040, however, the risk for staff shortage is real and the reasons are many, retirement of today's aging maintenance personnel, the COVID-19 pandemic's effects on hiring, and training, as well as less enthusiasm for a job that may not have esteem as being a pilot.

The maintenance experts at Airbus are continuously working to improve the services portfolio by integrating the latest training concepts and teaching techniques devoted to operators and MROs. The training modules are specially developed to answer the most basic questions and benefit from Airbus quality standards. This enables the reduction of training costs and optimizes operational reliability.

'Aircraft Maintenance Training is a part of our DNA - Vallair

By investing in education, we are proactively investing in the future of aviation maintenance.

Châteauroux and the Centre-Val de Loire region of France have a rich history in aviation dating back to 1936 when Marcel Dassault established his first aircraft manufacturing facility. Vallair stands as one of the key players of aviation in the region over the last fifteen years. General Manager of Vallair talks passionately about the love of aviation maintenance, the facilities available at their facility for efficient training of students and his advice to youngsters considering a career in AME, in an Exclusive Interview with **Swati.k .**

Q - You have recently partnered with Aircraft Academy, and you have invested significantly by partnering with other educational institutions in the Centre Val de Loire Region. What was the idea behind this initiative? What motivated you to take this extra step towards the development of a skilled workforce?

Ans - There is, and always has been, a rich aviation history in Châteauroux and the Centre-Val de Loire region dating back to 1936 when Marcel Dassault established his first aircraft manufacturing facility. Training is part of our DNA at Vallair. Having invested in the new state-of-the-art giant hangar adjacent to our existing facility, as well as announcing the introduction of widebody heavy maintenance and cargo conversions, the investment in training a skilled workforce was a natural progression. By investing in education, we are proactively investing in the future of aviation maintenance.

Q - Vallair is an active participant in the aviation industry in France and belongs to two significant clusters: Aerospace Valley and Aérocentre. Can you tell our readers about your role in these clusters?

Ans - Occitanie based Aerospace Valley has over 500 affiliated companies (including Airbus, Air France Industries and Dassault Aviation) and is responsible for some 120,000 jobs in the aviation and space flight industries. Aérocentre, the regional centre of excellence in Centre-Val de Loire, works to develop and sustain the aeronautical sector across the area with over 120 member organisations. Vallair stands as one of their key players over the last fifteen years. I am, myself, am actively involved in the Aérocentre cluster on a personal level.

Q - What happens to the students once they pass out of the Academy? Does Vallair absorb these students?

Ans - A percentage of our students are already employed by Vallair, and we will be using this comprehensive training programme to upskill our existing workforce as well providing training for external candidates. We recognise the global demand and are attempting to support the global aviation industry in attempting to rebuild this crucial, skilled workforce.

Q - Can you tell us about the overview/ status of aerospace maintenance engineers, their jobs, career opportunities, and quality of life in France?

Ans - We are looking to build a passion for aviation, and hope that this training programme, and the opportunities and rewards that it can afford, will encour-

age people to choose a more vocational path for their children. We want parents and students to choose aviation safe in the knowledge of the life-long specialist careers which lie ahead.

Q - What are your views on the current global crisis of Shortage of skilled AMEs?

Ans - The pandemic had a negative impact on admission numbers for aircraft maintenance apprenticeships and many MROs lost people through redundancy, furlough and early retirement. Industry leaders were forced to make some difficult decisions and many older aircraft maintenance professionals decided to retire rather than wait out the uncertainty. As we slowly emerge from the pandemic, there is a noticeable lack of workforce, which means that we will not be able to get as many aircraft in the air.

Q - Are the training schools today adequately equipped to provide on-job training to students?

Ans - I cannot comment on other training establishments, however our programme will enable all candidate students to receive theoretical tuition towards their EASA Part-147 approval license either in person or online, with all practical training provided in Vallair's Châteauroux and Montpellier facilities. As part of the training, students will benefit from hands-on experience for A320, B737NG & A330 aircraft, supporting various engine types, sheetmetal, as well as being eligible for an EASA Part 66 on the aforementioned aircraft.

Q - How according to you can we mend the situation of an impending global crisis of skilled labour shortage in coming years?

Ans - The only way in which we can begin to remedy this shortfall is to encourage a new generation to consider a career in aviation, where as a mechanic, and engineer or technician, the possibilities and opportunities within the aviation maintenance industry are many and varied. This needs to start at school level, and be presented as a serious, rewarding, skilled life-long career.

Q - What advice would you give to the young students trying to pursue a career in AME.

Ans - As an aircraft mechanic, many doors are opened for you, including the possibility of experiencing different countries and cultures. This is an international profession with a global demand that is only set to increase over the coming years. This is the time to seriously consider a career in aviation!

Sarsan Aviation Academy, "You Dream, We make it Happen"

The biggest challenge as an Aircraft Maintenance Trainer is the access to updated literature.

Sarsan Aviation Academy (SAA) is a recently launched venture of the Sarsan Group of Industries which has been in the UAE for over two decades. SAA was established in 2021 with the aim of providing quality accessible education in the field of aviation for everyone. It is based in the heart of Dubai, only a stone's through away from the iconic Dubai International Airport (DXB). SAA strives toward helping students from all over the world envision their dream into a reality as well as contributing to fulfilling the shortage of qualified aircraft maintenance engineering personnel in the gulf region. In an attempt to get to the roots of AME training basics, their challenges, and the quality of training, we got to speak with **Ayesh Shanah, the Managing Director of Sarsan Aviation Academy, Dubai. Below are some of the excerpts from the Exclusive Interview.**

Q - What are the current challenges in the job as an Aircraft Maintenance Trainer?

Ans - The biggest challenge as an Aircraft Maintenance Trainer is the access to updated literature. Over time aircraft have evolved with the advancement of technology, unfortunately, the literature found nowadays does not reflect the continuous updates of the aircraft. Another challenge is meeting the requirements for on job training.

Q - What was your inspiration behind choosing this slightly off-track field of training/honing young minds and moulding them towards aircraft maintenance? Was this decision taken by choice or by chance?

Ans - I have always had an inclination to teach after I finished my Bachelor's. Having worked in the field for over 10 years I learned a lot and was given the opportunity to work on various aircraft. During my time there I met many young minds and freshers like myself that lacked guidance and proper training. Therefore, I made the decision to go into training to try and help develop the new aircraft technicians and prepare them for real life.

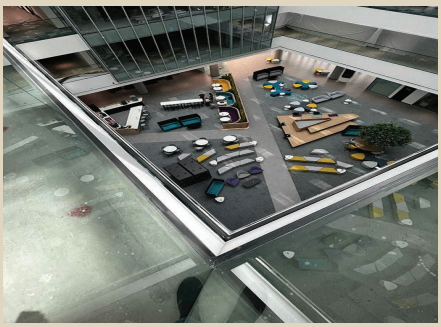
Q - What are your views on the current global crisis of Shortage of skilled AMEs?

Ans - The shortage can be easily tackled by providing the right salary package and incentives to attract more workforce. There are many AME students out there who have some amount of experience but aren't able to get a job through which they can sustain themselves. Aircraft Maintenance is a labour-intensive job, it can't be performed by Robots nor they can assist the team in the actual removal/ installation of components. Yes, maybe AI can help them troubleshoot but we are far from that. Nowadays students choose a field of study knowing the working environment and salary. AME's are to work in all kinds of environments be it heavy rain, cold, or the hot weather of the afternoon. The schools in South East Asia are churning out AME but as the student enters the field, they get discouraged from pursuing it further due to the salary package and little to no incentives. The schools too sometimes do not train their students well and the hand skill training would now become the job of

the OJT provider which shouldn't be the case. The company is then discouraged to take on any students due to these incidents which harm other students to come.

Q - Are the training schools today adequately equipped to provide on-job training to students?

Ans - Some schools are, some of course aren't. Many airlines have opened their own AME school and hence the students can benefit by getting a chance to work in the Airline at the start of their career but at the same time, these schools charge a lot and would provide the same education as others albeit the difference being that the student gets to work in an airline. Schools nowadays only look at getting a student and not worrying about how to make the student employable. Schools need to pick such OJT partners which are in need of manpower to meet their growing business so that the students after having worked there for a year can be absorbed by the company. Sarsan Aviation currently has partnered up with multiple airlines in order to meet this requirement and we are constantly growing our network to give a proper chance to every learner that graduates from our organization.



Q - What is one unique or different facility that your training school provides apart from the competitor schools?

Ans - Our facility is fully equipped with state-of-the-art tools and equipment. We were also able to acquire a Soloviev D-30 turbine engine in its totality. The engine was serviceable and was to be transported to Russia, but due to the war at the moment they weren't able to. The engine has its thrust reversers intact along with many other LRU's which would enable our students to get a much better understanding of the various components of a Turbine engine. We have also acquired a Piper Archer II aircraft which had suffered a minor crash and was written off. The aircraft has a working original piston engine which would enable our students to explore and learn about the Piston engine. The cockpit of the aircraft is intact with all the various instruments used enabling our students to get a better understanding of it. We at Sarsan believe in providing the highest quality of teaching not only from a theoretical point but also from a practical point. We believe in guiding the student from the moment they enter to the day they are employed.

Q - How according to you can we mend the situation of an impending global crisis of skilled labor shortage in coming years?

Ans - The industry needs to reach out to more and more students at the school level and introduce them to the field of AME. Most of the students I have counseled didn't know about AME 6 months before they joined the course. Engineering was and still is a prestigious job, but the harsh environment is what sets people off and by people, I mean parents. They then discourage their child from pursuing a career in AME for which I do not blame them but this is a cycle I have seen. Enlightening students from a young age and explaining to them the possibilities of having a career as an AME rather would be the most suitable approach. This would give them the opportunity to choose what suits them best.

Q - What advice would you give to the young students trying to pursue a career in AME.

Ans - Patience is key! I can't emphasize enough. Aviation takes time and it should. A person needs to understand the aircraft in and out and then can be given the charge of it and to do so takes time. I would also advise the students to understand and acknowledge what they want from their life. Do they want to work with giant metal birds of the sky or behind a desk? A clear motive would then enable them to pursue what they have set out for and achieve their goals.

The skilled AME workforce shortage is critical and very real - Boyd Parsons, CCAA

There is an urgent need for change in how and where entry-level training is conducted.

In our attempt to find out the challenges of AME Maintenance Trainers, the issue of skilled AME workforce, and the ways to tackle it, Swati. K spoke to Boyd Parsons, the Director of Corporate Services at the Canadian Council for Aviation and Aerospace. The Canadian Council for Aviation & Aerospace (CCAA) is dedicated to ensuring the Canadian aviation and aerospace industry has enough workers with the right skills to meet industry needs. CCAA works with all segments of the industry to develop tools and solutions for specific skills and demographic needs of the industry. CCAA has two main areas of focus: skills development and industry demographics (supply and demand for particular skills). Read the complete Interview for more.....

Q - What are the current challenges in the job as an Aircraft Maintenance Trainer?
Ans - It depends on the type of training. On-the-job training requires a lot of coordination and it always competes with the work plan whereas aircraft "Type" training is usually well planned and structured. That being said, I would say keeping up with all the latest and new technologies and getting the time for hands-on experience is a challenge for many.

Q - What was your inspiration behind choosing this slightly off-track field of training/honing young minds and molding them towards aircraft maintenance?
Ans - To be honest, as a teenager, I always wanted to be a high school teacher and went to university to become a teacher. It was an impromptu decision to change my career path toward aviation.

Q - Was this decision taken by choice or by chance?
Ans - By choice.

Q - What are your views on the current global crisis of Shortage of skilled AMEs.

Ans – It's not good. The shortage is critical and very real and many organizations are obliged to turn away work and are restricted in their ability to grow due to the shortage. I believe there is an urgent need for change in how and where entry-level training is conducted. I believe ab initio training should take place in the workforce, using standard instructor/employer-led training.

Q - Are the training schools today adequately equipped to provide on-job training to students?
Ans - I would say the training schools are challenged to provide adequate on-the-job training for two main reasons; outdated curricula colleges are required by Transport Canada to follow, and the lack of opportunity for the student to gain work experience in the workplace, while they are learning.

Q - What is one unique or different facility that your training school provides apart from the competitor schools?
Ans - Canadian Council for Aviation and Aerospace (CCAA) is a not-for-profit organization. While we provide corporate training, such as human factors and troubleshooting skills, our focus is on addressing industry labor needs. Our latest offerings include newly updated National Occupational Standards, a micro-credential program, competency assessment tools, an industry "Competency Dictionary" and a Digital Logbook.

Q - How according to you can we mend the situation of an impending global crisis of skilled labor shortage in coming years?
Ans - By introducing competency-based employer-led training, allowing organizations to hire local talent, and providing the training in-house. Of course, the training would need to meet a national standard such as the standards CCAA offers for the 29 industry occupations. Colleges all have waitlists but still can only produce about 25% of the AMEs needed. The industry needs to implement its own training programs for ab initio and upskilling if we want to find a solution to the labor shortage.

Q - What advice would you give to the young students trying to pursue a career in AME.
Ans - Beyond being the best they can be, I would suggest they look for a coach/mentor and soak up as much of their knowledge and skill as possible.

MRO BUSINESS TODAY

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Business is firm, intact, and booming at Chicago Rockford Airport

AAR Corp. has signed a multi-year agreement in 2021 to perform airframe maintenance on United Airlines' narrow-body aircraft fleet at AAR's MRO facility at RFD.

Boeing is all set to move its global headquarters from Chicago to Arlington, Virginia outside Washington D.C. According to Boeing, Virginia marks strategic sense for its global headquarters given its proximity to its customers and stakeholders. However, it is said that Boeing will maintain a significant presence in Chicago and the surrounding regions with less office space. Then what happens to the customers and stakeholders in Chicago?

As per the sources, cost cuts and a more hands-on corporate culture had raised questions about Boeing's future in Chicago, and in turn, the broad direction Boeing intends to take as it tries to regain its stride.

History

Boeing first moved its headquarters to Chicago from Seattle in 2001, after 85 long years, to 100 North Riverside Plaza in Chicago's West Loop neighborhood after reporting a massive loss of USD 1.2 billion. Four years later, Boeing bought a 36-story, 770,300-square-foot tower from the Florida State Pension Fund for USD 200 million. It has been Boeing's HQ ever since.

Booming business at Chicago Rockford International Airport

The move by Boeing is not expected to affect the Chicago Rockford International Airport, as per the reports. Business is firm, intact, and booming at Rockford Airport as AAR Corp. has signed a multi-year agreement in 2021 to perform airframe maintenance on United Airlines' narrow-body aircraft fleet at AAR's MRO facility at RFD. This agreement with AAR and United Airlines to use the facility as a maintenance hub for United's Boeing 737 fleet and other aircraft will run through 2025. Post the agreement, AAR added about 250 maintenance technicians in an attempt to ramp up the workforce.

Mike Dunn, Chicago Rockford International Airport executive director said, "I cannot comment on behalf of AAR. We have not been notified of any plans involving United pulling its business with AAR. To the best of my knowledge, the business is firmly entrenched in Rockford."

Greg Dellinger, AAR Corporation Outreach & Government Affairs Director said, "AAR's multi-year maintenance contract with United is on solid ground, regardless of whether Boeing leaves Chicago. We do not expect any impact. AAR employs hundreds, and we continue to actively recruit and hire certified aviation maintenance technicians."

Mammoth MRO facility at Chicago Rockford International Airport

Chicago Rockford International Airport (RFD) has a strategic MRO hub featuring dual 91.5m span hangars built by Rubb Building Systems. This MRO facility operated by AAR is expected to service an Airbus 380 and Boeing 747 at the same time with everything from heavy maintenance checks to modification services. The 200,000-square-foot facility operates 24 hours a day and has greatly expanded the airport's infrastructure. The two 10-story tall hangars, which are 300 feet by 300 feet can service all aircraft platforms including check-level, heavy maintenance visits, and modification services for a variety of narrow and

wide-body aircraft. It can accommodate the following

- 2 Boeing 747s, or
- 8 Boeing 737-800s / Airbus 320 variants, or
- 4 Boeing 787s, or
- 2 Airbus A380s

Designed for next-gen aircraft, it is the only hangar in the United States not linked to an airline, capable of servicing the world's largest passenger airliner.

Jeff Polsean, Economic Development Manager, Chicago Rockford International Airport, said "Even an extreme blizzard won't slow the efficiency of the Rockford MRO. Now we have overcome severe funding challenges, 500 skilled workers enjoy natural light in ideal working conditions at the 24-hour-per-day facility, delivered by Rubb Building Systems, operated by AAR."

This one-of-a-kind building is truly mammoth as an MRO facility. It's impressive from the inside and practical for all kinds of repair. The Rockford structure

represents a high point in Rubb Buildings Systems' history in highly efficient membrane-clad commercial aviation hangars. It is a step-change in hangar efficiency, and Rubb's largest hangar ever.

Strategic location

AAR chose Rockford due to its central geographical location, highly trained workforce, cost-effectiveness, and access to a robust warehouse and distribution network. Rockford, Illinois is also a hub for aerospace and aviation technology, with Boeing, Woodward, UTC Aerospace Systems, and GE Aviation all having facilities nearby.

Aviation Maintenance Training

Attracting a world-class MRO required a steady pipeline of talent, so RFD partnered with Rock Valley College (RVC) to build a new and larger aviation maintenance training school at the airport. The RVC Aviation Maintenance (AMT) Program was designed to promote economic development and position a more strongly educated and aligned workforce for the region. AAR, as well as local companies like Woodward, Collins Aerospace, B/E Aerospace, and GE Aviation, have benefited from the trained workforce.

Gulfstream plans to expand St. Louis Downtown Airport facility to meet customer demands

To support this expansion, Gulfstream St. Louis will grow its workforce in the areas.

Gulfstream Aerospace has robust expansion plans at its St. Louis Downtown Airport facility. The expansion will increase the production of custom cabinetry and exterior paint capacity for Gulfstream's in-demand large-cabin aircraft. To support this expansion, Gulfstream St. Louis will grow its workforce in the areas of cabinet makers and finishers, upholsterers, aircraft paint technicians, manufacturing engineers, operations engineers, certification inspectors, and additional support functions.

Mark Burns, president of Gulfstream said, "We are seeing an extraordinary amount of activity across our sites to support Gulfstream's current and future fleet, including customers new to business aviation and long-time customers looking to redesign their existing aircraft. As we strategically expand our service network, we are also increasing capacity for components of new aircraft at sites like St. Louis that have already been producing world-class interior furnishings for Gulfstream Customer Support."

The Gulfstream St. Louis Service Center opened in 2017 as a maintenance, repair, and overhaul facility and comprises 11 hangars and more than 637,457 square feet of shop and support space. Located at the St. Louis Downtown Airport in Cahokia, Illinois, Gulfstream St. Louis is a certified U.S. Federal Aviation Administration and European Union Aviation Safety Agency Part 145 repair station. Employees there can service large-cabin and mid-cabin aircraft registered in the U.S. and European Union countries.

Sheltair invests millions at Savannah International Airport facility to meet demands

The hangar expansion will allow Sheltair to accommodate Savannah's growing business sector and contribute to long-term economic development of the airport.

Sheltair Aviation recently expanded its hangar at Savannah International Airport by 30,000 square feet.The multi-million-dollar investment will enhance Sheltair SAV's FBO services while fulfilling the growing need for additional aircraft storage in the area.

Todd Anderson, Chief Operating Officer of Sheltair said, "At Sheltair we are focused on investing in new facilities to better serve the general aviation industry across our network. This hangar expansion will allow us to accommodate Savannah's growing business sector while actively participating in the long-term economic development of the airport and the community."

Equipped with 28-foot-tall doors, Sheltair's large cabin class-size hangar expansion has been designed to accommodate the latest generation of aircraft, such as the Gulfstream G650 and Global 7000. The USD 5.5 million project is anticipated to be completed in the fourth quarter of 2022 and will support both based aircraft and transient operators in Savannah/Hilton Head International Airport.

Greg Kelly, Executive Director of the Savannah Airport Commission said, "We greatly appreciate Sheltair's decision to once again invest millions of more dollars in aviation development here at our airport. We are fortunate to have a great partnership with them as they are one of the top FBOs in the Country. We look forward to continued success and growth with Sheltair in the years to come."

This facility's tenants and guests will enjoy Sheltair Savannah's premium FBO services, which the 2022 AIN FBO Survey ranked number one in the region and top 20% in the nation. Sheltair's FBO base also offers its guests access to a state-of-the-art terminal building, U.S. Customs, executive board rooms, and a convenient location just 15 minutes away from flourishing downtown Savannah.

Skyways Technics expands MRO capabilities at Subang Airport, projecting it as turboprop hub in Asia-Pacific

This will strengthen the Subang Airport's position as a regional aviation and aerospace center of excellence.

Skyways Technics Group and Subang Airport recently signed an MoU, to expand its regional Southeast Asia hub at Subang Airport with full-fledged end-to-end MRO facilities. The Skyways Technics expansion plan includes a line and base maintenance hangar, component repair workshops, a parts distribution center, and Aircraft on Ground (AOG) support to service the Indo-Asia Pacific and Oceania regions.

This collaboration marks Skyways Technic's commitment to supporting Malaysia Airports to further strengthen the Subang Airport's position as a regional aviation and aerospace center of excellence. Subang Airport is poised to become APAC's preferred focal point for ATR and regional aircraft MRO activities and has attracted MYR 1.0 billion in international and domestic investments via active engagements as part of their 5-year Subang Airport Regeneration initiatives.

According to Randhill Singh, Head of Kuala Lumpur International Airport Aeropolis for Malaysia Airports, "Skyways Technics is the prominent international player in the industry for ATR and regional aircraft maintenance. Skyways Technics' intention to continually expand its capabilities and grow in South East Asia is in complete alignment with our plans for Subang Airport. The Subang Airport Regeneration strategy seeks to position Subang Airport as the turboprop hub in the Asia Pacific and meets the demands of ATR maintenance in the region. MRO activities in this region are set to grow by 150% over the next 10 years, totaling USD 21.7 billion. Subang Airport is more than ready to host Skyways Technics Group's expanded regional headquarter that will leverage on ATR operators and MRO Centres, allowing it to cater to the region's demand."

Skyways Technics Group CEO Benjamin Nielsen expressed the company's strong desire to strengthen and grow its Asia Pacific presence, "Building on 7 years of spare parts support for regional aircraft operators and lessors throughout the Asia Pacific, we feel the time is right to offer ever-increasing services from our home at Subang Airport, where we have felt welcome since the very first day. Thus, it is our great pleasure to continue this journey, and are honored to do so with our partner and friend, Malaysia Airports.

Skyways Technics has over 30 years of experience in the maintenance of regional aircraft such as ATR. It was established its Asian headquarters at Subang Airport in 2014 with a workshop to repair structural components.

FEAM's base maintenance facility at CVG received FAA Part 145 repair station approval

Due to this certification, FEAM can now provide increased safety throughout overall operations and streamline processes specific to CVG's dual ramps.

FEAM recently achieved an important milestone by receiving FAA Part 145 Repair Station approval at theirbase maintenance facility at Cincinnati/ Northern Kentucky International Airport (CVG). The benefits of FEAM operating as an independent repair station means increased safety throughout overall operations, thanks to ongoing oversight by the local FSDO, as well as, the ability to quickly streamline processes specific to CVG's dual ramps and expansive base operation.

FEAM specializes in and supports a large contingent of Air Cargo Operators at CVG with a total workforce of over 250 Aircraft Maintenance Technicians and Aerospace Professionals. FEAM recently announced the construction of a second wide-body hangar at CVG that

exemplifies its ongoing commitment to the region and to the air cargo industry.

Chief Operating Officer & Accountable Manager, Wayne Sisson said, "There is incredible synergy generated by FEAM and one of our largest customers collaborating under the same FSDO. We have also had tremendous support from the local FAA team; we believe their partnership will support FEAM in maintaining our standards of excellence in safety and quality as we continue to expand."

Mr. Jeff Slaughter, Cincinnati's FSDO Manager, said, "It's not only a big deal for FEAM, but also for us here at the FAA. It is very exciting to issue FEAM their Air Agency Certificate on behalf of the Federal Aviation Administration, allowing FEAM to operate as an independent repair station here at CVG. Congratulations to everyone involved on a job well done!"

FAA Inspectors Mike Isham and Larry Ward of the Cincinnati FSDO conducted the Performance Assessment Phase 4 Inspection for the CVG Part 145 Repair Station Certificate and awarded the FAA Repair Station Certificate [CRS# GNDR920D]. The certificate at CVG marks FEAM's second repair station approval, with the first at their Base Maintenance Facility at Miami International Airport.

Air Works enters into strategic partnership with Mach Technik to offer line maintenance at DXB

The development marks the maiden expansion of Air Works' International Line Maintenance business to foreign shores.

As part of the agreement, Air Works will extend its Quality System to induct Mach Technik's certifying staff within its Quality Assurance (QA) System.

Air Works entered into a long-term services agreement with UAE-based Mach Technik Aircraft Maintenance to provide International Line Maintenance services at the Dubai International Airport. The development marks the maiden expansion of Air Works' International Line Maintenance business to foreign shores. With a pan-India presence across 19 international airports, Air Works Group is already the biggest provider of Transit or Line Maintenance services to foreign carriers [airlines and cargo] operating in India.

Mr. D Anand Bhaskar, Managing Director & CEO, Air Works Group said, "From certifying our maiden flight in 2011 at Trichy – our first Line Maintenance station – to certifying nearly 3000 flights a month, we have come a long way. Our engagement with Mach Technik, Dubai represents a significant strategic development, as it is a testament to Air Works' decade-long investment in developing an enviable Line Maintenance service portfolio comprising expert resources, relevant certifications, and technologies. To be able to offer our services at leading international airports such as Dubai, is a matter of immense pride, given that it is one of the world's finest and busiest airports attracting the best of carriers. Dubai will therefore be ideal to test our capabilities and readiness and I am confident that together with the team at Mach Technik, Air Works will improve prevailing service benchmarks, delivering enhanced value to customers."

Mr. Mohammed Al-Humaidi, Chairman, Mach Technik Aircraft Maintenance said, "Our collaboration with Air Works – India's leading and most loved MRO and one of the region's finest aviation services groups – will help us offer global standards of service to discerning clients – both Indian and global. With burgeoning air traffic, Dubai and other leading regional airports represent a cradle of opportunities, and beginning with Line Maintenance, we intend to leverage our mutual synergies not just within the UAE but the entire Middle East region and beyond it."

As part of the agreement, Air Works will extend its Quality System to induct Mach Technik's certifying staff within its Quality Assurance (QA) System.

As international travel resumes, the agreement will enable Air Works' Middle Eastern team to serve a significant portion of its clients in Dubai, together with the opportunity of using their experience to acquire new regions as well as international customers.

Strengthening partnerships – Menzies Aviation to look after ground handling for Icelandair in UK

Menzies will provide ground handling services like passenger, ramp, cabin cleaning, and de-icing.

Menzies Aviation renewed its contract with longstanding customer Icelandair to provide a full suite of ground services across four UK airports. The three-year agreement will see Menzies provide passenger, ramp, cabin cleaning, and de-icing services at Heathrow (LHR), Gatwick (LGW), Glasgow (GLA), and Manchester (MAN) airports

Miguel Gomez, Executive Vice President – Europe, Menzies Aviation said, "We are proud of the strong relationship we have cultivated with Icelandair in the UK, and that we have been chosen by the airline yet again to provide ground services at four UK airports. Our teams have gained a deep understanding of their operations over the past 15 years and look forward to continuing our support of Icelandair over the years to come."

This renewal further strengthens Menzies' position as a key partner for Icelandair in the UK. They began working together at LHR in late-2006 and expanded to MAN and GLA in 2009 with LGW following in 2016, in line with Icelandair's expansion in the UK and growing trust in Menzies.

Menzies Aviation is a global aviation logistics specialist.

Jet Aviation strengthens its MRO network in Zurich, offers line maintenance

Jet Aviation expanded its Zurich operation in June 2021 via the acquisition of the former ExecuJet Zurich FBO facilities.

Jet Aviation has appointed AOG Engineer Michael Luethi to manage the station with the support of its global AOG team as required.

Jet Aviation will be offering a line maintenance service through its new hangar facility in Zurich. The facility is authorized to perform line maintenance on a range of business aircraft, including the Gulfstream series, with immediate effect.

Situated at Jet Aviation's Zurich North FBO, the facility will initially receive approval under an extension of the company's Basel site authorizations prior to undergoing an audit for Line Maintenance Repair Station approval by the Swiss Federal Office of Civil Aviation (FOCA).

Cyril Martiniere, Jet Aviation's VP MRO Services Europe & GM Basel said, "We are delighted to extend our European MRO network to Zurich. We saw an opportunity to better meet the needs of our clients through the strength of our MRO network and this facility is our way of delivering the highest benefit to business aviation owners and operators in the region."

Jet Aviation expanded its Zurich operation in June 2021 via the acquisition of the former ExecuJet Zurich FBO facilities. The acquisition added a multifunctional, state-of-the-art terminal for passengers and crews, a 2,500 square-meter hangar adjacent to the terminal, a second near-5,000 square-meter arched hangar, and two approximately 5,000 square-meter private ramps to the company's existing Zurich footprint.

The Zurich line maintenance station supports services for a range of business aircraft, including the Gulfstream series. Jet Aviation has appointed AOG Engineer Michael Luethi to manage the station with the support of its global AOG team as required.

Stevens Aerospace opens new facility eyeing increasing customer demand

The new facility is 57,000 square feet with provisions for an additional 40,000 square feet hangar space.

Stevens Aerospace and Defense Systems recently opened a new MRO facility in Nashville, Tennessee at the Smyrna/Rutherford County Airport. The facility provides 57,000 sf of operational space with provisions for an additional 40,000sf of hangar space, allowing room for future growth.

Kenyon Blacker, general manager of Stevens' Nashville facility said, "This new purpose-built facility gives us the additional space we needed to hire additional technical and support staff and expand our customer base. The layout of the facility will also greatly improve efficiency, allowing us to better serve our customers."

Stevens held a successful grand opening event earlier this month and started work on customer aircraft the following day. Stevens' Nashville operation performs maintenance and avionics work on a wide range of aircraft and specializes in King Air, Hawker, and Cessna Citation airframes.

Advanced design, new powerplant, hybrid capability & sustainability packed into ATR's 'EVO'

The ATR 'EVO' family to be even more economical and sustainable.

With EVO, airlines can serve thin routes more profitably, and communities can benefit from more connectivity, more essential services, and more economic development.

ATR is all set to launch the next generation of its best-selling family of regional aircraft by 2030, the ATR 'EVO'. It will have advanced design features and a new powerplant with the hybrid capability to offer customers the next generation of ATR aircraft. It will encompass innovative technologies to enable significant improvements in performance, economics, and sustainability. Incorporating a new eco-design that includes new propellers and enhanced cabin and systems, it will remain a two-engine turboprop that can be powered by 100% Sustainable Aviation Fuel (SAF).

ATR CEO Stefano Bortoli, said "Our next generation of aircraft will be a step forward in responsible flying through further incremental innovation. When it enters the market, the new ATR 'EVO' will pave the way toward a decarbonized future for aviation. Key benefits include a 20% overall fuel improvement and 100% SAF compatibility. This means that the aircraft will emit over 50% less CO_2 than a regional jet when powered by kerosene. When using 100% SAF, its emissions will be close to zero."

Fabrice Vautier, ATR SVP Commercial, said "The ATR 'EVO' will be even more economical, with double-digit operating cost savings achieved in particular through 20% lower fuel burn and 20% overall maintenance cost reduction. This means airlines can serve thin routes more profitably, and communities can benefit from more connectivity, more essential services, and more economic development. Our aim is to continue to offer customers and society ever more inclusive and responsible air transportation."

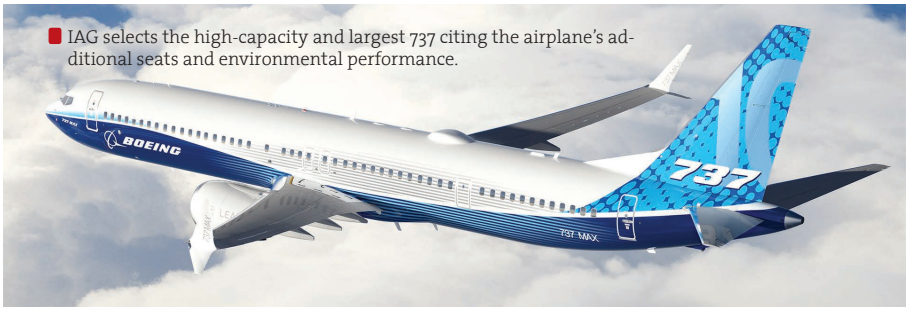
Stéphane Viala, ATR SVP Engineering, added "We have issued a Request for Information to the main engine manufacturers for the development of the new powerplant that will combine existing and future generation engine technology. The ATR 'EVO' will feature improved performance in terms of time to climb and an enhanced cabin, with increased use of lighter bio-sourced materials. Recyclability will also be at the heart of our new design."

In the coming months, ATR will work with airlines, engine manufacturers, and systems providers, with the aim to launch the program by 2023.

IAG to undergo short-haul fleet renewal with fuel-efficient 737 jets

This contract will enable IAG to configure the airplane with up to 200 seats, increasing revenue potential and reducing fuel consumption.

International Airlines Group placed a firm order of about 150 737-8-200 and 737-10 airplanes. The largest model in the family, the 737-10 seats up to 230 passengers in a single-class configuration and can fly up to 3,300 miles. The fuel-efficient jet can cover 99% of single-aisle routes, including routes served by 757s. This contract will enable IAG to configure the airplane with up to 200 seats, increasing revenue potential and reducing fuel consumption.



IAG selects the high-capacity and largest 737 citing the airplane's additional seats and environmental performance.

Luis Gallego, IAG´s chief executive said, "The addition of new Boeing 737s is an important part of IAG´s short-haul fleet renewal. These latest-generation aircraft are more fuel-efficient than those they

Cont pg 21

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will replace and in line with our commitment to achieving net-zero carbon emissions by 2050."

Stan Deal, president, and CEO of Boeing Commercial Airplanes said, "With the selection of the 737-8-200 and larger 737-10, IAG has invested in a sustainable and profitable future, as both variants will significantly lower operating costs and CO_2 emissions. Today's agreement for up to 150 airplanes, including 100 options, is a welcome addition of the 737 to IAG´s short-haul fleets and reflects our commitment to support the Group's continued network recovery and future growth with Boeing's unrivaled family of airplanes."

The 737 incorporates the latest-technology CFM International LEAP-1B engines, Advanced Technology winglets, and other improvements to deliver the highest efficiency, reliability, and passenger comfort in the single-aisle market. The 737 family of airplanes is on average 14% more fuel-efficient than today's most efficient Next-Generation 737s and 20 percent more efficient than the original Next-Generation 737s when they entered service.

Set for launch, ITA Airways took delivery of its first fuel-efficient A350

ITA Airways' A350 cabin is configured in a two-class layout, with 334 seats.

ITA Airways, Italy's new national carrier, has taken delivery of its first A350, becoming the 40th operator of the type. The aircraft, which is on lease from ALAFCO, landed for the first time in Italy at Rome Fiumicino Leonardo da Vinci International Airport recently.

The A350's clean-sheet design features state-of-the-art aerodynamics, fuselage, and wings made of advanced materials, plus the most fuel-efficient Rolls-Royce Trent XWB engines. Together, these latest technologies translate into unrivaled levels of operational efficiency and sustainability for ITA Airways, with a 25% reduction in fuel-burn and CO_2 emissions compared to previous generation aircraft.

ITA Airways' A350 cabin is configured in a two-class layout, with 334 seats comprising 33 full lie-flat bed Business and 301 Economy seats.

ITA Airways' A350 will start operations in early June 2022 to serve the new intercontinental routes that the company will open in the summer season from Rome Fiumicino to Los Angeles, Buenos Aires, and Sao Paulo.

In December 2021, the Italian carrier firmed up an order for 28 Airbus, including 18 Single Aisle (seven A220s, 11 A320neos) and 10 A330neos, the latest version of the most popular A330 widebody airliner. Moreover, ITA Airways already leased more than 50 additional new generation Airbus aircraft, six of which are A350s, to complement their fleet modernization.

Japan Air Commuter takes delivery of its 9th fuel-efficient ATR 42-600

The latest 42-600 will undertake the first leg of its ferry flight from Toulouse to Japan with a blend including Sustainable Aviation Fuel.

ATR recently delivered its 9th ATR 42-600 to Japan Air Commuter adding up to a total of 11 ATR to the fleet. The latest 42-600 will undertake the first leg of its ferry flight from Toulouse to Japan with a blend including Sustainable Aviation Fuel (SAF).

In countries committed to reducing carbon dioxide emissions and preserving biodiversity such as Japan, ATR aircraft have proven to be successful: they connect communities and businesses across the Japanese archipelago in the most responsible way.

Stefano Bortoli Chief Executive Officer of ATR said, "We are proud to see that ATR aircraft continue to support our Japanese long-standing customer JAC in its mission to connect communities and

remote places, as well as propelling the local economy. Thanks to the unrivaled versatility of our aircraft and its responsible performance, ATR aircraft are the perfect choice for this country".

This new ATR 42-600 sports a specific livery representing the leaves of Kaikouzu, the tree of Kagoshima Prefecture. These leaves are the symbol of the preservation of nature in this country. It represents JAC's commitment to connecting areas that coexist with nature, operating the lowest CO_2 emissions and most fuel-efficient aircraft. The Japanese airline flies Yakushima, Amami Oshima, Tokunoshima, and Okinawa, which are all World Natural Heritage Sites, as well as many other areas rich and diverse in wildlife.

MAGicALL to supply motors to Airbus ambitious CityAirbus NextGen eVTOL

Airbus' eVTOL prototype will be equipped with a tailored version of the MAGiDRIVE, the newest generation of electric motors manufactured by MAGicALL.

The electric motors will contribute to the seamless architecture of Airbus' eVTOL prototype, thanks to a fully integrated solution.

Airbus has selected MAGicALL to supply the motors of the electric vertical take-off and landing (eVTOL) aircraft CityAirbus NextGen. Airbus' eVTOL prototype will be equipped with a tailored version of the MAGiDRIVE, the newest generation of electric motors manufactured by MAGicALL.

The detailed customization of CityAirbus NextGen's electric propulsion system will enable the prototype to benefit from features that will match its unique design, making for increased performance and reliability. The lightweight brushless motors that will be integrated into CityAirbus NextGen are a product of innovative design and manufacturing: they incorporate the latest generation of MAGicALL's magnetics and power electronics technology.

Joerg P. Mueller, Airbus' Head of Urban Air Mobility (UAM), said: "We are proud to benefit from the experience of MAGicALL to develop the electric propulsion system of CityAirbus NextGen. The electric motors are a major component of our prototype: the high torque and low weight of the MAGiDRIVE, as well as its robust design, will be highly beneficial for the overall efficiency of the aircraft."

The electric motors will also contribute to the seamless architecture of Airbus' eVTOL prototype, thanks to a fully integrated solution comprising both the motor itself and its control system, as part of a fully enclosed, air-cooled propulsion unit.

MAGicALL is a leading supplier of electric motors based in California. Founded in 2004, the company benefits from a proven expertise in custom magnetic and power electronic solutions for the aerospace industry. MAGicALL also contributed to the development of the motors that powered Airbus' tilt-wing UAM technological demonstrator, Vahana.

Since 2014, Airbus has been exploring how electric propulsion can help drive the development of new kinds of aerial vehicles. In September 2021, the Company unveiled its fully-electric eVTOL prototype, CityAirbus NextGen. Airbus is developing a UAM solution with eVTOLs not only to offer a new mobility service but also as an important step in its quest to reduce emissions in aviation across its product range.

MRO
OF THE MONTH

You never know, your MRO could be the next rising star at 'MRO OF THE MONTH'

MRO BUSINESS TODAY

MRO Business Today has started a brand-new feature called MRO of the Month, in which we select one MRO across the globe every month and highlight its work, the latest technologies involved, its team, and the major milestones it has achieved across the years.
If your MRO is the one, here's your chance to make the world see it, by presenting your products and services on a platter.

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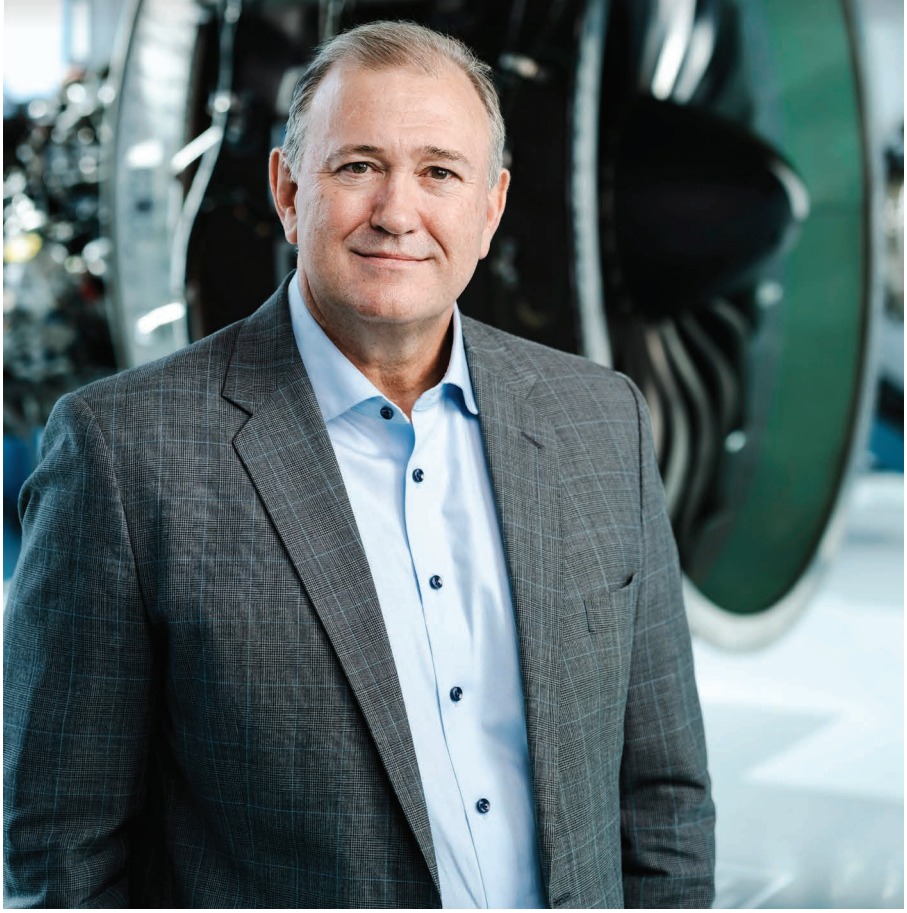
Pratt & Whitney – '100 percent SAF, A challenge, an opportunity to innovate and lead by example

SAF isn't new to us, we've been regularly testing our engines with blends of up to 100% SAF for well over a decade.



Pratt & Whitney successfully tested the GTF Advantage engine configuration with 100 percent sustainable fuel. The test took place in their West Palm Beach facility thus marking a key step on the road toward 100 percent SAF operation of GTF-powered aircraft. The test is also a key element of an extensive development program to ready the GTF Advantage for entry into service in 2024, by validating the engine's performance on 100 percent SAF in thrust transients, starting, and operability. Congratulating Pratt & Whitney on this remarkable feat, we have selected them as our MRO of the Month. We got a chance to speak to Graham Webb, chief sustainability officer at Pratt & Whitney, about this milestone's inspirational story.

Pratt & Whitney knows and recognizes the critical role played by SAF for the aviation industry to reach net-zero CO_2 emissions by 2050. Hence supporting greater usage of SAF is a core part of our strategy for making aviation more sustainable, says Mr. Webb. While SAF is already certified for use across all of the commercial engines at blends of up to 50% with conventional Jet A/A1 kerosene, there is growing interest in enabling future use of up to 100% SAF blends, for the obvious reason that the more SAF is used, the greater the life-cycle emissions reduction attained.

"We know SAF like the back of our hand," he continues "SAF isn't new to us, we've been regularly testing our engines with blends of up to 100% SAF for well over a decade, and we have also played an active role in defining the standards which allow SAFs to be widely used today. But with our continued focus on sustainability and addressing the causes of climate change, the urgency of increasing SAF use and availability has never been more important," he further adds.

Surprisingly, Pratt's team at the West Palm Beach facility faced no particular operational challenges while using alternative fuel blends compared to standard kerosene. The team tested the engines with various SAF blends up to 100 percent so frequently over a decade, that SAF tests have now become a routine for them.

With our GTF Advantage engine tests, we used 100% Hydroprocessed Esters and Fatty Acids Synthetic Paraffinic Kerosine (HEFA-SPK) derived from renewable sources, and during the test, the engine operated exactly as expected, explains Mr. Webb.

The global demand for GTF engines is on the continuous rise, in such a scenario the teams at Pratt are striving day and night to achieve their target of 100 percent SAF engine, currently, they are in the engine development and validation program for the GTF Advantage engine, targeting customer deliveries by early 2024.

Challenge of scaling up the SAF production!

However, the challenge arises with it comes to procuring enough SAF for the tests. "SAF today is simply not as easy to get hold of as regular kerosene," comments Mr. Webb. "SAF production accounts for less than 0.01% of global fuel demand today. The 100% HEFA-SPK for our GTF Advantage™ test was supplied by World Energy. Our collaboration with fuel producers like Air bp will help secure access to SAF to meet our testing needs going forward," he further adds.

Today SAF represents just 0.01% of global aviation fuel use. The expectation

is to reach 2% by 2025 and 5% by 2030. The goal in the United States is to double this 2030 figure. The policymakers need to create a level playing field between fossil fuel and SAF to de-risk investment and bridge the initial green premium until economies of scale kick in and bring the cost of SAF down.

Commenting on the scaling up of SAF Mr. Webb replies, "We support policy measures like the SAF Grand Challenge and the Blender's Tax Credit in the USA, which will help stimulate supply and demand, reducing the cost differential between SAF and conventional jet fuel. Ultimately, we need to see investment fast if we are going to hit the 2030 targets, as SAF plants take 5-6 years to build and commission."

SAF + efficient propulsion system = sustainable aircraft

SAF is a key enabler for sustainable aviation and is critical to reaching net zero emissions by 2050. The main reason for this is that it provides a "drop-in" solution, which is fully compatible with the existing global aircraft fleet and fuel infrastructure. So considering that tens of thousands of aircraft flying today will still be in service in the decades to come, a drop in SAFs provides the fastest and most mature solution for reducing their lifecycle emissions, by replacing the need for fossil-based kerosene fuel.

"But our pursuit of SAF as an alternative fuel runs in parallel with ongoing efforts to develop ever more efficient aircraft propulsion systems, which will reduce the industry's overall fuel demand and thus emissions," comments Mr. Webb. "With the GTF, we see the continued potential to improve efficiency beyond the 16% step change this engine family achieved when it entered service in 2016. For this, we are developing technologies to leverage the geared architecture further, such as ceramic matrix composites (CMCs) and hybrid-electric propulsion, which will enable even better efficiency from future engines," he further adds.

Other technologies for net-zero!

"We continue to work on a large number of technologies for our future thermal engines, including the geared turbofan architecture of the GTF which has a long runway for growth and evolution," says Mr.Webb proudly. "For this, we are working to increase bypass ratio with higher gear ratios and increased deployment of composite materials for reducing weight, we are working to increase the temperatures and pressures present in the core of the engine with advanced materials and coatings, aerodynamic, cooling, and sealing technologies," he further adds.

One of the most exciting areas of innovation is hybrid-electric propulsion technology. The teams at Pratt & Whitney are currently working on a hybrid-electric flight demonstrator— in concert with Collins Aerospace and De Havilland Aircraft of Canada—which is targeting a 30% better fuel efficiency and lower CO_2 emissions compared to today's most advanced turboprop engines. We see many

opportunities for hybrid-electric technologies to optimize efficiency and add capability across a range of applications, up to single-aisle passenger aircraft.

Until SAF is more widely available, another important tool for lifecycle emissions reduction is carbon offsetting, or carbon trading mechanisms. Already the use of carbon offsetting has become widespread in the airline industry, and we have seen growing demand from our customers.

"That's why we introduced a carbon offsetting service for business aviation, helicopter, and regional aviation customers offered as part of our Eagle Service™ Plan (ESP™) or Fleet Management™ Program (FMP™). The offsetting service makes it straightforward for operators to reduce their carbon footprint by allocating funds to renewable energy and forest conservation projects around the world," exclaims Mr. Webb.

Hydrogen fuel as a power source for aero engines

Hydrogen holds considerable potential for aviation as an energy-rich and zero-carbon fuel, but it also brings considerable challenges in terms of fuel storage, handling, and production. "Fortunately, we at Pratt & Whitney are very experienced with the properties of this fuel, having worked on various hydrogen combustion and fuel cell technologies stretching back over 60 years," replies Mr. Webb with a sigh.

Current and near-term fuel cell technology capability limits their applications to very small aircraft with limited payload and range. "Our current focus is to develop technologies that could take full advantage of hydrogen's opportunities. This is the goal of our recently announced HySIITE project (Hydrogen Steam Injected Intercooled Turbine Engine), which we are developing with the support of the U.S. Department of Energy's ARPA-E program. Using hydrogen combustion, water vapor recovery, and steam injection, HySIITE aims to achieve a 35% improvement in fuel efficiency and an 80% reduction in NOx emissions for single-aisle aircraft," he adds.

Such a step forward in fuel efficiency could play an important role in making hydrogen economically viable as a fuel source from the standpoint of aircraft

makers and operators.

The propulsion system is of course only part of the challenge with hydrogen. Viable service entry will also depend on incorporating the engine into an aircraft designed to carry hydrogen fuel and having a hydrogen delivery infrastructure available at airports. When asked about his opinion on hydrogen as an alternative to SAF, Mr. Webb says, "We do not believe this should lead to an "either/or" conclusion for using SAF or hydrogen. SAF still has a critical role to play toward net-zero CO2 emissions by 2050. It will take time for the infrastructure to develop to support hydrogen flight at scale. SAF can provide emissions reductions in the interim."

The history of SAF

SAF emerged as a result of industry efforts starting in the early 2000s to develop alternative fuels for aviation. A key instigator was the Commercial Alternatives Aviation Fuels Initiative (CAAFI), a cross-industry organization of which Pratt & Whitney has been a charter member since it began in 2006. Over the following years, ASTM International established the industry-wide specifications for SAF which we use today, and which currently define seven different SAFs for use at blends of up to 50% with regular kerosene. But despite these important recent efforts, it must be said that studies into the use of synthetic fuels in the aviation industry go back decades. For example, one pathway for producing synthetic kerosene today is based on the Fischer-Tropsch process, which was developed in Germany in the 1920s.

"While we will continue our testing program for current and future engines, wider industry action is needed in two main areas. First, industry regulators with support from the OEMs will need to develop, ballot, and release a standard for 100% SAF blends to be used on a "drop-in" basis, making it compatible with existing aircraft and infrastructure," comments Mr. Webb.

Besides this and more importantly, the aviation industry needs to see a significant scaling up in production capacity for SAF beyond the minuscule levels seen today. Governments will need to collaborate with industry partners to optimize the incentives for investment in infrastructure and help reduce the price differential between SAF and kerosene.

SAF is arguably the most important lever for achieving net-zero emissions for aviation, but it's not the only tool at our disposal. "As a leading engine maker, we are also focused on continually improving the efficiency of aircraft with advanced propulsion technologies, to reduce overall fuel demand and emissions. And besides SAF, we are also looking at the potential of other alternative fuels, such as hydrogen, which offer the potential for zero-emissions flight," he explains about the alternative routes to SAF.

The aviation industry's focus has always been on greater fuel efficiency. Fuel is the first or second largest line-item expense for airlines and our customers have always needed more efficient engines.

The challenge is ensuring that airlines can continue to fly their current fleets well into the future while simultaneously reducing their carbon footprint. "That's why we are advocating for public-private partnerships to significantly expand the availability of drop-in SAF solutions today, and to fund the next generation propulsion systems technology. We look at this challenge for what it is – an opportunity to both innovate and lead by example as a means to make positive change," he signs off.

SMBC's acquisition of Goshawk makes it the second-largest global lessor

This acquisition will help SMBC to better serve the customers in a fast-evolving sector whilst also accelerating the growth and delivering significant value for our shareholders.

SMBC Aviation Capital is all set to acquire its rival Goshawk Aviation for a value of USD 6.7 billion. The transaction brings together two strategically aligned and complementary businesses, creating the largest Japanese-owned aircraft lessor and the second largest global player by the number of aircraft. The enlarged business will benefit from a best-in-class portfolio focused on new technology narrowbody aircraft and an industry-leading funding advantage uniquely positioned to capitalize on opportunities presented by the sector recovery.

Peter Barrett, Chief Executive Officer, SMBC Aviation Capital said, "This is the right transaction for SMBC Aviation Capital, allowing us to better serve our customers in a fast-evolving sector whilst also accelerating our growth and delivering significant value for our shareholders. Goshawk is a high-quality business with assets and people that complement our own. The combined business will continue to have a disciplined focus on young, liquid, most in-demand narrowbody aircraft with one of the most environmentally friendly portfolios of any major leasing company together with 261 new generation, fuel-efficient aircraft on order. We are undertaking this transaction at a strategic point in the cycle with a strong recovery building across the global airline industry and we expect the transaction to be accretive to SMBC Aviation Capital's return on capital."

Masaki Tachibana, President, Sumitomo Mitsui Finance and Leasing Co., Ltd. said, "The 2012 acquisition of SMBC Aviation Capital has proven to be very successful and it is now a key strategic business for our group. As we enter this new cycle, SMBC Aviation Capital will be a core component in the growth of our international business. The shareholder is fully supportive of the proposed acquisition of Goshawk, which will further cement the group's position as a leading player in the aviation financing sector."

As part of the transaction, SMBC Aviation Capital will acquire a portfolio of 176 owned and managed aircraft. The combined business will have a portfolio of 709 owned and managed aircraft and an additional $13bn of orders from Boeing and Airbus consisting exclusively of 261 new technology narrowbody aircraft. Aircraft owned by Goshawk that are located in Russia are excluded from this transaction.

SMBC will finance the deal through a combination of debt and equity. Young, narrowbody aircraft, which it hopes to drive its growth, will represent over 82% of the combined fleet.

Dublin-based Goshawk, a 50-50 joint venture between Hong Kong-based conglomerate NWS Holdings Ltd and Chow Tai Fook Enterprises Ltd, was set up less than a decade ago and its shareholders said it was selling at an attractive valuation.

StandardAero acquires EB Airfoils, expands MRO and component repair portfolio

Like StandardAero, customers choose EB Airfoils for its repair quality, quick turn times, and prompt customer service.

StandardAero has signed an agreement to acquire EB Airfoils, a leading fan blade, compressor blade and vane maintenance, repair, and overhaul (MRO) provider for the aero-engine and aero-engine derivative markets.

EB Airfoils is a privately held company operating from two facilities located in Palm City, Florida. With nearly 20,000 square feet of operations and approximately 50 employees, EB Airfoils' unique capabilities and unequaled expertise, have enabled them to become one of very few organizations in the world to be granted OEM source approval or source demonstration for the repair and overhaul of fan blades, compressor blades, and vanes on leading aero-engine and aero-engine derivative platforms.

Russell Ford, Chairman & CEO of StandardAero said, "EB Airfoils expands StandardAero's existing airfoil capabilities at our Cork, Kansas City, and Singapore facilities to provide a more comprehensive offering of hot and cold section airfoils with immediate growth for our component repair capabilities for blades, vanes and other cold section component services to our portfolio. This acquisition marks another strategic initiative to continue to expand our worldwide portfolio of MRO and component repair services. Like StandardAero, customers choose EB Airfoils for its repair quality, quick turn times, and prompt customer service."

EB Airfoils maintains a leading portfolio of source approvals across Pratt & Whitney, General Electric, CFM International, and International Aero Engines platforms and is in the process of receiving additional approvals through source demonstrations. The company's decades of experience and a broad range of repair capabilities have allowed it to establish a steady base of recurring business with OEMs, operators and MRO providers.

SkySelect's eProcurement-as-a-Service solution for quicker leasing transactions

This service will resolve the issues of high demand and capacity constraints and increases aircraft lease transition efficiency.

SkySelect has introduced a service that will resolve the issues of high demand and capacity constraints and increase the efficiency of aircraft lease transition. SkySelect's eProcurement service and technology platform enables accurate and timely lease transitions. Instead of being bogged down by time-consuming manual quotations, SkySelect offers 10x faster price estimates and an automated end-to-end procurement process while providing the knowledge and skills needed to procure materials. This means lessors can execute leases quicker and more efficiently while staying within budget and on time.

Erkki Brakmann, SkySelect CEO said, "We see the importance of lessors within air travel, and we have delivered a new service that will benefit lessors themselves and contribute to excelling the whole ecosystem. Entering the leasing market was a logical next step given their strong presence and value in the aircraft market. With our eProcurement-as-a-Service solution, lessors can transform their aircraft transition services into a quicker and leaner operation."

As air travel continues to recover, there's an increasing interest in leasing aircraft, especially given the aviation supply chain challenges created by the COVID-19 pandemic.

Natalja Lagno, Strategic Purchasing Manager at Magnetic Group, commented on the global supply chain disruptions. She said, "OEMs are confronted with their own supply chain challenges as they face a long backlog of orders to fulfill as well as raw material and manpower shortages."

Facing these increased volumes, leasing companies may not have the internal labor resources, the right skill set, or experience to meet short turnaround times. SkySelect's eProcurement service and technology platform is the perfect tool for lessors to procure parts for aircraft lease transitions faster than ever.

MRO Innovation of the week – Collins Enhanced Flight Vision System for B-737

Texel Air, operating out of Bahrain International Airport, will be among the first operators to receive the new system that includes Collins' EVS-3600, a multi-spectral imaging sensor.

Helps pilots operate safely and efficiently in the most difficult locations and environments.

Last week we saw how BAE Systems unveiled a new lightweight, compact Head-Up Display (HUD) for use in commercial and military aircraft called the LiteWave. Today we will look at Collins Aerospace's Enhanced Flight Vision System (EFVS) for Boeing 737 aircraft.

Texel Air to be the launch customer of EFVS

Collins Aerospace will soon begin the installation of its new Enhanced Flight Vision System (EFVS) for Boeing 737 aircraft. Texel Air, operating out of Bahrain International Airport, will be among the first operators to receive the new system that includes Collins' EVS-3600, a multi-spectral imaging sensor to "see-through" poor visibility and darkness better than the human eye.

George Chisholm, director, Texel Air said, "We are excited to adopt Collins enhanced vision technology on our 737 fleets. Our clients depend on Texel Air for our unique ability to operate a variety of missions in locations ranging from major airports to smaller remote runways. EFVS technology further expands our flight capabilities and allows us to better serve our customers."

Texel Air's fleet of 737 FlexCombi aircraft can be configured to suit a wide range of cargo and passenger flights in the Middle East and North Africa. The EVS-3600 system adds additional capability to these versatile aircraft allowing them to operate safely and efficiently in the most difficult locations and environments.

Increases situational awareness and operates in low visibility

Historically used by military and business aircraft, the newly certified system will allow widespread adoption of EFVS by airlines for the first time. The EVS-3600 uses multiple infrared and visible light cameras providing pilots with a head-up view that exceeds natural vision. When viewed on a head-up display, EFVS increases situational awareness and enables operations in low visibility conditions.

Troy Brunk, president of Avionics for Collins Aerospace said, "EFVS technology is evolving the way airlines can operate their aircraft. 737 operators who adopt EFVS may enjoy a competitive advantage from improved on-time performance, operational cost savings, and reduced carbon emissions."

The new EVS-3600 system, along with the complementary HGS-6000 Dual Head-up Guidance System, will be available for retrofit on both 737 NG and 737 MAX models. Additionally, the new EVS will soon be available as a linefit option for new delivery Boeing 737 MAX aircraft.

About Collins

Collins Aerospace, a unit of Raytheon Technologies Corp., is a leader in technologically advanced and intelligent solutions for the global aerospace and defense industry. Collins Aerospace has the extensive capabilities, comprehensive portfolio, and broad expertise to solve customers' toughest challenges and meet the demands of a rapidly evolving global market.

Flexjet becomes the first Legacy 500 customer to install High-speed Ka-Band on its fleet

Ka-Band is an aftermarket modification provided by Embraer that provides fast, home-like connectivity.

Embraer recently installed Ka-Band as an aftermarket modification on Flexjet on its European fleet. Ka-Band. With this installation, Flexjet has become the first Legacy 500 customer in the world to install Ka-Band that provides fast, home-like connectivity. This new capability is available through a service bulletin for the Legacy 450, Legacy 500, Praetor 500, and Praetor 600 business jets. Embraer also offers the Ka-Band from the factory, as an optional item, for the Praetor 600 and the Praetor 500.

Marsha Woelber, Vice President of Worldwide Executive Jets Customer Support & Aftermarket Sales, Embraer Service & Support said, "We saw demand in the market for Embraer to offer this aftermarket solution and now we can proceed with the installation of this feature in the field. This modification is available to customers who desire this

high-speed capability which provides the best experience and connectivity on board"

The Ka-Band provides high-speed internet access for the fastest in-flight connectivity, enabling customers to access e-mails, exchange files, and stream video content, among other features, allowing several devices connected at the same time.

Flexjet European Managing Director, Marine Eugène said, "With Ka-Band already available on our Praetor 600s in Europe, we know what a tremendous addition it is to the onboard experience for our passengers. They can remain productive in their work or enjoy endless entertainment options as they fly. We were delighted to work with Embraer to add this facility to our Legacy 500s, making us the only large fleet operator in Europe to offer Ka-Band on every aircraft."

Embraer and Flexjet enjoy a long-standing, successful partnership. Flexjet's 2019 order for, and subsequent deliveries of, the Praetor 500 and the Praetor 600 marked the fourth time Flexjet's management team introduced new Embraer aircraft to the fractional market. Previous introductions were the Legacy Executive in 2003, the Phenom 300 in 2010 and the Legacy 450 and the Legacy 500 in 2016.

Oman Air transformed staff travel experience with IBS' SaaS-based iFly Staff

The software deliversa highly configurable, self-service platform for employees to book and manage complex leisure travel, annual leave travel, and duty travel policies.

The partnership with IBS Software has transformed the staff travel experience, simplifying processes to make it far easier for our employees to manage their personal and corporate travel.

Oman Air has partnered with IBS Software to fully digitalize its staff travel program, delivering a highly configurable, self-service platform for employees to book and manage complex leisure travel, annual leave travel, and duty travel policies.

Oman Air overhauled its on-premise legacy system with IBS Software's SaaS-based iFly Staff platform to enable self-service for its employees to easily manage their travel needs. The system has also significantly extended usability, allowing users access via any browser or any Android or iOS device, replacing the legacy desktop-only service. iFly Staff now handles all Oman Air active and retired employee's ID travel, supplementary ticketing, and annual leave ticketing, as well as the staff ticketing of partner companies TRANSOM Catering, TRANSOM Handling and TRANSOM SATS Cargo.

Dr. Khalid Al Zadjali, Senior Vice President Digital, Oman Air said, "Our partnership with IBS Software has transformed the staff travel experience, simplifying processes to make it far easier for our employees to manage their personal and corporate travel. Navigating the intricacies of constantly updating travel policies represents a major win for the whole airline – from both an employee satisfaction and operational efficiency perspective."

Hilal Al Siyabi, Senior Vice President, People, Oman Air said, "The new staff travel system comes as part of Oman Air's

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Airline of the Week – Finnair Automates the aircraft parts procurement with Skyselect

Finnair Technical Services has selected SkySelect to digitize the procurement of aircraft parts and further drive innovation within the flagship carrier. SkySelect is an eProcurement-as-a-Service (ePaaS) platform for aircraft material. It combines people, processes, and technology to enable airlines to digitize and automate parts purchasing for leaner and more asset-light operations.
Unlike any other solution out there, SkySelect's ePaaS uses artificial intelligence to automate the end-to-end purchasing experience from sourcing to ordering and from delivery tracking to invoicing together with transparent analytics and reporting.

How does this work?

The majority of the purchasing process today is manual using emails, portals, and spreadsheets, and each part requirement gets processed sequentially. AI uses logic to make purchasing decisions with far more computing power to process thousands of part requirements simultaneously. SkySelect's AI purchasing system continuously processes thousands of part requirements, automating the entire process from a requirement to sourcing, ordering, and shipment tracking. Sync the demand directly from the Maintenance Information System via a simple plug-in. SkySelect artificial intelligence runs the sourcing and suggests the lowest-priced options and the minimum number of orders. Using real-time delivery tracking to stay connected with the suppliers and freight forwarders, SkySelect automates order transmission and management. The Maintenance Information System is synced with the freshest data, ensuring the teams are in the loop.

In addition to digitizing and automating purchasing, SkySelect gives Finnair Technical Services tools for its sustainable development targets by consolidating and reducing the carbon footprint. The platform helps to combine shipments, simplify logistics and minimize the number of shipments.

Different from competition

SkySelect is the only automated purchasing system for aircraft parts using algorithms and machine intelligence to automate over 90% of the purchasing operations. It speeds up the purchasing process from a part requirement to cutting a PO by 10x or more – literally from days to minutes.

SkySelect brings immediate benefits without the upfront requirement of integrations. With that being said, SkySelect is an end-to-end solution for purchasing, and not a point solution. It can be used in conjunction with other platforms or point solutions because it does what other tools don't do.

Finnair is the flagship carrier of Finland with a fleet size of 80 aircraft. Hence time savings and cost savings can have an exponential impact on the overall success of Finnair Technical Services. Besides, Finnair also prides itself on its innovative and sustainable approaches to air travel. Finnair strives to be carbon neutral by 2045 and cut its net CO_2 emissions by 50% by 2025.

Pete Reinikkala, Finnair Head of Supply Chain Management said, "SkySelect's transformative approach to parts purchasing, using advanced AI algorithms, makes us overall more efficient while aligning with our top-level company strategic cornerstones of innovation and sustainability."

Jeroen van Duren, SkySelect Head of Implementation said, "It's great to work with customers like Finnair who push the entire industry towards efficiency, innovation, and sustainability. We're proud to not only digitize and automate Finnair's parts purchasing process but work together to improve air transportation for everyone involved."

Finnair connects Europe and Asia with the shorter northern route via its Helsinki hub. Founded in 1923, Finnair is one of the oldest continuously operating airlines in the world and a part of the oneworld Alliance.

Sustainability is at the core of its strategy. Finnair's long-term target is carbon neutrality: The carrier wants to maintain the social and economic benefits enabled by air connections, while dramatically reducing the carbon footprint of air travel.

Skyselect currently serves airlines such as Azul, Iberia, LATAM, TAP, and JetBlue. With Skyselect the airline can fully automate up to 70% of their purchasing and capture up to 20% price savings from day one. In addition to cost-saving and improved efficiency Skyselect also helps to mitigate risks brought by supply chain and labor challenges.

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ongoing efforts to enhance the benefits and facilities presented to employees. Self-service and mobile capabilities have significantly improved our employees' travel experience while reducing the workload associated with providing facilities."

Vijay Chakravarthy, Vice President and Head of Staff Travel, IBS Software said, "It has been a privilege to work with the teams at Oman Air, who are constantly striving to deliver new, innovative services to staff and passengers alike. Fully digitizing processes has allowed them the ability to not only provide superior staff travel functionality and ease of use for users but also considerably improve Oman Air's internal operations. We're also proud that the deployment of iFly Staff was managed remotely due to Covid-19 travel restrictions."

The platform's highly configurable business rules engine means Oman Air gains the ability to dynamically update its policies, and create and roll out new policies and processes, thus reducing the lead-time to implement policy changes. This has resulted in significant gains in operational efficiency over the last six months since the system went live.

Syphax signs up for seven Rusada's ENVISION modules for immediate implementation

Syphax Airlines plans to commence flights this summer using a fleet of Boeing 737-800s.

ENVISION software links the airworthiness, maintenance, and flight ops together for airline operators allowing maximum efficiency and visibility.

Syphax Airlines, based out of Sfax–Thyna International Airport has signed up for Rusada's ENVISION software. Syphax has signed up for seven of ENVISION's modules including, Fleet Management for airworthiness, Line Maintenance, Inventory Management, and Flight Operations.

Foued Chokri Ziadi, Chief Operating Officer at Syphax Airlines said, "We will begin the implementation project immediately to ensure the system is live in time for Syphax's first flight. A key aspect for us in our search for a solution was a multi-discipline approach. We wanted one system that could link our airworthiness, maintenance, and flight ops together, allowing for maximum efficiency and visibility across our operations. We also needed flexibility for our future growth, and we found ENVISION to be as capable of managing a fleet of one as it is of one hundred."

Julian Stourton, CEO at Rusada said, "We are delighted to be playing a vital part in the next stage of Syphax's history. The team they have in place possesses a wealth of experience, so the fact that they chose ENVISION as their solution of choice is a great statement. We will ensure that this new beginning ends in a resounding success and look forward to a fruitful partnership in the years to come."

Syphax Airlines plans to commence flights this summer using a fleet of Boeing 737-800s. The airline will operate passenger flights to multiple destinations in Africa and Europe, with a view to continually grow its fleet until 2027 based on the needs of the market.

Austrian Airlines transitions into Lufthansa System' NetLine/Ops++

NetLine/Ops ++ optimizes the daily utilization of flights, increases user productivity and improves airline management.

Austrian Airlines recently transitioned into Lufthansa Systems' NetLine/Ops++ operations control platform for smooth and efficient running of their flight operations. Austrian Airlines is the sixth Lufthansa Group carrier to join the group-wide operations control platform on Lufthansa Systems' Global Aviation Cloud. NetLine/Ops ++ provides detailed information to support customer centricity by focusing on low passenger connecting times. Also, the rotational steering and optimal use of aircraft is further improved. Appreciating this extra steps taken for efficient customer service, we have selected Austrian Airlines as our Airline of the week.

The most comprehensive operations control system

Be it bad weather, missed slots or technical problems on the day of ops can leading to multiple schedule changes. In such situations, fast, cost-efficient and safe operational decisions are called for. During such times, NetLine/Ops ++ optimizes the daily utilization of flights, increases user productivity and improves airline management when there are deviations from your regular schedule. In short, NetLine/Ops ++ is the most comprehensive operations control system on the market. The application monitors current flight operations and optimizes daily aircraft utilization. By implementing Lufthansa System's solution, the airline can react swiftly to flight irregularities and increase on-time performance through a more comprehensive overview of flight movement. This will enable the airline to improve daily flight operations, provide reliable services, and contribute to enhancing the traveler experience. It will also reduce operating costs for Austrian Airlines and help to capitalize on staff productivity.

Manuel Javorik, Head of Operations Control Austrian Airlines said, "Austrian Airlines has been a NetLine/Ops Classic customer since 1997 with Lufthansa Systems being a reliable partner for many years. The joint project management team of Austrian, Lufthansa Group and Lufthansa Systems experts did an excellent job throughout the transition phase and final cutover. Of course, challenges were faced, but these are expected to occur and were professionally managed by the expert teams. As Austrian OCC we already see major benefits of the modern platform in our daily work."

NetLine/Ops ++ also collects, evaluates and displays many other kinds of data (including passenger bookings, critical weather conditions, technical aircraft limitations, crew rotations and airport restrictions)

Automatic tail assignments and fast support when decisions need to be made – The NetLine/Ops ++ xOPT suite

After using the scheduling tool for subfleet assignment, NetLine/Ops ++ Tail xOPT perfectly manage tail assignment on the day of ops. The optimizer takes booking figures, crew connections and technical aircraft limitations into account and assigns the best rotations to each aircraft based on the data. Operational disruptions soon lead to very high costs. This makes it all the more important to resolve them quickly and effectively. The modern optimizer technologies help to find fast, cost-efficient and legally compliant solutions. NetLine/Ops ++ Solver xOPT swaps rotations so that your regular flight schedule can be restored promptly.

Maintenance planning and control

Alerts are automatically generated if there are any conflicts with the live

schedule. The Maintenance Control module in NetLine/Ops ++ significantly reduces maintenance-related delays and provides interfaces for exchanging data with the maintenance and engineering systems.

In order to carry out aircraft maintenance efficiently and economically, it is essential for maintenance & engineering to have access to the aircraft's current performance data at all times. Thus, maintenance events be planned and executed optimally. For the efficient and economic controlling of a flight, operations control requires not only an overview of coming maintenance events, but also control of the effects that changes in operations have on maintenance events.

NetLine/Ops ++ MaintenanceControl creates a link between NetLine/Ops ++ and different maintenance & engineering systems. This ensures that both the person responsible for operations and the maintenance technician receive all the information and decision-making support they need to carry out their daily work to the optimum.

Thomas Hoelsken, Program Manager Lufthansa Systems said, "Coming from previous migrations in the program, every group airline has its specific challenges to be addressed. We have worked closely with Austrian Airlines over the past ten months, evaluated possible optimizations to business processes and even developed some feature requests allowing Austrian to cope with new regulatory requirements. Participating in our Lufthansa Group NetLine/Ops ++ cloud platform, Austrian Airlines is prepared to manage the hurdles that occur as a result of resuming flight traffic after the pandemic."

Oliver Thoenissen, Director Ground Operation Products Lufthansa Systems said, "Cloud architectures come along with many benefits. The Lufthansa Group airlines can, for example, adapt the size of the production environment, allowing to cope with previously unimagined situations such as the Covid-19 pandemic and a drastically ramped down flight schedule. The platform was scaled down to a minimum as public life went into lockdown and platform resources were no longer required. Our Financial Optimization Team regularly checks the usage of the cloud resources and makes recommendations for optimization to keep operational costs at a minimum."

NetLine/Ops ++ offers multiple decision support functions to quickly see information and events relevant to operations and maintenance control and respond sensibly.

Various options can be tested and evaluated on a "playground" before publishing the solution as a live schedule. Going ahead, a REST API will connect NetLine/Ops ++ to every other application based on the SWIM (system-wide information management) standard. Advanced new technologies such as AI and optimizers can then be integrated seamlessly.

Airbus selects Honeywell Flight Management System to manage air traffic for A320, A330 and A350

The new FMS hardware is 15 times more capable than current hardware and enables a path to future enhancements without hardware changes.

Honeywell's Flight Management System (FMS) has been selected by Airbus to meet the air traffic management needs of the future A320, A330, and A350 aircraft. With the new FMS, airline customers will achieve best-in-class operational efficiency, reliability, and safety. Additionally, the new FMS also incorporates connectivity with the outside world, including Electronic Flight Bags (EFB), to ease the pilot workload and enhance fuel savings with the use of real-time data.

Jim Currier, president, Electronic Solutions, Honeywell Aerospace said, "This win for Honeywell is a testament to Airbus' confidence in our avionics systems. The new FMS combines multiple current FMS offerings for Airbus into one single solution for their A320, A330, and A350 platforms. Importantly, the new FMS hardware is 15 times more capable than current hardware and enables a path to future enhancements without hardware changes. Honeywell has been supplying flight management systems since Airbus' first A300 went into service, and this win will extend our 35-year partnership well into the future."

Honeywell's FMS family has already been deployed by Airbus on the A320, A330, A350 and A380 platforms. The new FMS is being developed to build upon millions of hours of Honeywell's FMS legacy, with enhanced modularity, advanced functionality, and a multi-core processing platform. At the completion of development, the new FMS will be a standalone federated system, making it easier for operators to support the fleet.

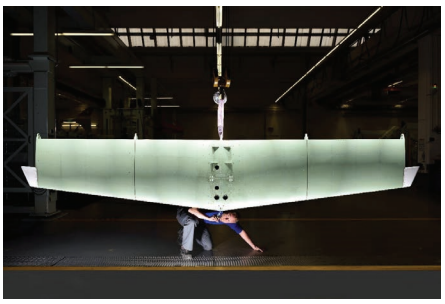
The FMS will be offered as a single standardized hardware and software platform that can be used across the Airbus A320, A330, and A350 aircraft fleet with expected entry into service by end of 2026. A retrofit solution based on the same core hardware and common software is also planned for the A320 and A330 fleet of aircraft. An FMS provides the primary navigation, flight planning, and optimized route determination and enroute guidance for an aircraft.

RUAG Aerostructures continues to be single reliable partner to source PC-12 horizontal stabilizers to Pilatus

RUAG Aerostructures and Pilatus have been working together for over 30 years.

RUAG Aerostructures recently delivered the 2,000th PC-12 horizontal stabilizer to Pilatus. RUAG Aerostructures and Pilatus have been working together for over 30 years. Numerous components for the PC-7, PC-12, and PC-21 aircraft types are produced and assembled for the Swiss aircraft manufacturer at the RUAG Aerostructures plant in Emmen.

Paul Horstink, Executive Vice President RUAG Aerostructures said, "I congratulate Pilatus on the great success with the PC-12 and at the same time I am proud that we with RUAG Aerostructures have been able to contribute to this success story for 34 years. We are very pleased to continue our proven cooperation with our partner Pilatus and to set new milestones together."



In 1988, RUAG Aerostructures took over the development and production of the PC-12 tailplane and has been supplying Pilatus as a single source supplier ever since. The horizontal stabilizer is the horizontal surface of the tailplane, at the rear of an aircraft.

Roman Emmenegger, Vice President of Manufacturing at Pilatus Aircraft Works said, "We value RUAG Aerostructures as a reliable, local partner and supplier. The collaboration has been tried and tested for many years and we look forward to further cooperation."

Following last year's extension of the framework contract until 2025, RUAG Aerostructures was again able to secure follow-up orders for the PC-21. The Emmen plant will produce the entire fuselage and wing structure for seven additional aircraft. The single-engine turboprop training aircraft is used by the world's top air forces to train military pilots. The start of production of the seven aircraft has already begun.

Smart Lander issues recommendations to operators on the maintenance actions to be taken according to the hardness of the landing and to the load level sustained by the landing gear.

Innovation of the week – 'Land Smartly with ATR and Safran's latest – SMART LANDER '

The landing gear must be strong enough to carry the weight of the aircraft while being completely retractable to ensure a smooth flight.

As the pandemic has passed, the demand for air travel has risen by leaps and bounds. The start of the holiday season and the lifting of restrictions has led travelers and tourists to a traveling frenzy. Airlines are suddenly experiencing a rise in demand for the need for more latest, next-Gen, fuel-efficient, and sustainable aircraft to meet the rising passenger demands. A direct consequence of this rise in aircraft production is a surge in demand for robust airline parts and components. One of these components is the aerospace landing gear system.

The origins of the aerospace landing gear market can be traced back to the early 20th century. In the early years, landing gears consisted of skids with wheels added to them. These systems did not have much in the way of security, however, as they would soon become the cause behind many wrecks, due to their breaking on impact from hard landings.

Importance of landing gear systems in aerospace applications

One of the most prominent technological feats in the aerospace industry is the landing of a commercial aircraft. For safe landing, the aircraft must descend from heights of over 35,000 feet to the ground and slow its speed from some 650 miles to 0 miles per hour, whilst placing the entire weight onto a system of wheels and struts.

Thus, the landing gear must be strong enough to carry the weight of the aircraft, while being completely retractable to ensure a smooth flight.

Aircraft landing gear systems are an integral part of an aircraft. Indeed, landing gears have been hailed by many as mechanical marvels. According to reports by Airbus, these systems account for over 7% of the total weight of the aircraft and represent nearly 20% of the overall maintenance costs, which positions them as significant components of an efficient airline.

Landing gears are components that are designed to hold high loads during aircraft landing without incidents of damage to the aircraft or disturbance to passengers. These systems are also designed to carry the entire weight of the airplane while grounded.

The Innovation of 'SMART Lander'

Recently, ATR and Safran Landing Systems have developed a Smart Lander, an innovative landing gear diagnostics service that uses state-of-the-art knowledge in data analysis to optimize the manufacturer's response times in the event of hard landings and enable

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aircraft to be quickly returned to service.

This innovative service, the first of its kind in the aviation industry, relies on machine learning technology. Based on hundreds of thousands of hard landing simulations, Smart Lander issues recommendations to operators on the maintenance actions to be taken according to the hardness of the landing and to the load level sustained by the landing gear. Aircraft can subsequently be permitted to continue their commercial operations or alternatively, be sent to a maintenance base. This process takes less than an hour, compared to over a week previously.

David Brigante, ATR Senior Vice-President of Customer Support and Services, said, "Our former process could take up to 10 to 20 working days. It required analyses from both the ATR Design Office and Safran Landing Systems to decide whether the aircraft was fit to return to service. With Smart Lander, we will be able to massively reduce our response times, therefore boosting aircraft availability, reducing costs for customers, and enhancing customer satisfaction, while maintaining the same level of analysis quality."

Patrick Joyez, Technical Director at Safran Landing Systems, said, "We have been working hand in hand with ATR, capitalizing on our joint know-how regarding landing gear and the operations performed by ATR to develop this health-monitoring service, analyzing the condition of the landing gear based on Safran's expertise in harnessing data. Smart Lander is a true breakthrough in terms of landing load analysis, which will offer real value to ATR operators."

By considerably reducing the response times required for returning the aircraft to service after a hard landing, Smart Lander will offer undeniable advantages to both ATR and its customers in terms of man-hours, aircraft availability, and customer satisfaction.

Types of landing gears and their components

Aerospace landing gear systems, also known as the undercarriage, are a complex combination of various structural components. These include energy absorption equipment, brakes, tires, and wheels. They also include components like retracting mechanisms and steering devices, among others.

Different aircraft feature diverse aircraft landing gear types, depending on their requirements, like floats, wheels, skis, skids, or pontoons. Of these, the skid type of landing gear is used often in balloon gondolas, helicopters, and tail dragger aircraft. Skis-type landing gears demonstrate great potential in aircraft that frequently land or take off in snowy areas or frozen water bodies. In aircraft that operate on water surfaces, the pontoon-type landing gears are used.

Successful first flight of ATR 42-600 'Short Take-Off and Landing' aircraft

The new 30-to-50-seater aircraft capable of taking off and landing on shorter runways will now enter a phase of ground and flight tests.

ATR successfully conducted the first flight ofpartially configured STOL variant (for 'Short Take-Off and Landing') of its ATR 42-600 aircraft. The flight took off at 10:00 from Francazal airport and lasted 2 hours and 15 minutes. The crew onboard performed a number of tests to measure the upgraded aircraft systems' performance.

Following the successful completion of this first flight, new functionalities will be tested one at a time, starting with the MFC-NG (Multifunctional Computer New Generation), followed by the Autobrake, Ground Spoiler, and increased take-off rating systems.

The aircraft will enter its final configuration at the end of the year with the addition of a new larger rudder and move on to the certification phase in 2023.

To date, ATR has recorded 20 commitments from airlines and lessors for this ATR 42-600S.

There are currently close to 500 airports around the world with a runway length between 800 and 1,000 meters (2,625 to 3,281 feet) that could welcome the ATR 42-600S. This new STOL variant will help passengers benefit from increased regional connectivity.

SIFCO ASC's latest Advanced Solution Control System

The new portable all-in-one plating system with dripless technology.

SIFCO ASC recentlylaunched a new portable all-in-one plating system featuring dripless technology called the Advanced Solution Control System (ASCS). Owing to the new system, all the chemical solutions flow and vacuum will go through the SMART tools before being recycled back into the cart's solution management system – right at the surface of the workpiece. The result is a cleaner, more environmentally friendly, and inherently safer working environment.

This innovative piece of electroplating technology is also entirely portable, enabling it to be brought directly to the specific part or component. In addition to aiding throughput and productivity, the reduced ergonomic risk will offer significant safety benefits to operators.

SIFCO ASC's General Manager, Nicolas Baudin, said, "By using the ASCS, technicians will quickly see a boost in safety and reduction in their process footprint – a key consideration for everyone in the industry. The system's dripless tooling will also significantly cut exposure to fumes and chemicals as well as reduce waste thanks to the use of less masking, cover materials, and cleaning supplies."

In addition to the clear environmental and safety benefits, the ASCS has been designed to further enhance automation. After all, selective plating is no longer strictly a manual process. By increasing automation, cycle times can be optimized, data is logged in real-time, repeatability from one technician to the next is increased, and human errors are minimized.

Two sizes of the ASCS, the Nano and Prime, are currently available. Each has been designed to further build on the existing benefits of selective plating, such as in-situ repairs and reduced masking and downtime

In addition to the Nano and the Prime, SIFCO ASC has also developed a collection of SMART tools to cover a variety of geometries and contact areas, ranging from 0.07 dm (1 in2) to an incredible 1 dm (15.5 in2). With the SMART tools, the deposit can be plated in any orientation – horizontally, vertically, and upside down with no difference in performance or result.

These new systems mark the latest example of SIFCO ASC's commitment to continually improve the selective plating process. As the world leader in selective plating technology, SIFCO ASC has been providing practical, cost-effective brush plating solutions for both OEM components and parts requiring refurbishment in the aerospace, oil and gas, general industry, and power generation sectors for over 50 years.

Airbus hoists an exclusive real-size ACJ TwoTwenty cabin with virtual reality technology

Due to the latest technology, Airbus is able to offer the customers a real-time and immersive design experience.

Airbus Corporate Jets (ACJ) has opened its exclusive new ACJ TwoTwenty creative studio in Toulouse, France. The studio is dedicated to ACJ customers and showcases a real-size section of the ACJ TwoTwenty cabin, offering double the space and volume of any competitor aircraft, so they can customize it to make it their own. With an integrated use of virtual reality technology complemented by configurable customer-specific mock-ups, all these assets available under one roof make the creative studio a unique and attractive one-stop shop for interior design.

Customers can imagine and design their own luxury interior with the ACJ designers and technical specialists who will help guide and advise them along with the visit.

Benoit Defforge, ACJ President said, "We are extremely proud to open this unique creative studio for our customers. Our ACJ TwoTwenty is featuring unmatched personal space with 786 ft2 of floor space. It is important to make them feel the space and ultimate comfort it is bringing. Thanks to the latest technologies we offer our customers a real-time and immersive design experience."

ACJ TwoTwenty customers will be invited to explore their layout ideas and see them develop, adjust and review before immersing themselves in their perfect cabin. The unique experience

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of the ACJ TwoTwenty is reflected with hundreds of soft natural fabrics, plush carpets, smooth wood veneers, and plated metal finishings. They will have the chance to study the array of colors under different lighting before deciding on their color schemes for seating, carpets, and walls or the wood effects and finishes for the handcrafted cabinets. They may also choose one of the three available cabin ambiances and one special Cyril Kongo edition configuration which is part of the signature cabin catalog.

More than 210 Airbus corporate jets are in service worldwide, flying on every continent, including Antarctica, and more than 1,800 private and business aviation Airbus helicopters are in service worldwide.

H55 to provide Pratt & Whitney with battery pack for regional hybrid-electric flight demo program

H55 S.A. is a Swiss-based company developing electric propulsion and battery systems.

This technology is expected to give 30 percent fuel efficiency and considerable CO_2 emission reductions as compared to the most advanced turboprop engines for regional aircraft.

Pratt & Whitney Canada has selected H55 to provide a battery pack for the regional hybrid-electric flight demonstrator program. Ground Testing of this propulsion technology is expected to start this year with a planned test flight in 2024. This technology is expected to give 30 percent fuel efficiency and considerable CO_2 emission reductions as compared to the most advanced turboprop engines for regional aircraft.

Collins Aerospace and De Havilland Aircraft of Canada are key technology collaborators in the demonstrator project. Pratt & Whitney Canada will be investing USD 163 CAD million with the support of the governments of Quebec and Canada, towards developing this sustainable propulsion technology. The National Research Council Canada (NRC) and the Innovative Vehicle Institute (IVI) are also supporting the development of some of the component designs and electrical control systems for the project.

H55 S.A. is a Swiss-based company developing electric propulsion and battery systems.

André Borschberg, H55's Co-founder and Executive Chairman said, "Our goal has always been to target regional commuter transportation and with P&WC, there is a perfect fit whereby our core technologies complement each other. Both companies share the same vision as to how hybrid-electric propulsion can offer a range of environmental and economic benefits. Having been selected by P&WC is an important validation that our experience is valued by a reputable industry player. We are excited to be working in Quebec with P&WC and several other industries and research collaborators in bringing our battery pack to the hybrid-electric demonstrator program."

Jean Thomassin, executive director of new products and services, Pratt & Whitney Canada said, "We're delighted to draw from H55's proven technology in the field of aircraft battery systems and collaborate with NRC and IVI on optimizing the design for our flight demonstrator program. Hybrid-electric technology holds significant potential to boost the efficiency of next-generation aircraft propulsion systems, allowing us to set new standards for sustainability for regional and commuter aircraft."

Hybrid-electric propulsion technology is a core element of Pratt & Whitney's strategy for continually advancing the efficiency of aircraft propulsion systems, in support of the industry-wide goal of achieving net-zero CO_2 emissions for aviation by 2050. They are also developing technologies to support greater use of cleaner, alternative fuels, including Sustainable Aviation Fuels (SAFs) and hydrogen, each of which will benefit from the increased efficiencies enabled by hybrid-electric propulsion systems.

The mission of H55 is to make aviation clean, safe, and affordable. Their strengths and competencies lie in developing propulsion and energy storage solutions that are modular, lightweight, and certifiable. Having integrated and flown 4 electric airplanes, this partnership is a further illustration of H55's position as a major enabler in the electric commuter market.

Fokker Services focus on technological investments for enhanced efficiency and innovation

Fokker Services recently installed a fully automated Twin Wire Electric Arc Spray in their LaGrange facility. **Craig Winter, Managing Director at Fokker Services** Americas speaks about the multiple advantages of this technology, the addition of more machines and grinding equipment complementing the Twin Arc, their expansion plans, the problem of a skilled workforce, and a lot more in an exclusive interview with **Swati. k .**

Q - Congratulations on the successful installation of fully automated Twin Wire Electric Arc Spray technology. Can you tell our readers about this latest technology?

Ans - Twin Wire Electric Arc Spray is one of several thermal spray technologies used to restore worn components. This fully automated technology, installed at our facility in LaGrange, USA, allows us to take control of the total restoration process in-house for hundreds of part numbers. Using a robotic arm, we can efficiently spray thick dense coatings of aluminum, steel, nickel, and various specialty alloys to restore various parts. In many applications, it is a suitable alternative to hexavalent chromium plating. Some of the main benefits of using this technology are that as we are streamlining our processes, we can pass on the time- and cost-saving benefits to our customers. As part of our ongoing environmental initiatives, the Twin Wire Electric Arc Spray eliminates the need for toxic chemicals used in chrome plating and uses a fraction of the energy to restore surfaces.

Q - Along with this technology, you have also made recent investments in additional machining and grinding equipment. Can you tell us about those investments and how does the additional machining complement the latest Twin Wire Electric Arc Spray technology?

Ans - Our strategy in making machine shop investments was twofold. First, our desire to vertically integrate the supply chain allows Fokker Services to maintain tight quality control, dramatically reduce turnaround times, and lower costs. Additionally, as an Engineer, I saw the value when our skilled Machinists and Engineers worked together. The strong working relationship that our team develops by collaborating every day has led to additional repair development opportunities and innovation.

Q - After the Arc Spray technology, what is the next component maintenance technology you plan to bring over to your facility?

Ans - We are always looking for ways to better serve our customers. Since we are always adding new component capabilities, we continue to look at repair and restoration processes, determine what

the component needs, and explore how we can most efficiently restore those components to an overhauled level. In the coming months, we will focus on further strengthening our data, analytics, and visualization efforts. Supported by a skilled team of data scientists, data engineers, and Power BI specialists, we will boost our digitalization process to enhance customer experience, performance, and more.

Q - Restoring surfaces on a variety of hydraulic, pneumatic, flight control, and high-speed rotating components is a challenging idea, as these parts are mostly replaced with new parts or the repairs are outsourced. How does this technology benefit the customers?

Ans - The aircraft component maintenance business is driven by two market demands: efficiency and innovation. Our investments in technology fuel both. Our customers benefit from a quicker and more accountable turnaround time. This efficiency translates to better availability for our customers and more consistent deliveries. Our innovative repair development on cost-driving components can greatly reduce the cost of ownership through fewer new replacement parts, as well as fewer components becoming Beyond Economical Repair (BER).

Q - As Fokker Services' focus is to modernize the facilities with the latest technologies, how do you tackle the challenge of training the team at these facilities?

Ans - Our people are the foundation of our organization. In a time when we see labor shortages in the news, we must ensure that our skilled technicians have the right expertise. We developed a comprehensive training program for our technicians which not only ensures they have the right skills to tackle different levels of repairs but also serves as a career development path for advancement and recognition. Technology is also woven into our training, building process consistency and reducing the opportunity for error.

Q - The aerospace industry is and will continue to face a severe shortage of skilled labor. Your views.

Ans - We recognized the potential for labor shortages in 2018-2019 and while COVID delayed growth in the industry, we now see skilled labor shortages emerging as a constraint. To address this, we are taking a more proactive approach. We are seeking new channels for potential employees to find us and creating development opportunities to retain our skilled colleagues. At Fokker Services Americas, we are collaborating with local universities and staffing partners, we developed pathways for transitioning military personnel, and we are working with state and local chamber of commerce to develop apprenticeship programs.

Q - Any expansion plans going ahead?

Ans - During MRO Americas, we were excited to announce the launch of our new Boeing 737NG nose-to-tail program. We are completing over 50% of the component MRO capabilities in-house for this program so we can maintain control over turnaround times, costs, and reliability. The program covers critical parts including IDGs, engine accessories, hydraulic actuators, cockpit controls, and instruments, so in the short term, our teams are focusing on further establishing this program with our suppliers for operators worldwide.

Q - Post-pandemic how is the current MRO demand from operators? With the holiday season and the lifting of restrictions, air travel is already picking pace across the world. How soon do you feel this will aid the MRO sector in the recovery from pandemic losses?

Ans - We see demand from operators increasing. However, different regions are recovering at different rates. Although we expect that full recovery to pre-pandemic levels will not happen for another year, which could be longer if unexpected developments occur, we have already begun our preparations for demand to return. Last year we invested not only in maintenance technology but also in our inventory to minimize supply chain issues where possible, particularly for components on the Boeing 737NG platform. Therefore, we are well-positioned to support operators, especially when it comes to CFM56 and LEAP engine accessories. Operators could experience delays in getting their units back from other shops if there are supply chain challenges, and if this is the case, our team is ready to step in and support with fast turnaround times.

Wencor and Turkish Technic expand their three-decade-old partnership

Wencor will provide consumable and expendable (C&E) parts to support Turkish Technic's maintenance operations.

Expanding their long-standing relationship of over three decades, Wencor and Turkish Technic signed a multi-year parts agreement in which Wencor will provide consumable and expendable (C&E) parts to support Turkish Technic's maintenance operations.

On the signing of the new contract the CTO of Turkish Technic, Yasin Birinci said, "As a leading MRO with decades of experience in the market, we value strategic partnerships that allow us to best serve our customers. Therefore, we are happy to extend our long-standing partnership further with Wencor. The C&E parts agreement will allow both parties to dynamically meet the fast-changing demand of today's global aviation. We will continue to operate as a one-stop solution center for the aircraft and component maintenance needs of our customers."

This agreement will continue to enhance the partnership, permitting the parties to work together to accurately forecast, efficiently supply, and quickly respond to the expanding supply chain requirements.

Wencor CEO, Shawn Trogdon said, "We are excited to expand the relationship that we have had for many years with Turkish Technic and their growing maintenance organization. In support of their growth, we are proud to partner and provide on-time innovative solutions that will enable reliability, availability, and cost efficiencies. Wencor is looking forward to the opportunity to support Turkish Technic and their customers for years to come."

This agreement will continue to enhance the partnership, permitting the parties to work together to accurately forecast, efficiently supply, and quickly respond to the expanding supply chain requirements in today's aerospace market, allowing for best-in-class customer service. Wencor will support the agreement through its worldwide stocking facilities with local oversight from its Istanbul office.

Volotea signs Iberia for exhaustive C-Checks on its Airbus A320 fleet

Iberia will conduct the MRO services in its Madrid and Barcelona hangars.

Volotea has signed an MRO contract with Iberia to conduct C-Check revision on its Airbus A320 fleetin Iberia's Madrid and Barcelona hangars for the next five and a half years, starting from January 2023. Volotea will send its A320 aircraft to Iberia Maintenance to submit them to the exhaustive checks that are carried out during the winter seasons.

Iberia's Madrid and Barcelona facilities have six hangars with 16 positions and the necessary workshops to carry out maintenance services, and all the management and logistics of the materials necessary to overhaul the A320 aircraft and the engines with those that are equipped.

Carlos Muñoz, Founder and CEO of Volotea said, "This long-term agreement assures us of first-class maintenance services for our A320 fleet, also carried out with a leading and reputable Spanish company such as Iberia Maintenance, which allows us to support and promote this industry in our country. Having inspection services of the highest quality is key for Volotea, an airline whose main priority is safety and high operational integrity."

Javier Sánchez-Prieto, Chairman and CEO of Iberia, said, "This agreement with Volotea helps to further consolidate Iberia Maintenance as a reference provider in southern Europe for all MRO services and will also boost our development project of the maintenance business in Barcelona".

Last year, Volotea completed the transition to a full Airbus fleet by betting on the A320 model, with which its operations are now cleaner and more environmentally friendly.

Delta TechOps to provide offload support to Pratt & Whitney mature commercial engines

It is imperative that our engines stay in peak operational condition to keep fleets flying reliably.

Pratt & Whitney has signed an agreement with Delta TechOps (DTO) for maintenance services under which DTO will provide additional offload support for Pratt & Whitney mature commercial engines, including the PW2000 and the PW4000-94 engines.

Joe Sylvestro, senior vice president of Aftermarket & Sustainment Operations at Pratt & Whitney said, "With passenger air travel recovering and the importance of cargo to the global economy, it is imperative that our engines stay in peak operational condition to keep fleets flying reliably and safely and to ensure everyone and everything gets to where it needs to go. We are excited to be expanding our working relationship with Delta TechOps."

Delta TechOps, a world-class MRO provider for both mature commercial engine and GTF engine fleets, has a long-standing collaborative relationship with Pratt & Whitney. With MRO headquarters in Atlanta and several locations in the United States, DTO is well-positioned to support customers' needs.

AIESL to carry MRO work for Boeing of two custom made VVIP B777 in India

The two custom-made B777 aircraft will be used for the travel of the president, the vice-president and the prime minister.

Boeing and soon to be privatised Air India Engineering Services Limited (AIESL) announced a collaboration for the maintenance, repair and overhaul (MRO) of two custom-made B777 aircraft that are used for the travel of the president, the vice-president and the prime minister. This would also support the Indian Navy's growing P-8I fleet and will help build indigenous MRO capabilities as it would bring the P-8I landing gear repair and overhaul work to India for the first time.

Surendra Ahuja, Managing Director, Boeing Defence India said, "Our planned collaboration with AIESL could position us to provide significant value-add to our defence customers locally by enabling faster turnaround, exceptional operational capability and mission readiness for the Indian armed forces. This is also an important step as part of our commitment to the Government of India's Aatmanirbhar Bharat vision of making India a regional MRO hub."

The two custom-made VVIP aircraft were delivered by Boeing to the Indian government in October 2020. The IAF pilots operate the plane to fly the dignitaries.

Sharad Agrawal, CEO, Air India Engineering Services Limited (AIESL) said, "Such collaboration would drive forward our vision for strengthening MRO capabilities in India, for India. We remain excited and committed as we provide critical support to India's armed forces as part of the Boeing India Repair Development and Sustainment (BIRDS) hub initiative."

The BIRDS hub has growing capabilities in India in the area of heavy maintenance, component repair, training and skilling of MRO maintainers. Boeing through BIRDS will offer "training programmes to increase skilled manpower by developing sub-tier suppliers and medium, small and micro enterprises (MSMEs) to build high-quality MRO capabilities in India".

Through its MRO facilities in Delhi, Mumbai, Kolkata, Hyderabad and Thiruvananthapuram, the AIESL offers servicing and maintenance of civilian aircraft operated by domestic and international airlines.

Over 12,000 Wingcopter 198, the world's most advanced delivery drone to be deployed in Africa

This will help build an entirely new transport framework – much faster, cheaper, more sustainable, and more efficient.

German drone delivery pioneer Wingcopter and Continental Drones Ltd have signed a partnership agreement to help establish drone-based delivery networks with thousands of Wingcopter drones across the African continent. These networks will dramatically improve the reliability and efficiency of existing supply chains but also help create completely new ones. Besides, Continental Drones has become a Wingcopter Authorized Partner (WAPP) for all 49 sub-Saharan countries. Over the next five years, the goal of the two partners is to deploy 12,000 Wingcopter 198, the world's most advanced delivery drone, throughout Africa, making it the largest commercial deployment in the global delivery drone industry to date.

In many African regions, insufficient infrastructure is one of the biggest barriers to universal health coverage and economic development. Setting up large-scale drone delivery networks across African airspace will propel logistics in these countries to a new level and help build an entirely new transport framework – much faster, cheaper, more sustainable, and more efficient than the development of conventional ground-based infrastructure with all its unhealthy and climate-damaging emissions.

Alexander Asiedu, Founder of Continental Drones and Chairman of Atlantic Trust Holding said, "Together with Wingcopter, we are committed to accelerating the development and economic integration of Africa by enabling the creation of drone-based delivery networks across the continent. With our longstanding business experience on the ground and Wingcopter's best-in-class drone technology, these networks offer a real chance to fuel economic development and help improve the livelihood of millions. African nations show true leadership by implementing this cutting-edge technology for the betterment of their people and generations to come."

Tom Plümmer, Co-Founder and CEO of Wingcopter said, "This agreement and trustful partnership is a real game-changer, positioning Wingcopter and Continental Drones at the top of the drone delivery industry. Wingcopter is well-positioned to execute against the tremendous opportunity of drone delivery in the next decade. We are convinced that our cooperation with Alex and his Continental Drones team will unlock the African drone delivery market on a large scale, allowing us to jointly improve and save millions of lives."

Bridging the infrastructure gap through the deployment of large fleets of Wingcopter drones, even in the most remote places, will allow governments and the private sector to leapfrog inefficient infrastructure to climate-neutral, reliable, and fast logistic capabilities. Wingcopter's technology will be deployed to improve the livelihoods of millions of African people, for example through the on-demand delivery of medicines, vaccines, or laboratory samples but also essential goods for daily use. In addition, it has the potential to turbocharge the economic development of the countries in which the Wingcopter networks will be established by connecting communities more effectively and by creating thousands of new job opportunities to operate these delivery networks. As the Wingcopter 198 is fully electric, it contributes to a more sustainable African logistics sector and helps move economies towards net-zero emissions.

India's move towards becoming the largest exporter of defence aerospace components

SKM Technologies inaugurated its state-of-the-art 70,000 sft advanced facility at Aerospace Park in Hyderabad.

India is trying to shift its focus from being one of the largest importers of defence products to one of the top exporters of defence components. Taking a firm step toward this, the Government of India has released a positive indigenization list and has imposed bans on the import of several defence items to support indigenous developments.

Dr G Satheesh Reddy, Chairman of DRDO said, "Defence export has huge potential for our country and in the coming years, will set new benchmarks and boost the resolve of Make in India and Make for the World. We have been receiving interest for export of our Defence products and besides BrahMos missile, we are looking to export Akash, Anti-Tank-Guided Missile (ATGM), Surface to Air Missiles (SAM), Torpedoes and Radars."

SKM Technologies Pvt Ltd, an industry partner of Defence Research and Development Organisation (DRDO) which is involved in the manufacturing of aerospace and defence components inaugurated its state-of-the-art 70,000 sft advanced facility at Aerospace Park in Hyderabad recently.

The facility was inaugurated by Secretary, Department of Defence R&D and Chairman, DRDO Dr G Satheesh Reddy, in the presence of distinguished guests from DRDO and industry.

Addressing the inaugural function, Dr G Satheesh Reddy, Chairman DRDO said, "that there is a huge opportunity for private industries in the defence sector. He emphasized that private industry can access government test systems and facilities as well as for strengthening Indian defence industries. DRDO has facilitated access to more than 1000 patents with nil royalty."

This move will give a boost to indigenization efforts with the active participation of companies like SKM Technologies Pvt. Ltd and other public and private sectors for fulfilling twin objectives of achieving self-reliance & promoting defence exports.

Chairman of SKM Technologies Pvt Ltd, GR Surya Rao said, "Since SKM Technologies which we had acquired existed in Aerospace Park already, it made our efforts faster and easier in foraying and establishing a firm foothold. Our desire is to be part of the Make in India program. We have partnered with BDL for indigenous missiles like Akash, Quick Reaction Surface-to-Air Missile (QRSAM) and many others which are under research and development (R&D)."

SKM Technologies Pvt. Ltd is a leading world-class manufacturer of high precision components and assemblies for some of the reputed companies in India and abroad such as Rafael, Pratt & Whitney, Dedienne Aerospace, Dassault Aviation, Magellan Aerospace Corporation, Nuclear Fuel Complex, Hindustan Aeronautics Ltd (HAL), DRDO, Bharat Dynamics Limited (BDL) among others.

The newly inaugurated SKM Technologies facility has a 70,000 sqft built-up area with 1000 class clean rooms. This will not only accommodate manufacturing but also carry out critical Assembly operations, and provide services such as specialised welding and special treatment processes.

Elbit Systems to provide DIRCM technology to additional European Air Force

Elbit Systems has been cooperating with Airbus on equipping aircraft with DIRCM of additional countries.

Airbus Defence and Space has selected Elbit Systems to provide J-MUSIC DIRCM (Direct Infrared Countermeasures) including the Infra-Red-based Passive Airborne Warning Systems (PAWS IR), for Airbus A330-200 MRTT aircraft of additional European Air Force.

Oren Sabag, General Manager of Elbit Systems ISTAR & EW, said: "We are looking forward to cooperating with Airbus in additional markets as Air Forces have been placing a growing importance on stepping up platform protection".

Elbit System's DIRCM systems integrate the latest laser technology, high frame-rate thermal cameras, and a compact, dynamic high-speed sealed-mirror turret, delivering high-performance defense against ground-to-air IR missiles. Elbit Systems has been cooperating with Airbus on equipping aircraft of additional countries with DIRCM and Electronic Warfare (EW) systems, including NATO's Multinational Multirole Fleet, German Air Force's aircraft, and aircraft of the UAE Air Force, and others.

Boeing continues to support U.S. Air Force Thunderbolt fleet with upgraded A-10 Wing Deliveries

The upgraded wings are more durable, efficient, and easier to maintain, extending A-10 flying life to 10,000 hours.

Boeing in partnership with Korean Aerospace Industries and other key suppliers has delivered the first new wing set for the A-10 Thunderbolt II fleet to the U.S. Air Force. The wing set arrived earlier this month at Hill Air Force Base in Ogden, Utah, where the Air Force has started aircraft integration.

Lt. Col. Jaclyn Melton, materiel leader for A-10 Programs in the A-10 System Program Office at Hill Air Force Base said, "Boeing is working diligently to deliver greatly needed new wings for the A-10 fleet."

Boeing was awarded the contract in August 2019 and is currently working to provide the Air Force with 50 wing sets. Each wing set consists of outer wing assemblies, center wing assembly, control surfaces and the fuselage integration kit. The upgraded wings are more durable, efficient, and easier to maintain, extending A-10 flying life to 10,000 hours.

Dan Gillian, vice president of U.S. Government Services for Boeing Global Services said, "The A-10 serves a critical role for the Air Force and Boeing is proud to extend our legacy of supporting the Thunderbolt and its mission. In partnership with the Air Force and our established supply base, we have started full-rate production and are actively supporting the customer's installation schedule."

The A-10 wing program was previously a dry line, with tools and equipment housed in long-term storage. Boeing Global Services revived the tooling and activated the supply base within 12 months of the contract award. Boeing's earlier experience with the A-10 includes delivering 173 enhanced A-10 wing assemblies under a separate contract.

Marshall Aerospace hits new milestone, delivers 1000th auxiliary fuel tank to Boeing's P-8 program

The celebration took place at Marshall's manufacturing facility in Cambridge alongside attendees from Boeing and the Royal Air Force.

Marshall has successfully manufactured and delivered its 1000th auxiliary fuel tank in support of Boeing's Global P-8 program. They celebrated this major milestone at their manufacturing facility in Cambridge alongside attendees from Boeing and the Royal Air Force.

Anna Keeling, vice president and managing director of Boeing Defence UK said, "I am delighted to be able to congratulate Marshall on reaching this significant milestone for the global P-8 maritime patrol fleet. Marshall is one of the historic names in the UK aerospace industry and a long-term partner of Boeing, developing and delivering the latest in aviation technology right here in Cambridge, serving multiple nations around the world."

The P-8 maritime patrol aircraft is a military derivative of Boeing's Next Generation 737-800. The auxiliary fuel tanks extend the flight range of the aircraft and allow for additional time on station. The tanks are supplied in ship sets of six, along with a number of components.

Neil McManus, Managing Director, Marshall Aerospace said, "The whole team is thrilled to deliver 1000 auxiliary fuel tanks to Boeing. Since starting our design and manufacture in 2006, we have established an efficient assembly capability and high-quality international supply chain with a 100% on-time delivery record. This milestone demonstrates our ability to provide a market-leading lightweight fuel system solution and integrate it with consistently high quality."

Marshall developed a complete auxiliary fuel tank system to meet the P-8 aircraft's demanding needs by using proprietary and pre-approved honeycomb technology that has been developed to meet the latest civil and military airworthiness regulations.

Boeing has delivered more than 140 P-8 aircraft to global customers, including the United States, Australia, India, United Kingdom, and Norway.

Erika Pearson appointed as President Boeing Business Jets

Pearson will lead the team responsible for the sales, support, and operations of Boeing commercial products.

Erika Pearson is appointed by Boeing as the new President of Boeing Business Jets. Pearson will lead the team responsible for the sales, support, and operations of Boeing commercial products in VIP, government, and military service and will report to Ihssane Mounir, senior vice president, Sales & Marketing, Boeing Commercial Airplanes.

Ihssane Mounir said, "Erika is perfectly suited to lead the BBJ team, providing world-class support to our global customer base. A proven Boeing leader, Erika has vast industry experience, and deep technical knowledge and is committed to exceeding the expectations of our BBJ customers."

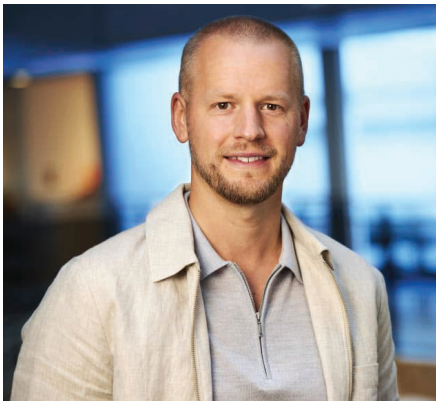
Pearson is a Boeing veteran and most recently served as sales director in the Asia Pacific leading the Singapore Airlines Group, Air New Zealand and Fiji Airways accounts for Commercial Airplanes. Previously, Pearson has held leadership roles across Sales & Marketing, and Product Development since joining Boeing as an aerodynamics engineer in 1993. Pearson succeeds JD Detwiler, who was recently named as a business development leader for Boeing Defense, Space, and Security programs.

Boeing Business Jets brings the best of commercial aviation—ultra-large cabin, long-range jets—into the realm of private air travel, redefining spaciousness, comfort, and convenience. BBJ offers customers a wide range of high-performance airplanes that can be uniquely customized for private, business or governmental use.

With more than 260 Boeing Business Jets sold since the group was founded in 1996, BBJs are supported by Boeing's global service network—the largest OEM-provided network of services, parts, and maintenance.

Saab appoints Viktor Wallstrom as VP and Head of Group Communications

Victor Wallstrom is a solid and strategic leader with great experience.



Viktor Wallström will soon join Saab as new Senior Vice President and Head of Group Communication. Viktor Wallström is currently Executive Vice President, Communication & Sustainability at Tele2, a position he has held since 2013. During his time at Tele2, Viktor's roles have included heading the communication of one of Sweden's largest corporate mergers to date and he has taken Tele2's sustainability work to an industry-leading position.

Prior to Tele2, Viktor was press secretary at the Swedish National Grid and he has also worked as a consultant in Belgium and Sweden, mainly within the fields of public relations, internal communication and public affairs.

Micael Johansson, Saab's President and CEO said, "With the recruitment of Viktor Wallström, we add a solid and strategic leader with great experience to our already strong communication team. We see an increasing interest in Saab from many stakeholders and Viktor will continue to develop our communication, supporting our Swedish and international growth, our sustainability initiatives and our commitment to supporting our customers in keeping their people and societies safe."

Viktor Wallström has a master's degree in political science from Uppsala University, specializing in peace and conflict research.

Industry veteran Anil Singla joins SpiceJet as VP and Head of Engineering

Anil Singla brings with him an unparalleled understanding of the sector and invaluable experience gained from over 35 years of work.

SpiceJet today announced the appointment of Anil Singla as Vice President and Head of Engineering. Singla is an aviation veteran having more than three decades of experience.

Ajay Singh, Chairman and Managing Director, SpiceJet, said, "Anil Singla brings with him an unparalleled understanding of the sector and invaluable experience gained over 35 years of work. I wish him all the best for his new role and look forward to his expertise to achieve the Company's long-term growth plans."

Anil Singla, Vice President and Head of Engineering, SpiceJet said, "I hope to contribute to the growth story of the company and take the airline to greater heights under the able leadership of Singh."

He has previously worked with Air Works as Associate Vice President and Sahara Airlines as Director, Engineering.

Founding CEO of Scoot, Campbell Wilson appointed as MD and CEO of Air India

Campbell is an industry veteran having worked in key global markets cutting across multiple functions.

Campbell Wilson, with an experience of over 26 years in the aviation industry and founding CEO of low-cost airline Scoot, was appointed to the much-anticipated post of CEO and MD of Air India. Wilson is an expert in both full-service and low-cost airlines. He has worked for the Singapore Airlines group for more than 15 years in countries such as Japan, Canada, and Hong Kong. He had started off as a Management Trainee with SIA in New Zealand in 1996. Notably, SIA is a partner in Vistara, an airline owned by the Tatas.

He then worked for SIA in Canada, Hong Kong, and Japan before returning to Singapore in 2011 as the founding CEO of Scoot — a fully-owned subsidiary of Singapore Airlines, which he led until 2016. He then served as the Senior Vice President (Sales and Marketing) of SIA, where he oversaw pricing, distribution, e-commerce, merchandising, brand and marketing, global sales and the airline's overseas offices, before returning for a second stint as the CEO of Scoot in April 2020.

Commenting on the appointment, N Chandrasekaran, Chairman, Air India said, "I am delighted to welcome Campbell to Air India. He is an industry veteran having worked in key global markets cutting across multiple functions. Further, Air India would benefit from his added experience of having built an airline brand in Asia. I look forward to working with him in building a world-class airline."

Speaking on the occasion, Campbell Wilson, said, "It is an honor to be selected to lead the iconic Air India and be a part of the highly respected Tata Group. Air India is at the cusp of an exciting journey to become one of the best airlines in the world, offering world-class products and services with a distinct customer experience that reflects Indian warmth and hospitality. I am excited to join Air India and Tata colleagues in the mission of realizing that ambition".

Turkish Airlines boss Ilker Ayci had first been appointed the Air India CEO by the Tatas, but he declined the offer on March 1.

James Kimball joins FEAM AERO as VP, Technical Operations at Miami HQ

Mr. Kimball has over 35 years of aviation experience leading multi-site aircraft maintenance and materials operations.

FEAM AERO has appointed James Kimball as the new Vice President of Technical Operations based out of their Miami headquarters. Mr. Kimball brings over 35 years of aviation experience leading multi-site aircraft maintenance and materials operations for organizations including Spirit Airlines and JetBlue Airways.

Wayne Sisson, former VP of Tech Ops and FEAM's current COO said, "In his newly appointed position, Mr. Kimball will apply his years of technical experience and leadership to identify and implement operational improvements across our business as FEAM continues striving to be the best-in-class MRO in the industry."

On his appointment, Mr.Kimball said, "I'm thrilled to have been selected to join the growing FEAM family and to be a part of the exciting growth of this forward-thinking company. I also look forward to sharing my experiences as a lifetime Aviation Maintenance Professional to support the team, and to continue the standards of excellence that have become synonymous with the FEAM brand."

In the midst of an active, global recruitment campaign, FEAM is acquiring top talent to fill over 300 positions throughout the country. With the announcement of their second 150,000 square foot base maintenance facility at Cincinnati/Northern Kentucky International Airport (CVG) and international acquisitions of Northern Aerotech and BOSA, FEAM continues to grow at an exponential rate both stateside and abroad.

Cletis Holden joins C&L as Regional Sales Manager for Corporate Aircraft Parts

C&L provides corporate aircraft parts, components, and rotables to customers worldwide.

Cletis Holden has joined C&L Aerospace as Regional Sales Manager for Corporate Aircraft Parts, assisting customers with their corporate aircraft parts, programs, and rotable needs.

Holden has 30 years of aviation parts and component experience throughout the United States and Latin America. He has an in-depth knowledge of various aircraft types, systems, and components, including repair management, along with experience in working with aircraft manufacturers, OEMs, product managers, and airlines.

Martin Cooper, Senior Vice President of Sales for C&L Aerospace said, "We're very excited to have Cletus join us here at C&L. The years of industry experience Cletus brings, particularly with product distributors, makes him an incredible asset for our customers."

Holden joins C&L's corporate parts team as the company continues to build its presence in the corporate aircraft market, specializing in a one-stop solution for parts sales and support on many aircraft types including Challenger, Hawker, Legacy, and BeechJet. Holden is based out of Salt Lake City, Utah.

Matthys Serfontein's role will be to bring SITA's vision of agility & efficiency through digitalization

Digitalization is the key to returning to growth while meeting the new expectations of today's passengers.

Matthys Serfontein joins SITA as the President, Americas after a two-year hiatus to drive SITA's growth in the Americas, where travel has rebounded sharply in the wake of the pandemic. Serfontein will be key to bringing SITA's vision of greater agility, efficiency, and sustainability to the air transport industry through digitalization.

David Lavorel CEO, SITA said "I'm delighted to welcome Matthys back on board. SITA has invested in new solutions that help our customer airports and airlines optimize the passenger experience, maximize efficiency, and keep both environmental and financial sustainability at the heart of their operations. The Americas team, under Matthys's stewardship, will help bring these exciting benefits to customers in the region."

Matthys Serfontein said "As travellers return to the skies, our customers are eyeing digitalization as the key to returning to growth while meeting the new expectations of today's passengers. With its innovative portfolio, SITA is uniquely positioned to support them. SITA has been and continues to be, a trusted partner to the industry, and I look forward to this new opportunity to build on our exciting partnerships with customers in the Americas."

Serfontein has many years of experience in the aviation sector addressing portfolio and business development, previously having served as President of Air Travel Solutions at SITA, where he oversaw the development of SITA's airport and border solutions. Prior to that, he served as Regional Vice President for Airport Solutions in Africa. Before joining SITA, he held several senior management positions at Airports Company South Africa, e. Airports Ltd, and OSI Airport Systems.

International CALENDAR 2022

2022

Date	Event	Venue
31 may-01 June	IATA Annual Ground Handling Conference	Paris, France
07-08 Jun	Engine Leasing, Trading & Finance	London, UK
09-11 June	France Air Expo	France
15-16 June	MRO BEER	Istanbul, Turkey
21-23 June	World ATM congress	Madrid , Spain.
07-09 July	AERO South Africa	South Africa
07-08 Sept	Aero-Engines Europe	Dublin, Ireland
07-08 Sept	Helitech Expo	ExCeL London
20-22 Sept	MRO ASIA-PACIFIC	Singapore
06-08 Oct	Istanbul Airshow	Istanbul Atatürk Airport, Istanbul
18-20 Oct	MRO EUROPE	London, UK
01-03 Nov	Abu Dhabi Air Expo	Abu Dhabi
06-09 Nov	ATCA	Washington, D.C.
06-08 Dec	MEBAA	DWC, Dubai

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