

Satena chooses ATR Global Maintenance Agreement for fleet support Pg **04** 

Pipistrel Velis Electro, next chapter in sustainable aviation training

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Boeing latest F-15EX successfully completes 90-minute test flight paving way for entry into service Pa 20

FEB 15<sup>Th</sup>, 2021



Busy month at VD Gulf hangar with C-checks for Smartavia's Boeing 737NG D Gulf's hangar has an area of 22 ooo square meter area and can facilitate large aircraft MRO. It can accommodate six narrow body (737/A320 size) and two wide body (747 size) aircraft simultaneously

VD Hangar is sure been busy in the New Year. As the COVID-19 gloom is slowly fading away, air travel and MRO industry are gearing up for a new start. Many independent MRO shops are now busy with heavy C and D check.

Smartavia, long standing partner of VD Gulf for heavy maintenance recently inducted their Boeing 737NG for heavy C-check, airworthiness directives and some additional work in VD Gulf hangar. Very soon a second Boeing 737NG is scheduled to undergoing a complete nose-to-tail and some additional maintenance work. The entire program will

be completed by the end of February 2021.

VD Gulf Director Commercial, Ayrat Gilmutdinov said, "It's extraordinary for VD Gulf to welcome Smartavia in our hangar in the early months of 2021. Nordavia was and will continue to be our key customer for many years to come. I am delighted to welcome Smartavia aircraft back to our hangar and we will continue to serve the airline based on mutual and continuous cooperation".

The Trademark Smartavia belongs to the airline "Nordavia-Regional Airlines" and operates scheduled and charter air services to more than 60 airports in Russia and beyond. The airline's aircraft fleet is made up of 11 Boeing 737-700/-800 airplanes with orders of Airbus A320neo.



#### **JANUARY**

- (MRO' inching towards a sustainable future
- Pandemic & Aviation through the MRO lens

#### **FEBRUARY**

- Passenger to Freighter Conversion
- Changing MRO Trends for enhanced customer experience





#### **MARCH**

- Managing downtime efficiently
- AOG Challenges and how to overcome them

#### **APRIL**

- Untapped world of Defence MRO
- Defence MRO Technologies & Innovations





#### MAY

- Tearing down an aircraft
- 15 Inventory and Spares aftermarket

#### **JUNE**

- Next-Gen Cabin Interiors
- Charters- A cut above the rest





#### **JULY**

- Aviation & Digitisation Hand-in-Hand
- Connectivity #Upinthesky

#### **AUGUST**

- The world of Helicopters
- Drones and More





#### **SEPTEMBER**

- Changing trends in AME training
- **15** Aging aircraft maintenance

#### **OCTOBER**

- Expanding MRO markets of the world
- Hangars around the world





#### **NOVEMBER**

- 'MRO' Emerging Markets
- Breakthroughs in MRO

#### **DECEMBER**

- MRO Mergers and Acquisitions of 2021
- Feet and MRO Market Forecast 2022







## Revolutionizing engine maintenance with GE's '360 Foam Wash'

G E has awarded Etihad with technical licenses to use the 360 Foam Wash system to perform engine wash on its fleet of 777 and 787 in-house.

GE Aviation and Etihad Airways have partnered to launch GE's 360 Foam Wash to optimize the performance of Etihad's GE90 and GEnx-1B engines on its Boeing 777 and 787 fleets. The GE's 360 Foam Wash technique is a groundbreaking jet engine cleaning system alternative to water wash method to optimize engine performance by reducing build-up of deposits, lowering engine exhaust temperatures, and improving engine compressor efficiency which leads to low fuel consumption thereby reducing costs.

The self-contained wash system involves injecting a specially-formulated, proprietary solution that removes dust and dirt particles in the engine. It can be used outdoors as well as in maintenance hangars.

GE has awarded Etihad with technical licenses to use this system to perform engine wash on its fleet of 777 and 787 in-house

Jean Lydon-Rodgers, Vice President and General Manager of GE Aviation's After Market Strategic Solutions said, "We are learning more about how our engines operate and how they respond in hot and harsh environments than ever before, and our longstanding relationship with



Etihad has been integral to that process. The research that has gone into producing GE's 360 Foam Wash is a shining example of that."

Etihad's Greenliner programme is a prime example of industry collaboration leading to significant fuel saving and reduction of carbon emission. The new foam wash technique is expected to reduce CO2 emissions by 7,000 metric ton in 2021 alone as compared to the normal wash method for the combined GEnx-1B and GE90 engine fleets.

Commenting further on the ambitious Greenliner project, Paul Kear, Senior Vice President Technical, Etihad Airways said, "Etihad's long-term commitment to net zero CO2 emissions by 2050 can only be achieved by working with partners across the industry to harness innovation and develop new technologies that will provide real, incremental benefits with a measurable impact on emissions. As we look towards the rest of 2021, there is potential to expand the scope of collaboration for our shared sustainability objectives."

Through the Greenliner programme, Etihad collaborates with industry leaders including Boeing and GE in a first-of-its-kind 'eco partnership,' spearheaded by a specially-themed Boeing 787 Dreamliner powered by GEnx engines to test products, procedures and initiatives designed to reduce aircraft carbon emissions on its fleet of 787s.

## AerSale's Goodyear MRO facility gears up for 24 Boeing 757-200 P2F conversions

Post-COVID, the lack of freight capacity has been further exacerbated by the dramatic decrease in passenger aircraft flights whose cargo holds have typically carried the bulk of global air freight

There is a hive of activity at AerSale's heavy MRO facility in Goodyear, Arizona. The preparations are in full swing for the upcoming 24 Boeing 757-200 Passenger aircraft. The aircraft are stored at AerSale's Roswell, NM facility and will be ferried to Goodyear soon.

Commenting on the upcoming conversion business, Craig Wright, AerSale's President of Aircraft & Engine Manage-

ment said, "There is no rival to the B757 as a freighter, and with our younger, high-spec, and well maintained fleet we are ideally positioned to support cargo airlines with turnkey freighters to meet the booming e-commerce market. Post-COVID, the lack of freight capacity has been further exacerbated by the dramatic decrease in passenger aircraft flights whose cargo holds have typically carried the bulk of global air freight."

The aircraft are powered by Rolls-Royce RB211-535 engines, making them the narrow-body freighter of choice due to its attractive payload, range and cost of

ownership characteristics. They were delivered by Boeing in 1999 to American Airlines for passenger transport.

Nicolas Finazzo, AerSale's Chairman & CEO added, "We are confident we can offer our customers these high quality products at competitive price"

Due to AerSale's integrated product and services offerings they can transition a large fleet of passenger aircraft to their best and highest use, whether through outright sale, leasing, or P2F conversions, and at both the whole aircraft and component level for engines and used serviceable material ("USM") piece-parts.



# H225 smooth transition as utility and multi-mission through Milestone Aviation



The H225 is a true multi-mission platform, and the ACHI team has done an incredible job utilizing its capabilities for a variety of critical missions across the US and beyond

Milestone Aviation recently added 11 Airbus H225 helicopters to its ACHI fleet. The aircraft will be delivered throughout 2021 and 2022 and will primarily be used for utility, training and transport missions for US government contract operations. With this announcement, Milestone Aviation will soon lease eighteen H225 helicopters into ACHI's fleet.

Rod Tinney CEO of Air Center Helicopters said, "The strength of our long-term partnerships with Milestone Aviation and Airbus Helicopters has been a key factor in the success of giving the H225 a new life among heavy helicopters operated in non-O&G environments. Through our work with Milestone Aviation, we have been successful in pivoting the fleet towards numerous opportunities within the utility segment. With this new deal, we are positioning ourselves for further growth and continued support of our customers for years to come."

Bruno Even, CEO of Airbus Helicopters said, "The H225 is a true multi-mission platform, and the ACHI team has done an incredible job utilizing its capabilities for a variety of critical missions across the US and beyond. We are proud of the longstanding partnerships we've developed with both Milestone Aviation and Air Center Helicopters and stand ready to support them as they continue to expand operations with the H225."

Pat Sheedy, CEO of Milestone Aviation said, "We are extremely proud of the work we have accomplished with Air Center Helicopters. The team has demonstrated great leadership to successfully transition the H225 into the utility role including some exciting new missions such as supporting the SpaceX program and has fostered a unique partnership in the process. This result has also been achieved thanks to our strong and long-lasting relationship with Airbus. Expert task teams were brought together to identify how best to return these aircraft to service and repurpose the fleet; a major achievement for all involved."

Milestone is one of the largest civilian owners of H225. They have worked closely with ACHI and Airbus Helicopters to repurpose and transition the helicopter type into new missions including Vertical Replenishment (VERTREP), a method of supply of seaborne vessels by helicopter, casualty and medical evacuations (CASEVAC / MEDEVAC).

## Satena chooses ATR Global Maintenance Agreement for fleet support

Since the last two decades, ATR has helped operators reduce maintenance and boost operations through

ATR and Satena have signed a Global Maintenance Agreement for the first time for onsite stock, standard exchange, line replaceable unit repair and propeller blades for its seven ATR fleet for five years.

Commenting on the contract the team of Satena said, ""Choosing the ATR GMA means that we will benefit from the manufacturer's expertise, which brings many advantages. The COVID pandemic has highlighted how essential regional aviation continues to be for passengers, making reliability more important than ever. Our passengers need to know that they can rely on us, so we need to know that we can rely on our fleet. Selecting the ATR GMA ensures that we have the right infrastructure in place to optimise our operations. The availability and depth of support offered by the GMA makes it the best option available for ATR operators and the right choice for us."

David Brigante, SVP Programmes and Customer Service of ATR said, "Everyone is aware of the challenges that airlines are currently facing, so when in the midst of this situation an operator such as SATENA, who is dedicated to supplying essential connectivity, puts their faith in us by choosing our GMA it is something of which we can be immensely proud."

Since the last two decades, ATR has helped operators reduce maintenance and boost operations through GMA.

SATENA is owned and managed by the Colombian Air Force and provides essential connectivity throughout the country connecting remote areas to larger hubs allowing them to access economic or educational opportunities supporting growth and development.





# Air France KLM orders fuel efficient 120 GTF engines to power the A220s

The engines deliver double-digit improvements in fuel and carbon emissions

Air France-KLM Group finalized an order of over 120 GTF engines to power their fleet of 60 Airbus A220-300 aircraft. Pratt & Whitney will provide support to these engines through a long-term comprehensive service agreement while the engine maintenance will be carried out by AFI KLM E&M. The first aircraft is scheduled to be delivered in September 2021.

Angus Clarke, Air France Chief Commercial Officer, responsible for Fleet Strategy said, "Thanks in large part to Pratt & Whitney GTF engines, we expect our A220 fleet to deliver significant economic and operational benefits to Air France — and far lower noise and emissions, which will benefit our custom-



ers, communities and planet. We look forward to working alongside Pratt & Whitney to serve our customers."

Rick Deurloo, chief commercial officer at Pratt & Whitney said, "We're honored by the confidence that Air France has placed in our GTF engines and services and we're excited to welcome Air France back as a customer. We look forward to supporting them with their A220 fleet for years to come."

The A220, powered exclusively by GTF engines, offers significantly lower operating costs compared to previous generation aircraft. The engines deliver double-digit improvements in fuel and carbon emissions. They also provide a significant reduction in noise footprint and produce NOx emissions 50per cent below the International Civil Aviation Organization (ICAO) CAEP/6 regulation.

# Avion Express Malta joins APOC Aviation landing gear division customers

A dedicated landing gear division was the next logical step for APOC's expanding asset portfolio as it offers repair management as a service to operators and has a portfolio of audited LDG repair shops with which it manages repairs as needed

APOC Aviation's landing gear division recently concluded its first landing gear deal with Avion Express Malta. APOC exchanged their ran-out gear with a freshly overhauled A321-200 from stock.

Avion Express Malta is a significant customer for APOC's comprehensive narrow body parts service. Now they have joined a group of APOC's specialized landing gear division customers. Avion Express Malta is a Maltese based ACMI and aircraft leasing operator.

Karolis Jurkevicius, VP Landing Gear Trading, APOC Aviation said, "Finding ways to support operators at this time is vital and if, through our investments, we can help them turn their opportunities into sustainable business for the future, then we've done our job. About

a year ago we discussed their forthcoming requirements for LDGs end 2020/early 2021, and we developed a good understanding of how APOC could tailor our flexible services for their operation. So pre-COVID we knew what would be needed and due to APOC's careful business strategy we had the financial ability to source the right assets and have them ready to go in overhauled condition."

Marko Jalmari Halla, Technical Director at Avion Express Malta added, "To be able to benefit from APOC Aviation's specialist experience is extremely important because we want to concentrate on what we are good at, which is operating the aircraft. Apart from their focus on fresh, young LDG assets with low cycles, they have a great global network for repairs, and they can be extremely flexible regarding the structure of a deal. On this occasion it was best for us to exchange the LDG and we were 10 per cent confident that their technical experts would manage the airworthiness certifi-

cation quickly to minimize TAT."

A dedicated landing gear division was the next logical step for APOC's expanding asset portfolio as it offers repair management as a service to operators and has a portfolio of audited LDG repair shops with which it manages repairs as needed. It also works with third-party experts to tear down LDGs for piece parts for sale, or to support customers' on-going overhaul projects. The lessee can place the LDGs on lease in workshops of their choice; they are not tied into repair contracts as part of the lease agreement. Most customers like this flexibility which is unusual in the marketplace.

Currently around 40 per cent of APOC's LDG stock is leased, 30 per cent is allocated to exchange programs and the remaining 30 per cent is set up for additional lease opportunities, part-out projects and sales. They are now looking out to purchase prime LDGs for stock and increase our inventory by about 50per cent over the next 6 months.





From empty hangars to dropped demand, some lost employees to airport full of packed planes, they have seen it all in 2020. The pandemic year hit them hard just like all of us. But they continue to emerge stronger. We are talking about none other than, Magnetic MRO. Recently, they opened a new facility in Tallinn, Estonia to meet the growing demands from customers.

**Alexey Ivanov,** Executive Sales Director at Magntic Engines shares his thoughts on the global MRO job market, latest innovations from Magnetic MRO to help customers, expansion plans and much more in a candid interview with **Swati.k** 





## • How has Magnetic MRO adapted throughout the COVID-19 Pandemic?

A - Whatever did not kill us, made us stronger. We have passed through 2020 and survived. There were some losses, of course, as we have lost some employees, which is extremely sad, as the demand dropped down and we had to cope with it, we lost certain share of our revenue but we have found our path through the waves and continue doing the business. At a certain period the airlines were almost not operating or operating at 10-20 per cent of their usual capacity. But luckily for us the airplanes can't be abandoned. Even when an aircraft is not flying it still requires certain maintenance and storage. At some moment of 2020 we had airport of Tallinn packed full with parked planes and somebody had to do the maintenance on them. Initially we also had a thought that our hangars would be empty as nobody would want to do C-checks on the planes when there are no passengers to carry but then airlines and Lessors realized that it still makes sense to perform the maintenance (even heavy maintenance) on the planes as when the demand comes back the planes would be ready to fly.

Speaking about our engine division we have managed to keep our shop busy during whole 2020 and in total we have managed to service 50+ engines (for light and medium work)

#### • Magnetic MRO recently opened a new facility in Tallinn, Estonia. How is this facility different from the rest?

A- In the last couple of years we have been making investments into our engine repair facility. Once we received additional tooling in Q1 2020 and added new capability we found out that our old shop was too small to accommodate all the engines we are receiving from the customers.

Perfect solution was found within Tallinn airport site. With more than 300 square meters and dedicated office space, our new facility is just what we need. In our new premises, we are able to accommodate up to 10 engines at a time (for work and storage). A separate space is available for our tooling & equipment as well as for modules piece parts inspection, which is newly added

service of Magnetic Engines. We are able to meet customer's expectations by offering more slots, more flexibility with inductions and freshly refurbished storage area for their valuable assets. In the current situation with unprecedented fall of the passenger traffic around the world which affects all the airlines and the leasing companies, we strongly believe that demand for light and hospital repairs will grow even higher as the airlines and asset owners would be trying to optimize its cash flows and perform lighter repairs or modular replacements where possible postponing overhauls for the future

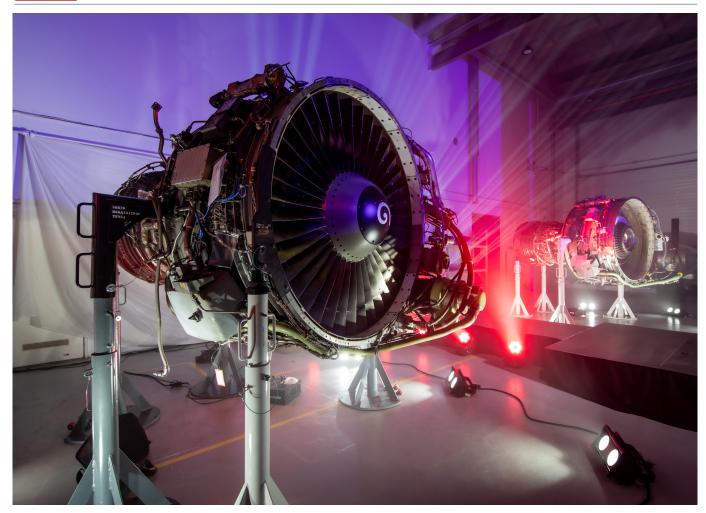
#### Q- How, according to you the COVID −19 Pandemic affected the MRO job market. Do you think its impact will be felt in years to come?

A- It's consolidated forecast from various reputable sources that the demand will return back fully only by 2023-24. But it does not mean there is no work at the moment. Planes still needs to be serviced, spare parts are still needed, engines keep breaking and somebody shall fix it. But competition is definitely









more severe now. Only the most flexible MROs who can meet changing customer demand can stay on the market. Also we see that due to the drop in passenger flow number of airlines are restructuring their fleets, airplanes are returned back to the lessors and all those changing hands gives us some work as well

#### O- Today's engine maintenance market is constantly evolving to meet customer demands? What are the latest innovations of Magnetic MRO for enhanced customer experience?

A- We strongly believe that demand for light and hospital repairs on the engines will grow even higher as the airlines and asset owners would be trying to optimize its cash flow and perform lighter repairs or modular replacements where possible postponing overhauls for the future. Therefore we expect our engine shop will be able to offer to the cusotmers exactly what they are lookign for. Also we are trying to combine our engine shop business with the assets trading business. We can offer spare en-

gine to our cusotmer while their engine is in repair or we can exchange their engine with the engine from our portfolio. Those business lines are complementing to each other. We can have half life engine which we put on green time lease to the customer and then when they burn it off we take it back, extract the modules which still have remaining life in them and offer those modules to the customers who are seeking for the modular replacements for thier engines

#### O- How soon do you think engine maintenance demand will hit PRE-COVID levels?

A- We think it will take 2-3 years for 2019 demand to return back fully. But this is total demand in total amount of revenue. The most expensive repairs are postponed and this is affecting total numbers severely. But if we speak about light and module repair demand I think it's already in the pre-pandemic level.

## • The entire aerospace Industry is geared for sustainable aviation. Newer

#### & advanced fuel efficient engines are on the rise. How is Magnetic MRO playing its part in sustainable aviation?

A- Magnetic Engines is serving conventional assets and it will be giving us the job for many years ahead. Even after usage of sustainable fuel for airplane engines increases significantly it will not change the maintenance for engines drastically.

#### Q- Lastly, what can we expect from Magnetic MRO in coming years?

A-Magnetic MRO remains aware of the fact, that the virus has not disappeared, but at the same time we are not worried much on survival (thanks to the immediate cost-cutting measures at the start of the pandemic), but focusing on capturing the opportunities which the chaos produces. Magnetic MRO has in its plans following milestones coming up: there will be brands added, there will be expansion of some existing business units as well as vertical expansion in areas we operate, there will be some M&A plans.



## Breeze Aviation takes delivery of first E190 from NAC



Regional aircraft like the E190 were the first to be returned to service as they are ideally suited to serve post COVID demand

Nordic Aviation Capital recently delivered its first Embraer E190 out of fifteen aircraft contract to Breeze Aviation on lease. The huge contract of fifteen aircraft represents a significant vote of confidence in the E190 and in NAC's

TrueChoice Flight Hour agreement with GE for the CF34-10E engine.

Jim Murphy, CCO of NAC said, "This announcement coincides with significant interest in the E190 worldwide. Regional aircraft like the E190 were the first to be returned to service as they are ideally suited to serve post COVID demand. This aircraft type is once again experiencing resurgence as it al-

lows airlines to continue to profitably service all of their pre-COVID markets and retain pre-COVID frequency. The Breeze team has vast experience with the E-Jet family, and we are excited to work with them as they begin their new airline with the E190, an aircraft type ideally suited to their exciting new network."

David Neeleman said "We couldn't be happier with our partnership with Nordic Aviation Capital and to take delivery of our first Embraer E190 from NAC. We look forward to a long and mutually-beneficial relationship together as well as the next 14 aircraft."

NAC is delighted to begin this new partnership with Breeze and continue its long-standing relationship with veteran aviation entrepreneur Mr David Neeleman who has a proven track record of success having founded five commercial airlines, including Azul Airlines in Brazil and JetBlue Airways.

## Alaska Airlines to replace the Airbus fleet with more efficient and environment friendly Boeing 737-9 MAX

For the coming five weeks, all all divisions at Alaska Airlines are on their toes to follow strict readiness timelines like rigorous rounds of test flight, training of maintenance technicians on the new fleet to make the aircraft ready for passenger service

Alaska Airlines recently took the delivery of their first Boeing 737-9 MAX planes as a part of the new phase of their modernization strategy. The first flight is scheduled to enter passenger service on 1st March 2021 to be soon followed by the second plane in late March. Alaska Airlines signed a restructured order agreement with Boeing in December 2020 to receive a total of 68 737-9 MAX aircraft in the next four years, with options for an additional 52 planes.

These 68 aircraft will largely replace Alaska's Airbus fleet and move the airline substantially toward a single, mainline fleet that's more efficient, profitable and environmentally friendly.

Alaska Airlines President Ben Minicucci said, "We've eagerly waited for this day. It was a proud moment to board our newest 737 aircraft and fly it home. This plane is a significant part of our future. We believe in it, we believe in Boeing and we believe in our employees who will spend the next five weeks in training to ensure we're ready to safely fly our guests."

Before the commercial operations begins, all divisions at Alaska Airlines are on their toes to follow strict readiness timelines like rigorous rounds of test flight, training of maintenance technicians on the new fleet, verifying specific preparations etc which should take a little over a month.

John Ladner, an Alaska 737 captain and vice president of flight operations said, "Our pilots are the best trained in the industry. With the 737-9, we're going above and

beyond with our training program, even more than what the FAA is requesting. We have high confidence in this aircraft. It's a tremendous addition to our fleet, and we're ready to start flying it in March."

The AMEs will receive about 40 hours of "differences training," which distinguishes the variations between the new MAX and the airline's existing 737 NG fleet. Certain technicians will receive up to 40 additional hours of specialized training focused on the plane's engines and avionics systems.

The pilots will receive eight hours of MAX-specific, computer-based training prior to flying the aircraft over the course of two days, which includes at least two hours of training in Alaska's own certified, state-of-the-art MAX flight simulator.

The new aircraft will be using SAF provided by EPIC fuels.





## Pipistrel Velis Electro, next chapter in sustainable aviation training



In Europe there are more than 100 small GA airports which have severe flight restrictions, or the training there is not allowed because of noise.

Green Aerolease and Pipistrel Aircraft recently signed an agreement for 50 EASA Type-certified 2-seat aircraft Pipistrel Velis Electro, designed for PPL pilot training. These initial 50 aircraft will be offered for rent to pilot schools and clubs to ensure the new generation of pilot training with the support of French Federation of Aeronautics.

According to Charles Cabillic, founder of W3 and Green Aerolease, "We are particularly proud to make this partnership with Pipistrel Aircraft, pioneer of breakthrough innovation in the light aviation sector. I am convinced that the aeronautical sector has a great future, with the progressive arrival within two to three years, of light electric or hybrid aircraft designed for business travel or leisure aviation, because it will permit to revive the French aviation. These future aircraft are, indeed, an answer to the growing stakes of regional mobility to ensure the economi-

cal regional continuity and the serving of middle-sized cities. Consequently, it is essential to anticipate from now on the capacity to dispense professional trainings to our future pilots."

Pipistrel is the first European aircraft manufacturer, and the only one so far, to obtain an aircraft certification from the European Union Aviation Safety Agency (EASA) for its electric aircraft, the Pipistrel Velis Electro, the ideal aircraft for initial training of pilots. With this Pipistrel proves that electric aircraft is not only possible, but also commercially useful. Velis Electro currently offers the maximum level of performance, which is achievable with current and modern technology.

Ivo Boscarol, founder and CEO of Pipistrel Aircraft said, "I am delighted to see the confidence given to us by Green Aerolease who decided to commit with us to participate in the reduction of the environmental impact of the aeronautical sector. The European certification of our Velis Electro, designed for initial training of pilots, is an important step towards the development of a carbon

neutral-fleet of aircraft, respectful of the environment. This partnership will allow the use of zero-emission aircraft to the clubs and schools who are not in the position to invest in procuring an aircraft fleet, but they can afford reasonable monthly rental fees. With this concept Green Aerolease will accelerate the energy transition of aviation to climateneutral and emission-free following the guidelines of the European Green Deal and help Pipistrel to reach its objective to sell 200 Velis Electro until end of 2021."

This agreement stresses on the rising need of low noise and zero-emission electric aircraft to regional airports and urban areas. In Europe there are more than 100 small GA airports which have severe flight restrictions, or the training there is not allowed because of noise. Velis Electro with only 60 dB of noise can bring back the flight to all of them. The expected deployment, first off in France, will be done as soon as mid-2021 and will spread progressively to several European countries.

Jean-Luc Charron, president of the French Federation of Aeronautics said, "The French Federation of Aeronautics has always supported innovation. With Pipistrel, we created a FabLab two years ago at Toussus-Le-Noble to test this brand-new electric aircraft. Thus, more than 200 flight hours were done with great performances, very important noise reduction and also a tremendous reduction of carbon emissions. After the experimentation, it is now time to deploy the aircraft fleet, and I am very proud to support this project which will allow clubs to create a new dynamic in this aeronautical world which is living an unprecedented transformation."

Green Aerolease is focused on accompanying and financing the decarbonization of the air transport and light aviation sectors by accelerating breakthrough innovations in the domain of mobilities. Within the next 3 years, 200 Pipistrel electric aircraft are to be deployed in France and in the coming few years to other countries through AAS (Aircraft as A Service). Finesse Max, Pipistrel distributor in France, will work in partnership with Green Aerolease to manage the support, after-sales service and maintenance network in order to keep the highest availability for the Velis fleet.



#### **AGREEMENTS, MOUS AND PARTNERSHIPS**

# 'Air Works' becomes first Indian company to partner Boeing in its 'BIRDS' hub initiative

Birds hub is Boeing India Repair Development and Sustainment hub which is an in-country network and alliance of suppliers led by Boeing in India that envisions a competitive MRO ecosystem

Boeing recently announced strategic agreements with Air Works for the maintenance, repair and overhaul of two key Boeing defense platforms in India, the P-8I operated by the Indian Navy (IN) and the VIP transport fleet operated by the Indian Air Force (IAF).

This collaboration is an important first step under its recently launched initiative, the Boeing India Repair Development and Sustainment (BIRDS) hub, which is an in-country network and alliance of suppliers led by Boeing in India that envisions a competitive MRO ecosystem for engineering, maintenance, skilling, repair and sustainment services of defense and commercial aircraft. The hub aims to grow capabilities in India in the areas of heavy maintenance, component repairs, training and skilling of IAF and IN maintainers.

"This strategic agreement with Air Works positions us to generate significant value for our defense customers locally by delivering faster turnaround, exceptional operational capability and mission readiness on Boeing aircraft. This is an important step in our commitment to the government of India's Atmanirbhar Bharat vision of developing India as an MRO hub," said Surendra Ahuja, managing director, Boeing Defence India.

"The strategic collaboration with Boeing transforms our existing relationship into a new, enriched avatar. In this new decade, the growing international recognition and enhanced dimensions of our collaboration are testament to our demonstrated expertise in the defense and aerospace domain. We are proud to be the first Indian company to partner Boeing as part of its Boeing India Repair Development and Sustainment (BIRDS) hub initiative and we remain excited, committed and privileged to have been chosen to work with them on such prestigious and critical projects that build as well as test India's indigenous MRO capabilities," said D Anand Bhaskar, MD & CEO, Air Works.

An important aspect of the hub is training programs to increase skilled manpower by developing sub-tier suppliers and medium, small and micro enterprises (MSMEs) to build high quality MRO capabilities in India.

## Bombardier partners with StandardAero for enhanced support to Challenger & Learjet customers

Learjet and Challenger aircraft operators will now have added peace of mind by reducing downtime and costs, while leveraging Bombardier's OEM knowledge

Bombardier has expanded its service center offering in Europe by signing a new agreement with StandardAero. This partnership will enhance the customer experience for Learjet and Challenger aircraft customers by providing enhanced engine and APU repair and overhaul capabilities at the Biggin Hill and Berlin service centres in addition to Bombardier's line maintenance stations in Europe. Dedicated StandardAero technicians will now be available on site at these locations to create a one-stop-shop for all Bombardier aircraft operators' engine, APU and airframe service needs.

Jean-Christophe Gallagher, Executive Vice President, Services and Support, and Corporate Strategy, Bombardier said, "Bombardier is committed to ensuring its customers receive exceptional service support to keep their aircraft in the air and

this new collaboration leverages Standar-dAero's industry-leading engine repair and overhaul maintenance capabilities with Bombardier's own extensive support services onsite to create the ultimate one-stop-shop for our customers. Through this agreement, our operators will benefit from the unmatched expertise and proficiency provided by both Bombardier and StandardAero, delivering the service experience they demand and deserve."

Learjet and Challenger aircraft operators will now have added peace of mind by reducing downtime and costs, while leveraging Bombardier's OEM knowledge, bundling engine and APU maintenance with other Bombardier services in-house, including major airframe work. This advantage provides customers with the flexibility to have one single proposal and project management of airframe, engine and APU requirements, as well as all-inclusive pricing options.

"We are thrilled and proud to be working with Bombardier to enhance our maintenance offerings to customers and solidify our standing as one of business aviation's leading engine MRO providers," said Tony Brancato, President, Business Aviation, StandardAero. "This collaboration further underscores our commitment to customers by providing expanded services and ensuring we continue to enrich their overall maintenance experience."

Skilled StandardAero technicians available at Bombardier's service locations in Europe will provide additional capabilities ranging from engine borescope inspections to on-condition engine disassembly and repair. This includes troubleshooting and repair of any recorded engine squawks.

The agreement with StandardAero builds on Bombardier's comprehensive global customer service commitment to provide the best customer service experience in business aviation today. Bombardier's increased investment in infrastructure, new technologies, resources and capabilities continues to drive value for customers and their aircraft.



#### **UPCOMING FACILITIES & HANGARS**

# BAA Training, Spain all set to become largest training center in Southern Europe

State-of-art A320ceo FFS will be ready for training by March, delivering 44,000 simulator hours and ensure recurrent training for 4,300 pilots annually

CAE manufactured, first of its kind, brand-new Airbus A320ceo Full Flight Simulator (FFS) is finishing final assembly at the BAA Training Centre in Spain. Certified by EASA the state-of-art A320ceo FFS has the latest innovative Tropos 6000XR visual system, offering pilots an authentic visual feel. Besides it is also fully suited for completing the Upset Prevention Recovery Training. It will be ready for training by March, once the preparation and auditing procedures are finalized.

Egle Vaitkeviciute, CEO at BAA Training said, "Despite the coronavirus has seriously challenged the aviation industry, and the implications make themselves felt, BAA Training is confidently moving towards fulfilling its business development and expansion strategy. BAA

Training Spain's goal is to become the largest and highly innovative aviation training center in Southern Europe, catering to the demanding airlines' pilot training needs and the upcoming recovery of aviation."

The first groups of Type Rating pilot students will start training in by March or April 2021. BAA Training has further ambitious plans of adding 5 more simulators in addition to the A320ceo.

BAA Training Spain has introduced a new cost-efficient opportunity to complete approximately 50 per cent of the Type Rating program on an FTD Level 2 instead of an FFS. This possibility will save airlines up to 40 per cent of their financial resources for each hour on the substitutional device.

Aurimas Urbonas, Managing Director at BAA Training Spain said, "It is an attractive alternative for customers interested in meeting rigorous regulatory requirements and at the same time allocating less budget for pilot training. This is especially relevant now as the airline industry has suffered a profound decline."

BAA Training Spain will be increasing the complexity of its go-to-market strategy and adding more equipment. It will be a convenient and cost-effective choice for carriers seeking steady recovery after the pandemic. It can deliver 44,000 simulator hours and ensure recurrent training for 4,300 pilots annually. It has room for 11 simulator bays in total, making it the biggest aviation training center in Southern Europe.

A modern BAA Training Spain training center is just 10 minutes away from El-Prat, the dominant international gateway to Barcelona and the second busiest airport in Spain (52,686,314 passengers in 2019). The airport is a central hub, and Barcelona is a focus destination for many European airlines.

















#### MRO BUSINESS TODAY

#### **UPCOMING FACILITIES & HANGARS**

## **Envoy Air expanded Springfield facility to hold scheduled overnight maintenance for three E-175**



The facility will create more jobs in the Springfield region, as well as additional potential for enhancements to air service in the future

Envoy Air will expand their aircraft maintenance operations in Springfield, Missouri by moving into a new and bigger facility which will allow them to service more Embraer E-175 aircraft. Apart from additional space to house three aircraft inside the facility will have additional room for more aircraft out-

side, dedicated areas for parts storage, training, employee parking and administration

The facility owned by Springfield-Branson National Airport will be ready by late 2021.

Jay Murray, Vice President of Maintenance said, "The new facility will allow scheduled overnight maintenance for up to three E-175 aircraft and provide line maintenance for the daily American Eagle service from Springfield to American's hubs in Charlotte, Dallas/Fort Worth and Chicago. It will be staffed by Envoy employees, including Mechanics, Inventory Control Clerks, Management and Support personnel. We thank state and local officials at the Springfield-Branson National Airport, the airport Board of Directors, and the Chamber of Commerce for their continuous efforts and partnership. This new facility will continue to support our maintenance operation."

Governor Mike Parson said, "We're excited to see Envoy Air grow and expand in the Springfield region. The new jobs and investment are great news for the state of Missouri that will help reinforce our connectedness to neighboring states and the entire country."

In addition to creating new jobs and investment, this expansion demonstrates American's commitment to ongoing air service in the Springfield region. The project will also benefit Missouri as a whole with new jobs that will attract and retain talent from aviation training programs around the state.

## Tata Boeing Aerospace expands manufacturing capabilities in India with new production line for Vertical Fin Structures

TBAL manufactures aero-structures for Boeing's Apache helicopters, including fuselages, secondary structures, and vertical spar boxes in Telangana

Boeing recently added a new production line at its joint venture, the Tata Boeing Aerospace Limited (TBAL) in Hyderabad, Telangana, to manufacture complex vertical fin structures for the 737 family of airplanes. The expansion marks a significant milestone for the joint venture.

Praising Boeing for their effort, K. T. Rama Rao, Telangana Municipal Administration and Industries Minister said, "This is a noteworthy step in the growth of India's aerospace and defense manufacturing. Telangana is an established hotbed for India's defense and aerospace industry supported by a robust ecosys-

tem, including a large pool of skilled and industry-ready work-force. I congratulate Boeing and Tata for this milestone."

"Tata Boeing Aerospace Limited is an example of Boeing's commitment towards co-development of integrated systems in aerospace and defense in India, for the world, and a reflection of the country's Atmanirbhar Bharat initiative," said Salil Gupte, president, Boeing India. "Skilled talent, robust infrastructure, ease of doing business, and a highly responsive government administration make Telangana an ideal destination," he added.

Sukaran Singh, Managing Director and Chief Executive Officer, Tata Advanced Systems, said, "The expansion of our aerostructure manufacturing capabilities with the new production line to deliver complex vertical fins for the 737s is another landmark in our collaboration with Boeing. This new production line for complex vertical fin structures is another testament for TASL's commitment towards making India self-reliant in defense manufacturing."

The vertical fin is a complex structural part and the new production line will utilize cutting-edge robotics and automation in manufacturing. The expansion will create additional employment opportunities and enable skill development as well. Spread over 14,000 square meters, the state-of-the-art facility has been producing aero-structures for Boeing's AH-64 Apache helicopter, including fuselages, secondary structures, and vertical spar boxes for customers worldwide.



#### **UPCOMING FACILITIES & HANGARS**

## Rolls Royce and HAL to established authorized maintenance center for Adour Mk871

Rolls Royce is committed to co-develop future Defense Technology with India, in India, for India and the global market.

Rolls-Royce and Hindustan Aeronautics Limited (HAL) are further expanding their strong partnership of over six decades to establish an authorized maintenance center for Adour Mk871 engines to support Rolls-Royce's global customers.

Mr. R Madhavan, CMD of HAL said, "We are looking at new areas of cooperation and exports to countries which Rolls-Royce and HAL together contribute to, in aerospace application."

The first MoU signed between the two companies is to establish an Authorized Maintenance Centre for Adour Mk871 at HAL. HAL has the over three decades of experience in MRO of Adour engines in India with a license from Rolls Royce. A Letter of Intent (LoI) was also signed to work towards making Adour Mk871 engine parts in India for several international customers.

Kishore Jayaraman, President, Rolls-Royce India and South Asia said: "We value our long-standing partnership with HAL and are proud to have been serving the Indian Armed Forces together for several decades now. Our journey with HAL is the original 'Make in India' story that started in 1956 when our Orpheus engines were first manufactured in India. We share strong synergies with HAL and as we look at future programmes, we believe there is immense potential to further build on our shared capabilities."

In addition, HAL has recently been awarded new business with Rolls-Royce to supply forgings including shrouds, cases and seals for Rolls-Royce's Trent family of engines and for the Pearl 15 engines. These parts would be manufactured at HAL's Foundry and Forge Division at its state-of-the-art facility in Bengaluru.

Alex Zino, Executive Vice President

– Business Development and Future

Programmes (Defense), Rolls-Royce said:

"We are proud of our long and rich history of partnering in India and providing the power to protect through many decades. We have been making in India for more than 60 years and we believe that now is the time to move from 'Make in India' to 'Create in India'. We are committed to co-develop future Defense Technology with India, in India, for India and the global market. In partnership we will work to deliver economic benefit and achieve India's vision of self-reliance in the Defense sector. Today, we are delighted to further expand our valued partnership with HAL as we continue co-building capabilities in the Indian ecosystem to support global markets, in addition to further serving the needs of a future-ready defense force in India."

These partnerships will further strengthen Rolls-Royce's regional service footprint and also help catapult India as a global hub for defense sourcing, assembly, and MRO services.



## **April 27-29, 2021 Orlando, FL:**

In-person/livestream conference and in-person networking

## May 4-5, 2021:

On-demand content and virtual meetings/ networking



Safety protocols in place

## Attend Live or Virtual



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#### **UPCOMING FACILITIES & HANGARS**



# AJW's opens new facility in Milan to support easyJet's EU operations



This facility holds a significant inventory of over 10,000 lines of stock across 3,000 part numbers of rotable, repairable and C&E items

AJW Group has recently opened a 35,000 sq ft warehouse in Milan, adjacent to Malpensa airport. This facility will mainly support easy-Jet's EU operations as a part of a recently signed complete supply chain solution contract.

This facility holds a significant inventory of over 10,000 lines of stock across 3,000 part numbers of rotable, repairable and C&E items. The facility is staffed round the clock with about 30 technicians delivering and operating under easyJet's part 145 approvals. The EU network will be fully supported by a bespoke logistics service from this new facility.

Brendan McConnellogue, easyJet's Director of Engineering and Maintenance said, "The opening of the Milan facility has shown what can be achieved through close collaboration between AJW and easyJet, and the achievement is made even more impressive considering the impacts of COVID-19. The facility will further improve our logistics network in support of the European based fleet. The opening of this facility allows us to continue to serve our customers whilst maintaining safety as our number one priority."

Despite global travel restrictions and numerous local lockdowns, AJW has succeeded

in implementing the project on schedule, with physical infrastructure, IT and recruitment completed, and further training ongoing. The facility was added to easyJet's MOE in December 2020 and the stock transition was performed throughout December and early January. The facility went live from 28th January, supporting the easyJet network.

Tom De Geytere, Chief Sales Officer of AJW Group said, "The outstanding team effort to deliver this project on-time during a global pandemic is celebratory. The agility and 'can do' attitude of AJW was exemplary despite ever changing travel restrictions and local lockdowns. Our cross-functional teams have worked incredibly hard to deliver. We are thankful for the collaboration we have received from easyJet and the engagement of our local freight partner, who assisted in delivering under tight time pressures as a trusted and reliable partner. We look forward to ensuring that easyJet's EU services continue to operate seamlessly."

The opening of the new EU facility will ensure an ongoing efficient delivery of spares to easyJet aircraft across Europe and will speed up operational recovery with improved logistic links by supporting network locations close to the hub.







#### **EXCLUSIVE INTERVIEW**

#### Q- Can you elaborate on 'Green-time' management solution(s) provided by APOC to support your customers?

A- At this point in time there is a higher demand for leasing of engines. Operators are seeking to delay expensive overhauls in favour of green-time leases from APOC and we are meeting that growing requirement.

We're also receiving more requests nowadays from operators that used to have long term LDG overhaul agreements with various MRO providers. Now these airlines are looking for more cost-effective options, and interest in serviceable, green-time LDGs is much greater than before the pandemic.

- As airlines continue to delay full engine shop visits due to COVID-19 pandemic, what solutions would you give the airline customers to save maintenance costs
- A- With airlines delaying full engine shop visits, APOC's engine division is focused on two main strategies. One is to provide 'green-time' lease options to support operators as they begin to transition to normal service. The other is to fulfil the demand for AR and OH parts as engine shops perform lighter workscopes to save maintenance costs whilst keeping the global fleet flying.
- Q-APOC Aviation has ambitious plans to expand the new engine division. Can you elaborate on the expansion strategy A-We have a close network of airline customers with whom we are developing discreet lease agreements for older engine assets. The V2527-A5, alongside the CFM56-3/5a/5b/-7b engine variants are in high demand. With the delivery delays and groundings of new aircraft we are currently seeing postponed shop visits and reduced tear-down activity for mature engines which is testament to their reliability and on-going marketability.

We are building capability for the future and evaluate our engines on strict criteria - in particular maintenance history & records, LLP status and QEC Inventory. We have been very active in the engines marketplace over the past 12 months and have built a portfolio of five CFM56 engines that we have purchased for leasing, trading and teardown.

#### •- APOC opened a new dedicated landing gear division just before pandemic. How did the division fair in the pandemic and how is the picture changing post pandemic?

- A The entire industry did go on hold, and with all the airlines focusing on preserving cash and minimizing their expenses, opening a new division might have seemed bad timing. But we had a great belief in our vision to have a specialized LDG unit where our customers could find all they need in one place. The results show that it was a very good decision. Even though the pandemic has obviously impacted the industry and we delivered less, than we originally predicted, it was still more than it was before the pandemic. Our LDG division closed the year with greater profits that we achieved in 2019.
- APOC is a fairly young company, currently in its sixth year of business. Can you tell us some important milestones in the five years.
- A-APOC Aviation has historically enjoyed triple digit annual growth year on year results from our different approach. Inevitably along with the industry in general we have been negatively impacted by COVID-19. However, the significant growth of the business alongside global market recognition and our excellent reputation of closing successful deals, secured by our solid finance credentials has enabled us to solidify our position in the market.
- **2015** APOC achieved accreditation to ASA100/ISO 9001/AS 9120 2016 Pioneered crowd-funding to raise capital
- **2017** Industry bench-mark proprietary software platform 'Alicanto' updates stock in real-time every 5 seconds. Unique secure online log-in
- **2018** Exceptional quality control with a rejection rate of 0.7% well below the industry average
- 2019 Euro 4m raised in 15 minutes via crowd-funding. We opened our new engines division. We moved to a brand new facility close to Rotterdam.
  2020 Opened our dedicated landing gear division. We secured a new equity partner that can help us grow significantly.

In 2021 we will triple the size of our facil-

ity with the opening of a new purposebuilt facility adjacent to our current site within 6 months. We also opened our first stock hub in Singapore and this will be followed by North America and China soon. In addition, we are exploring options on opening a new MRO division as well.

- MROs and OEMs across the world are evolving and changing their ways of work to offer better customer service. What are your strategies to adapt to this changing environment
- A- We have been finding new ways to business right from the start at APOC Aviation. The customer experience always remains our focal point and being a technology driven business we turn to those solutions to deliver something special.

From a customer perspective APOC can offer services to customers that other systems technically cannot do. Everything is tracked in real-time. Every click is traced and registered. Our data analysts continually strive for better ways to process tasks – this is a huge strength for APOC and makes us different. Scalable. Accurate. Automatic. This generates excellent customer feedback 'the best paperwork in the industry'. We never stand still. Machine learning methods have created our new algorithm that is five times more accurate than our previous one. Because of this scalability we have the power to grow the business with minimum additional manpower.

Also, our customers receive little gifts when they order a package of spares. If there is anything we can do to improve our service and make the experience of working with APOC an outstanding one, we explore it with enthusiasm.

- How soon do you see the aircraft lessor market recovery given the current situation?
- A-Although we offer some leasing solutions for engines and LDGs, APOC Aviation is not an aircraft leasing company. But we do have some observations. Optimistic thoughts of airline recovery this Summer look to be premature and predictions for a ramp up to flight operations worldwide have now been pushed back to 2022. But as soon as the signs



are there it will happen quickly. Currently aircraft lessors are holding onto their assets rather than dumping them into the marketplace or selling cheaply. They have confidence in the underlying strength of the aviation market and are keeping them on their books. At APOC we believe that leasing transactions at one point will shoot up again – and there will be new dry and wet lease options to help airlines to operate profitably once again. Investors remain confident in the sector for the long-term.

- As more and more aircraft go into retirement, do you feel the USM market is positioning itself to be the fastest growing MRO segment?
- A-There was a shortage of USM before the crisis. Currently more aircraft are being retired but as soon as recovery starts this will diminish. I do not see a significant long-term effect of over-supply in the USM market because making cost efficiencies will be the primary task for airlines as they struggle to survive. They have always been cost conscious of course, but now the imperative to make savings will override almost everything else. USM will always offer a lower-cost alternative to new parts.
- According to you what kind of predictive tools could be leveraged to meet

- the growing demand for USM parts?

  A-From APOCs perspective we are always looking at new trends in supply and demand. We model this forward so we can be sure to meet predicted demand buying the right narrow body aircraft assets and building the right inventory is crucial for our business.
- In any business, scalability is vital to future growth. APOC is a very data driven business and our proprietary software has been the main driver of our success. At the outset we decided to create our own software from scratch rather than use the industry standard. Amongst other features, this uses bespoke algorithms that ensure we buy the right assets at precisely the right prices.
- A-With a rising number of aircraft retirements newer and more efficient aircraft are coming into the market. They are more efficient and require less maintenance. Do you think this could lead to fewer replaced parts and less business for MROs?

  Manufacturers always claim this but

Manufacturers always claim this but aircraft always do get older an even new aircraft need replacement parts. However, APOCs focus is on mid-life to older aircraft, those reaching their 10-12 year checks. We ensure we are at the forefront of this market with the

right parts to meet customer demand. Our policy is to tear down the newest aircraft assets that we can, so our parts are latest technology. They are not new parts, but almost new. Newer aircraft do not mean fewer replacements of parts. This is especially the case for life limited parts.

- As the aviation industry gears up Post COVID-19, what would you like to tell our readers?
- A Don't be afraid of changing your business model during these strange

Don't keep focusing on the parts of the business that used to work in the past, but focus on the parts that are working right now. For us, that means focusing on our leasing of engines and LDGs. This has really started to flourish during COVID, because customers tend to sit on their cash more during these times. When the market recovers you can always return the focus to the services and products that worked in the past. But for now, you just have to ride it out. Also, don't be afraid to act anti-cyclical if you have the means to do so. We have secured major funding so we could do just that. Now prices of assets are at an all-time low and we have made some advantageous purchases, in preparation for the market recovery.



## CAS awarded FAA's prestigious Diamond Award for fifth consecutive year



To qualify for the award, 100 percent of eligible employees must earn an individual AMT Certificate of Training during a calendar year

Certified Aviation Services (CAS) has another feather in its cap. Recently they were awarded the Federal Aviation Administration Diamond Award for Excellence in Training for its component repair shop for fifth consecutive year in a row. The FAA Diamond Award is considered to be the most prestigious awards in the FAA Aviation Maintenance Technician (AMT) Awards Program.

On receiving the award CAS' President of Components, Brad Caban, said, "This

is one of those Annual Goals that we all look forward to exceeding. In 2021 we will enhance our training program by bringing in tribal knowledge from our sister companies – CAS Line Maintenance, and CAS Hangar Maintenance to give us a better feel for things we should look for in our world, to make things easier in theirs."

To qualify for the award, 100 percent of eligible employees must earn an individual AMT Certificate of Training during a calendar year, which means each eligible employee must complete a minimum of 12 hours of training. It is designed to reward those technicians and companies who participate in additional training that exceeds FAA rules, regulations, and industry standards.

CAS operates its FAA-certified component repair facility in Fairhope, Alabama, specializing in overhauling and repairing pneumatic as well as hydraulic components

## STS Line Maintenance received FAA Diamond Award for third consecutive year

The promotion of safety through regular and ongoing training has always been a focal point for the line maintenance teams at STS Line Maintenance

STS Line Maintenance has received the FAA Diamond Award continuously for the third year in a row highlighting their commitment to aircraft maintenance training and safety.

Mark Smith, Group President of STS Aviation Services said, "Given the unprecedented year we've all just experienced, this is quite an accomplishment. The promotion of safety through regular and ongoing training has always been a focal point for our line maintenance teams, but to receive the FAA Diamond Award means 100 per cent participation from our entire staff. That's hundreds of people rallying around a common cause during one of the most trying times in



modern history."

Robby Bush, Sr. Vice President and General Manager of STS Line Maintenance said, "We fix, troubleshoot and modify commercial aircraft for a living. That's a responsibility and a privilege we take very seriously. This award reflects that, and I'm proud of our team for rallying together to overcome a few sizable obstacles and capture this recognition on behalf of the organization."

STS Line Maintenance enrolled itself into the FAA FAAST program in 2020 to promote safer skies through the ongoing training and education of Aircraft Maintenance Technicians. In line with this program, every touch labor specialist employed by them has to complete this year long program with ratings levels that exceeded the Federal Aviation Administration's justifiably high standards.



## Boeing latest F-15EX successfully completes 90-minute test flight paving way for entry into service



Boeing F-15 Chief Test Pilot Matt Giese checked out the multirole jet's avionics, advanced systems and software. A test team monitoring the data

collected during the flight in real time confirmed that the aircraft performed as planned

Boeing's latest F-15EX fighter jet successfully completed its first flight today proving its merit, safety and readiness to enter US defense service. The fighter jet completed a 90 minute test flight from St Louis Lambert International Airport confirming its perfect performance throughout the flight and paving its way for an early delivery of first two jets to the US Air Force later this year. US Air Force had awarded Boeing with a contract to build first lot of eight jets in July. This Boeing plans to deliver the aircraft in a record time of less than nine months within signing of the contract.

Prat Kumar, Boeing vice president and F-15 program manager said, "Our work-

force is excited to build a modern fighter aircraft for the US Air Force. Our customer can feel confident in its decision to invest in this platform that is capable of incorporating the latest advanced battle management systems, sensors and weapons due to the jet's digital airframe design and open mission systems architecture."

One of the major advantages of F-16EX is its digital backbone can serve as a testbed for future technology insertion. Modern variants of the F-15 also include fly-by-wire flight controls, an all-new digital cockpit, modern AESA radar and the ADCP-II, the world's fastest mission computer. The F-15EX, the most advanced version to date, features the Eagle Passive/Active Warning and Survivability System electronic warfare system to improve mission effectiveness and survivability for operators.

# Sikorsky riding strong on its 62 year old legacy of famous 'White Top'

The VH-92A, also called a "White Top" due to its notable white and green livery

Sikorsky is recently awarded a contract to manufacture a total of 23 VH-92A Presidential Helicopters for US Marine Corps. The next helicopter is due for delivery later this year. With this contract, Sikorsky will continue its legacy of 63 years of transporting the president and vice president of USA for decades to come. The contract was signed on 5th February 2021 by US Navy for five aircraft as the final lot of VH-92A presidential helicopters to be delivered in 2023. Currently final modification on 12 production aircraft is being carried out at the Stratford, Connecticut and Owego facilities in New York.

Paul Lemmo, President, Sikorsky said, "This contract to build more presidential helicopters shows our customer values Sikorsky's proven record of supporting this no fail mission for decades and is confident in our ability to innovate and deliver this next generation aircraft flying the president well into the future.



This aircraft has a special place in the hearts of our employees who treasure the legacy and look forward to watching the new White Top enter service."

Col. Eric Ropella, PMA-274 presidential helicopter program manager said, "The program remains on budget and within our planned aircraft delivery schedule. The award of this last lot of VH-92A aircraft solidifies the importance of the Marine Corps no-fail mission especially as we move into the next phase of gov-

ernment testing this year."

The VH-92A program ensures longterm affordability and maintainability by utilizing the FAA certified Sikorsky S-92 aircraft which has industry leading reliability and availability. The S-92 aircraft is modified for the VH-92A mission based on government-defined requirements. The S-92 fleet surpassed 1.7 million flight hours in 2020 and averages 14,400 hours of safe flight per month.



## **US Air Force selects Northrop Grumman for** DevSecOps for future defence cyber mission

Through the BOA, Northrop Grum $oldsymbol{1}$  man will provide leading-edge DevSecOps and Lean-Agile services to ensure the US Air Force continues to operate, pivot and adapt faster than our adversaries

The US Air Force has signed a major contract with Northrop Grumman Corporation and other companies for task orders under the five year Software Development Security Operations (DevSec-Ops) Basic Ordering Agreement (BOA).

Under the BOA, Northrop Grumman will support the Air Force's LevelUP Code Works Platform One team's product development by providing full-stack DevSecOps engineers, cloud engineers, infrastructure engineers and other key personnel to include developers, trainers and consultants.

Dedra Bonner, program manager, Uni-



fied Platform system coordinator program, Northrop Grumman said, "We look forward to continuing our partnership with the US Air Force and delivering expanded DevSecOps tools, services and talent to support current and future Department of Defense cyber missions. Through the BOA, we'll provide leading-edge DevSecOps and Lean-Agile services to ensure the US

Air Force continues to operate, pivot and adapt faster than our adversaries."

LevelUp is the cyber software factory for the Air Force. With the help of industry partners, LevelUp is developing the next generation of advanced cyber tools for the Air Force and Department of Defense by leveraging military compliant Lean-Agile and DevSecOps methodologies.

Northrop Grumman is currently providing Lean-Agile and DevSecOps services to the US Air Force as the Unified Platform system coordinator, a contract the company was competitively awarded in 2018.

Work awarded under the BOA will be performed in San Antonio, Texas; Colorado Springs, Colorado; Ogden, Utah; and in other locations throughout the United States.

## Uzbekistan becomes first member to overhaul L-39 at Aero Vodochody

hese aircraft underwent general  $oldsymbol{1}$  overhaul and partial modernization of on-board equipment at the Aero Vodochody facility under strict secrecy

Aero Vodochody recently handed over the last six overhauled L-39 Albatros aircraft to Uzbek Air Force . These aircraft underwent general overhaul and partial modernization of on-board equipment at the Aero Vodochody facility under strict secrecy.

The partial modernization included replacement of the original Russian radio station together with the on-board telephone by a Czech-made radio station on all six aircraft. The radio navigation system was replaced by system made by Garmin company. The radio compass was also replaced by more modern technology, and the icing indicator was replaced by a new one made by Rosemount Aerospace.

Jan techr, vice president for military programs at Aero Vodochody said, "Aero is systematically strengthening and developing relationships with current



L-39 users. Uzbekistan is the first of a number of customers who have decided to overhaul and modernize their fleet of L-39s at Aero Vodochody.

The contract with Uzbekistan for overhauls of six L-39C aircraft was signed in September 2018 with the assistance of long-term strategic partner of Aero,

the OMNIPOL company. Aero produced 2,900 L-39 Albatros aircraft, hundreds of which are still flying around the world. L-39s are historically the most successful training jets. However, many countries also use them for other missions, such as reconnaissance missions or border protection.



## Seven Royal Thai Navy's Dornier 228 to undergo comprehensive modernization at RUAG International



Dronier 228 being dismantled on site in Thailand, and transported to the RUAG International facility in Oberpaffenhofen via an Antonov AN-124 transport aircraft

RUAG International recently signed a contract with Royal Thai Navy for the comprehensive modernization of the Dornier 228 aircraft. Initially only two aircraft will be taken in for modernization. The complete process includes transportation of the aircraft to and from Thailand, installation of glass cockpit modernization of avionics system and also providing training for the use of new equipment.

The aircraft will be dismantled on site in Thailand, and transported to the RUAG International facility in Oberpfaffenhofen via an Antonov AN-124 transport aircraft. A team of experts from RUAG International will then carry out a comprehensive inspection, remove the paint completely and eliminate any corrosion damage to the 25 year old aircraft structure.

The aircraft will then be equipped with glass cockpits and modern avionics systems (COM, NAV). The interior, cockpit and aircraft cabin will also be revamped. It will receive modern mission equipment that will enable tasks to be performed more effectively and efficiently. These include a 360° search radar, infrared

cameras as well as a mission management and data link for data transmission to ground stations and/or ships.

Apart from this, RUAG MRO International will also organize special training for crew members and technicians, partly in Germany and partly on site in Thailand.

Thomas Imke, Sales Manager at RUAG International said, "The Royal Thai Navy is dependent on the greatest possible availability of its aircraft to be able to continuously perform its sovereign tasks. We are therefore doing everything we can to keep aircraft downtime as short as possible. Especially under the current conditions brought about by the coronavirus pandemic, this is a challenge. Even sending a five-man team to Thailand for dismantling the aircraft involved considerable effort, given reduced flight connections and quarantine regulations. These are challenges that we are happy to take on because the satisfaction of our customers is our top priority."

The Thai Navy uses its Dornier 228 to monitor the exclusive economic zone called the "200-mile zone". The aircraft and their crews conduct ISR (intelligence, surveillance and reconnaissance) missions in the territorial waters of the Gulf of Thailand for the purpose of border surveillance to combat illegal trade and fishing.



### Lockheed Martin joins US Air Force' Platform One for new mission software developments



 ${
m P}$ latform One is a standardized and widely-mandated Department of Defense DevSecOps Infrastructure program used for future software development

The US Air Force have added Lockheed Martin to Platform One, an advanced software development program that aims to accelerate the development and deployment of new software applications for defense missions.

Platform One is a standardized and widely-mandated Department of Defense (DoD) DevSecOps Infrastructure program used for future software development. It enables faster software development and deployment with continuous updates to warfighters and will be used on programs like the Advanced Battle Management System (ABMS) and

The Air Force recently awarded Lockheed Martin a Basic Ordering Agreement (BOA) for Platform One Software DevSecOps Services to support DevSec-Ops engineering, software development, cybersecurity and operations, and IT support. The BOA deepens Lockheed Martin's ongoing collaboration with the

Platform One team, creating opportunities for Lockheed Martin to help build and support the Platform One solution and transition systems to Platform One.

"It's clear from their actions that Lockheed Martin is embracing DevSecOps and is committed to advancing Platform One capabilities," said Nic Chaillan, the Air Force's chief software officer. "Collaboration with industry is key to the success of Platform One and other advanced cloud and software efforts, and we look forward to working with the Defense Industrial Base to improve the way we deliver fast, secure and highquality code to warfighters."

The company is currently applying Platform One for DevSecOps within the Lockheed Martin Software Factory, a company-wide initiative that delivers the cloud-based infrastructure, tools and processes that are transforming the way software is created and delivered.

"Software is at the heart of every system we deliver, and we understand the DoD's urgent need for faster deliveries, more powerful mission capabilities, and open-source, open-architecture founda-

senior vice president of Enterprise Business Transformation at Lockheed Martin. "Platform One is a truly innovative approach that is propelling the DoD's DevSecOps evolution, and the collaboration with industry has helped us build infrastructure and capabilities that are well-aligned to the DoD's vision."

Platform One manages Air Force software factories and provides DevSecOps managed services with collaboration tools, cybersecurity tools, open source code and artifact repositories, development tools, and DevSecOps as a Service. The Platform One BOA can also be used for task orders for US Cyber Command, including Joint Cyber Warfighting Architecture DevSecOps development critical to multiple programs such as Joint Cyber Command and Control. Lockheed Martin is one of several companies to join Platform One as part of a collaborative, cross-industry effort.

Lockheed Martin is applying its DevSecOps expertise in every domain to address the Air Force's ABMS vision by connecting existing and future platforms, sensors and weapons. The company has actively contributed and participated in each ABMS On-Ramp exercise, which is advancing novel, open architecture multi-domain mission systems in support of Joint All-Domain Command and Control (JADC2).





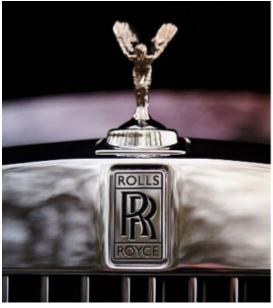
## Panos Kakollis appointed as the CFO and ED of Rolls Royce

Panos delivered significant transformational change at Deloitte, streamlining and simplifying the business and Rolls Royce looks forward to benefitting from his expertise and experience

Panos Kakaullis is appointed as the Chief Financial Officer and Executive Director of Rolls-Royce. He will be succeeding Stephen Daintith.

Panos wide range of multinational corporations combining audit, advisory and transaction services. Prior to joining Rolls Royce, Global Head of Audit and Assurance Practice at Deloitte. Post which he joined PA Consulting.

Warren East, CEO, said "We are delighted to announce the appointment of Panos as Chief Financial Officer who will join us in May this year. Panos delivered significant transformational change at Deloitte, streamlining and simplifying





the business and we look forward to benefitting from his expertise and experience as we deliver on our fundamental reorganization and secure a sustainable and prosperous future for Rolls-Royce."

Panos Kakoullis said "I am very excited to be joining Rolls-Royce at such a pivotal time. I have great admiration for Warren, the wider leadership team and the business as a whole and am proud to become part of the team."

Panos will take up his new role on 3 May 2021. Stephen will leave Rolls-Royce on 19 March 2021, shortly after the publication of the Group's full year 2020 results. To support the Group in the period of transition between Stephen Daintith and Panos Kakoullis, Ben Fidler will be appointed as Interim CFO, he is currently acting as Deputy CFO and joined the Executive Team effective 1 January 2021.

# Stuart Bailey appointed GM at Bombardier's Berlin Service Centre



Mewly integrated facility further expands Bombardier's worldwide customer support footprint and grows company's presence in Europe

Bombardier recently appointed Stuart Bailey as the General Manager at Berlin Service Centre. Prior to this, Stuart has worked in Lufthansa for over two decades. For his assignments, he has travelled all over Germany and far off to Malta and US. His extensive experience in line and base maintenance management will continue to create winning conditions to further grow and develop Bombardier services network in Europe.

Jean-Christophe Gallagher, Executive Vice President, Services and Support, and Corporate Strategy, Bombardier said, "We are thrilled to have Stuart join our team. Stuart will continue the important task of further growing business at the new Berlin Service Centre in addition to provid-

ing an unsurpassed customer experience. The newly integrated service center will allow Bombardier to further expand its worldwide customer support footprint in Europe, and we look forward to offering our customers the outstanding expertise and support only the OEM can provide."

The team at the Berlin Service Centre has a long history of providing Bombardier's business aircraft customers with a wide array of MRO services, all carried out with a high commitment to excellence. The addition of this facility to Bombardier's network of wholly owned service centers is a critical piece in the extensive expansion of the company's customer service network worldwide.

This new leadership appointment is the latest in a series of announcements highlighting enhancements to Bombardier's worldwide customer service network.





#### Etihad leads the path in COVID-19 vaccinations

All of Etihad's crew vaccinated with coronavirus vaccine to help curb COVID-19 spead

Etihad has achieved a milestone in vaccinating all of its crew members with COVID-19 vaccine and becoming the first airline in the world to achieve this. All of Etihad's operating pilots and cabin crew are vaccinated to help curb the spread of COVID-19 and give passengers peace of mind. Etihad was recently awarded Diamond status for ensuring highest standards of cleanliness and sanitization for its APEXHealthSafety.

Tony Douglas, Group Chief Executive Officer, Etihad Aviation Group, said, "We proactively made the vaccine available to all our employees to not only help combat the effects of COVID-19 but to make travellers feel confident and reassured the next time they fly with us. We are the only airline in the world to make COVID-19 testing mandatory for every passenger and crew member before every flight and now, we're the first airline in the world with 100% vaccinated crew on board."

Etihad formally launched the 'Protected Together' employee vaccination initiative last month to help staff take proactive steps to protect themselves against COVID-19.

"I chose very early on to be vaccinated to demonstrate my own support of the national vaccination programme and to encourage everyone at Etihad who was



eligible for the vaccine, to receive it as soon as possible. I would like to thank the entire Etihad family for everything they have done to help us reach this milestone – I am truly humbled." Tony added.

Right from the start Etihad took significant steps to ensure that their employees receive the COVID-19 vaccine. They were one of the first employers to secure place for their frontline staff including pilots and cabin crew in Abu Dhabi's vaccination program.

Dr. Nadia Bastaki, Vice President Medical Services and CSR, Etihad Aviation Group, said, "Following the national vaccination programme, we worked tirelessly to become an approved COVID-19 vaccination clinic to support our staff, and their dependants, be able to easily access the vaccine. Since December 2020, we have been offering in-house vaccination appointments to our employees and their loved ones to ensure we are focused on our employee's wellbeing."

Following the UAE Government's target to vaccinate half of the UAE population by the end of March 2021, Etihad is ahead of schedule with over 75 per cent of its entire workforce already having received at least one dose of the vaccine. With even more activity still planned as part of the Protected Together initiative, this figure will continue to grow as more employees step forward and choose to vaccinate.

## CAE joins hands with PYURE to assemble air sanitizer units to fight COVID-19 pandemic

PYURE demonstrated in an independent US certified scientific lab that its FDA-registered product significantly destroys the COVID-19 virus in the air and on surfaces

CAE and PYURE have signed a contract to assemble air sanitizers using PYURE's technology and plans to produce 55,000 units during the first year. The technique is found to have a significant impact in destroying the COVID-19 virus in air and on surfaces. CAE further work plans to retrofit its facilities and simulators with this technology.

Marc Parent, President and CEO of CAE

said, "The contract with PYURE will allow us to maintain manufacturing jobs in Montreal while continuing to play a role in the fight against the pandemic. We obtained this contract mainly because of the expertise we have gained developing the CAE Airı ventilators as well as the ISO 13485:2016 certification for medical device design, manufacturing and distribution obtained last month."

PYURE Chief Executive Officer Jean-François Huc said, "Unlike conventional air purifiers, our technology does not limit purification to the air that is pulled through the unit. PYURE's innovative, patented technology replicates the way sunlight sanitizes the outdoor environment by safely generating and diffusing hydroxyls and organic oxidants indoors."

All PYURE air sanitization products and solutions are powered by the same hydroxyl and organic oxidant generating technology. PYURE'S MDU/Rx product is registered with the FDA as a class II medical device. A US Study shows that on surfaces the PYURE MDU/Rx sanitizer reduced the virus by 99% in one hour and it was no longer detected on surfaces after three hours.



## A new favorite with private and public operators-'PC-24' with 10-seat configuration

All seats are forward-facing and internal cargo space of more than 50 cubic feet remains accessible in flight

The Pilatus 24 or the PC-24, world first and only super versatile jet continues to surprise its customers by proving to be an excellent fit for widest missions. The first PC-24 with a 10-seat configuration was recently delivered to a customer in western US. The best part is that each seat is installed with a quick-release mechanism allowing easy cabin reconfiguration for all transportation requirements.

Feeling proud of the delivery Ignaz Gretener, VP General Aviation of Pilatus said, "The PC-24 is the only aircraft in its category to offer this level of high-capacity interior for ten passengers. All seats are forward-facing and internal cargo space of more than 50 cubic feet (1.4 cubic metres) remains accessible in flight. We expect this configuration will prove very popular with both public and private operators requiring a cost-effective solution for frequent transportation of passengers as an alternative to sending them on the airlines."

The PC-24's payload capacity of 1,134 kilogrammes and standard large cargo door enable operators to load large, bulky items that no other business jet is capable of carrying with such flexibility. The cabin features a private lavatory

which can be serviced from the exterior. Unlike many other light and midsize jets in this category, the lavatory seat is not used as a passenger seat: the loss of comfort for the passenger is simply too great.

Seat pitch in the commuter configuration varies from 34 (86) to 40 inches (102 centimetres). Each seat features a side storage compartment and cup holder as well as four 115-volt power outlets to enhance in-flight productivity. The PC-24's entirely flat floor also adds to comfort on long trips.

Thus it is a safe, efficient, private, costeffective corporate travel solution for company employees.

## 'CJ4 Gen2' largest Citation in light jet segment with a host of features

Designed and manufactured by Textron, the CJ4 Gen2 has seating for up to ten passengers and includes a notable 1,040-pound baggage capacity

Textron Aviation recently added the largest Citation in light jet segment — The Citation CJ4 Gen2. It offers a host of features that elevate ramp presence and in-flight comfort, including a new stair and handrail, premium seating options and enhanced ambiance lighting throughout. The Citation CJ4 Gen2 achieved FAA type certification in 2010 and remains a 525 C type aircraft and has already received current interior certification for the CJ4 Gen2.

Christi Tannahill, senior vice president, Customer Experience, "With the CJ4 Gen2, we focused on a design that enhances passenger comfort with an elevated cabin to match the performance capabilities already trusted by Citation CJ4 owners. Developments in technology have allowed us to introduce new design elements. A first for Citation light jets are the CoolView Skylights and a vanity option, which give our customers the atmosphere of a large aircraft with light jet performance capabilities."

Designed and manufactured by Textron, the CJ4 Gen2 has seating for up to ten passengers and includes a notable

1,040-pound baggage capacity. It allows customers to go further with the light jet segment's leading range-topayload ratio and a best-in-class IFR range of 1,926 nautical miles

(3,567 km) with a maximum cruise speed of 451 knots. The single-pilot certified jet combines superior speed, range and operating economics when compared with larger aircraft, making it the ideal platform for owner/operators or corporate missions.

The aircraft has redesigned stairs with a lower point of entry, handrail support and a customizable logo light. The refreshment center and galley area are comprised of improved storage options and an optional high-power outlet accompanied by a pull-out surface for a coffee maker. Additionally, extendable stone countertops are also available.

In the jet's main cabin area, side-facing seat selections include a folding single seat, a fixed two-place couch and a folding two-place couch which provide additional storage capacity to secure belongings in flight.



Along with the new cabin seating options, there is enhanced lighting in the pockets, on the sidewall and floor, and in the cupholders. This is the first Citation aircraft equipped with CoolView lavatory skylights to provide more natural lighting throughout the lavatory and aft cabin area. Operators can choose the jet's Premier Collection design option, which also offers a completely new lavatory vanity and sink.

The aircraft offers an upgraded wireless cabin management system consisting of an onboard media server with the ability to stream preloaded audio and video files, access XM Satellite Radio and view moving maps. As part of the new system, passengers can also wirelessly control cabin lighting, window shades and temperature from their own mobile devices while productivity is powered by the USB charging ports at each cabin seat.



## Magnetic MRO, bringing digitalization into stock taking forum

Normal stock taking involved visit to hangar and carry out the inventory check, but with COVID-19 pandemic and imposing lockdowns Magnetic MRO developed the new digital audit process

Magnetic MRO in collaboration with auditors from PwC and Guangzhou Hangxin Aviation Technology has developed an unconventional stock-taking method. Accordingly to this new remote auditing process, the teams of auditors sample certain inventory articles and the whole process is conducted and recorded for future references via Microsoft Teams. The entire process takes about 4 hours. The challenge in this process is to meet the auditor's expectations and gain efficiency in the process by combining two separate stock-taking into one as the auditors are in different time zones.

Jekaterina Piskunova, Business Controller at Magnetic MRO said, "Online stock-taking is, indeed, a unique process, and for us all it has been a challenge and also the opportunity to perform it in the current setting and gain this experience. I am glad our partners are open-minded and also willing to adapt processes to the situation – together, we can navigate any challenges."



Commenting on this unique stock taking method, Iiris Embrich, PwC Senior Associate said, "The stock-count was well organized, and the requirements of both auditors were taken into account. Hopefully, we don't have to get used to the new reality, but we assured that good cooperation would help us adapt to any situation."

Fiona Huang, Investment Manager from Guangzhou Hangxin Aviation Technology Co., LTD, added, "The process is efficient and remarkable: through the virtual stocktaking, a new creative form, operation and process under the pandemic situation can

still run its course."

As the COVID 19 pandemic hit and global travel restrictions and lockdowns were imposed, hangar visits were suspended leaving an impact on multiple business units and processes from maintenance to financial operations and stockings. To avoid this situation many MRO's across the world have come up with newer and innovative solutions to increase work efficiency. Magnetic MRO's digital audit process is one such process of adapting to the new normal.

# Bell's Autonomous UAV successfully delivered a package paving way for commercial operations

Bell is proud to play a role in the first North Texas UAS package delivery, and this demonstration showcases the future application of the APT 70 as a logistics carrier

In a significant milestone towards commercial capability of unmanned aircraft system, Hillwood and Bell Textron successfully demonstrated a point-to-point UAV package delivery in North Texas. Bell's Autonomous Pod Transport flew across the Alliance Texas Mobility Innovation Zone and delivered a package to landing area.

Ross Perot, Jr., chairman of Hillwood said, "Together, we are carving a path forward for future commercial operations to solve the supply chain challenges our world currently faces. This moves the needle closer to connecting logistics

operations directly to consumers."

The APT reached a maximum altitude of 300 feet above ground level. The APT is the electric vertical takeoff and landing (eVTOL) family of vehicles Bell is developing and can reach speeds of more than 100 miles per hour and has a baseline payload capability of 70 pounds, recently demonstrating carrying payloads over 100 pounds. Bell's APT systems allow for flexible mission capabilities while keeping operations simple, efficient and fast. It is capable of twice the speed and range of a conventional multirotor, and the vehicle is designed for rapid deployment, quick reconfiguration, and nimble battery swap and recharge.

"Bell is proud to play a role in the first North Texas UAS package delivery,

and this demonstration showcases the future application of the APT 70 as a logistics carrier," said Mitch Snyder, president and CEO of Bell. "Testing at the MIZ showcases how Bell's autonomous vehicles could seamlessly integrate into logistics operations and unlock new opportunities for businesses."

Data collected during the demonstration will be used to support future standards development and Federal Aviation Administration (FAA) certification guidelines.

Bell and Hillwood have joined forces with the Tarrant Regional Transportation Coalition (TRTC), a public-private partnership focused on advancing mobility innovation within the western portion of North Texas.



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## 2021

03-05 JUN

France Air Expo

Lyon Bron Airport – LFLY

08-10 JUN

**Cabin Ops Safety Conference** 

The Parisian Macao, Macao, SAR, China

08-10 JUN

Safety and Flight Ops Conference

The Parisian Macao, Macao, SAR, China

22-23 JUN

**Aviation Festival Asia 2020** 

Suntec Convention Centre, Singapore

15-16 SEP

16th Annual MRO Russia & CIS 2021 conference and exhibition

Moscow World Trade Center

12-14 OCT

World Cargo Symposium Hilton Bomonti, Istanbul, Turkey

15-18 NOV

33rd IATA Ground Handling Conference

Prague, Czech Republic

15-18 NOV

Global Airport & Passenger Symposium Prague, Czech Republic

**Contact Us For Advertisement For Editorial** 

info@mrobusinesstoday.com

nancymatthews@ mrobusinesstoday.com

editorial@ mrobusinesstoday.com