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This photo of Airlink's Embraer E195E was taken by South African photographer Pieter Cronje during the Lowveld Airshow held at the Nelspruit airfield earlier this year. Cronje is an accredited World Airnews photographer. His article and photos will feature in our African Airlines Directory next month. Make sure you get a copy of this one!!
Cover photo by: Mike Wright.

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AVIATION NEEDS A MOONSHOT

By Heidi Gibson

During the recent International Air Transport Association World Air Transport Summit in Istanbul, Akbar Al Baker, CEO of Qatar Airways, described the airline industry's emissions goals as "a PR exercise," and stated that the industry will miss its carbon-reduction targets in 2030 and net-zero goals in 2050.

IATA director general, Willie Walsh, refused to accept this characterisation – but agreeing that reaching the targets will not be easy or cheap.

It's time to put it out there – while sales boom at the Paris Air show and optimisim is in the air – the likelihood of achieving these targets are very slim. Consider that the aircraft manufactured today – are not powered by 100% sustainable aviation fuel (SAF), hydrogen or all-electric engines – and they are going to be in the air for the next 20 years or more. (read more about the Paris Air show on pages 17- 19).

Many African countries can't even manufacture their own Jet fuel. There are no Sustainable Aviation Fuel producers or operations on the continent and at present it costs European airlines five times more than Jet 1A fuel. We see and read lots of PR stuff about using 100% SAF flights but it's the exception not the norm.

And all the while the Earth is getting hotter and the climates are changing. I could feel it in Nairobi, Kenya – the location of the AviaDev Africa conference – where it was supposed to be 'winter'. The Horn of Africa drought hit the countries of Somalia, Ethiopia, and Kenya where the rainy season last year was recorded to be the driest in over 40 years. An estimated 43,000 in Somalia dying as a result last year. (turn to page 14 to read more)

Blunt hard-hitting measures such as carbon taxes, and complicated emissions trading schemes are not going to work. We need to make a giant leap forward – just like we did when we put a man on the moon.

And unrealistic targets need to be thrown out. Each small achievement in getting to Net Zero needs to be realistic and achievable.

What is needed is a 'moonshot' – a giant leap forward!

Turning away from the doom and gloom – it seems airlines are finally set to make a profit – for the first time since 2019. IATA predicts a net profit of $4.7 billion and a 0.6% net profit margin on the table.

Accordingly there is a 20% increase in deliveries of large aircraft compared to last year's figures and production rates will match this increase by the end of FY 2023, according to Fitch Ratings figures.

Meanwhile this month we have the monumental Royal International Air Tatoo coming up where spectators can look to the skies with a host of aircraft on display. A few of these will be the USAF's newest tanker the Boeing KC-46A Pegasus, the U-2 Dragon Lady and the special WC-130J Hercules Weatherbird.

And then later across the seas in the USA moon missions, unique aircraft and daily forums will form part of EAA AirVenture Oshkosh 2023. It's a busy time for aviation lovers. Enjoy the read.

MORE THAN A SERVER, MORE THAN A ROUTER

***World Airnews* editor Heidi Gibson got a chance to talk to the CEO of a company based in the Netherlands that has designed a trail-blazing, innovative and cost-effective solution that will allow passengers free onboard connectivity. Meet AirFi Aero's Job Heimerikx.**

WAN: I am excited about what I have read so far about AirFi Leo. But before we get into that please tell us a little bit about the AirFi company. When was it formed? Where are you based? And what services or solutions do you provide? What has been your road to success?

JH: With offices around the world, AirFi Aero is a disrupter in the inflight entertainment world – now a partner of choice for more than 70 airlines and rail operators.

Established in 2011 by a team of industry specialists who dreamed of making cabin crews' lives easier and the passenger experience more fun. We knew would be possible with economical and easy-to-deploy digital solutions for airlines and rail operators. In 2012, AirFi launched its proprietary Connected Crew mPoS (mobile point-of-sale) platform and we the company hasn't looked back since.

In 2014, the revolutionary AirFi box was brought to market as the first portable streaming solution for the air and rail sectors. Fully compatible with our Connected Crew solution and costing a fraction of what traditional in-flight entertainment (IFE) did, the AirFi box (now in its third generation) disrupted the industry and was soon being imitated by numerous competitors.

Throughout the years, AirFi has managed to stay several steps ahead of the pack with constant innovation (like in-seat ordering and LEO low-bandwidth connectivity) and by always putting customers first.

In 2021, AirFi celebrated 10 years in business. We now have customers on five continents and regional offices around the world to support them in every way.

AirFi Aero CEO Job Heimerikx

Easyjet onboard - theres a QR code on the back of each seat that people can scan to access the platform.

AirFi provides three core solutions

1. A flexible, retail-centric alternative to costly embedded inflight entertainment
2. Mobile point of sale (mPOS) and Connected Crew solutions
3. LEO: a low-cost, low-bandwidth connectivity solution ideal for data packet-based messaging

WAN: How would you describe AirFi LEO? What does it do?

JH: AirFi LEO is the world's first lightweight, low-cost inflight connectivity solution for the global commercial aviation sector that can be delivered without major aircraft modification.

Our innovative and patented antenna mounts in a window frame (overnight), offering affordable IP connectivity and associated operational and passenger experience benefits to airlines everywhere.

At a fraction of the cost of other satcom solutions, LEO provides a global low-bandwidth connection for aircraft with the exceptional reliability of the Iridium Certus low-earth orbit satellite network. This level of bandwidth, whilst not enough for data-heavy applications like streaming video, voice calls, or web browsing, is more than enough to allow simultaneous use cases like live credit card validation (for inflight retailing), air-to-ground text messaging (such as WhatsApp and other messenger platforms), and ACARS over IP.

ACARS over IP allows for flight deck communication with a 25x cost savings over traditional HF or VHF radio networks.

At the same time, integration with crew apps can also deliver real-time weather updates for pilots, catering and customer service improvements for cabin crew, and links to maintenance operations to speed repairs and reduce turn times. Future IoT offerings can be easily integrated with the AirFi LEO network, taking advantage of the low-cost hardware and satellite links.

In short, AirFi LEO is democratising inflight connectivity. Now any airline can create a sustainable business case for connecting their fleet.

The backbone of the AirFi solution is the AirFi Box. The light and compact AirFi Box is placed in the stowage bins of any aircraft to create a powerful Wi-Fi network onboard that passengers connect to using their own devices.

AirFi works from an API-driven, cloud-based architecture that makes partner integration and content updates easy.

All of AirFi's solutions are supported by AirFi's proprietary data analytics platform and dashboard, granting insight into system performance and customer behaviour.

AirFi's portable wireless inflight entertainment (moving map, AR/VR experiences, films, TV, games, music, magazines, newspapers, and more) and Connected Crew solution (mPOS, passenger information, communications, reporting) are fully integrated, depend upon minimal or no up-front investment, require no aircraft downtime and offer endless customisation and monetisation opportunities around content, advertising, and retailing onboard.

WAN: After listening to the podcast on your website it seems this is a partnership between you, SKYTRAC, and Iridium. What brought the three entities together and where did the inspiration come from to provide this solution?

JB: We had developed another similar product that was less sophisticated and we were very keen on improving that. The initial product used Data Burst, but we wanted to move it over to a more advanced platform to address some of the initial pain points. We did our research and found that as a reseller of Iridium, SKYTRAC could solve this problem. Iridium was happy to join up with us because we represent a brand-new market for them. It takes three to tango in this case because you need the AirFi box onboard the aircraft, the perfect antenna, and the perfect means of communication between the antenna and the satellite.

WAN: Let's deal with the connectivity part of this equation. How is AirFi LEO different from other providers? I understand that the LEO stands for Lower Earth Orbit and refers to specific satellites. Why is the LEO system better than the other Ka and Ku band – service providers?

JH: It's widely accepted that low-earth orbit (LEO) satellite networks will be the future of inflight connectivity. One need only look at how much money huge corporations like OneWeb and Starlink are investing in this space to see it!

Large investment in LEO networks, combined with their inherent low latency and global coverage all point to the direction of more LEO for aviation, and we agree that low-earth-orbit (LEO) constellations will be the way forward.

What we also know is that there is a huge market for alternative connectivity solutions which can deliver the basic needs of the passenger (like messaging and email), and also bring operational benefits for the airline by leveraging a lighter overall kit that incurs less upfront cost or hassle. This demand is here now, and we think it will grow exponentially as case studies from the early movers emerge to demonstrate the value of low-bandwidth solutions... especially on LCC and regional aircraft.

WAN: Now let's move on to the installation – as this provides airlines with 90% of the functionality at 10% of the cost.

JB: For 90% of airlines, the real business case for connectivity can be found in simple operational functions like payment validation, ACARS over IP, and crew communication.

Not only this, but many indicators show passengers are still far more concerned with things like low ticket prices and legroom than they are with streaming Netflix or other bandwidth-heavy IFC applications onboard. Many are very pleased (if not thrilled) if they can simply send a quick WhatsApp message to loved ones on the ground for no cost.

Our solution costs about 10% of the key Ka- or Ku-band connectivity solutions on the market today.

Low-bandwidth IFC solutions that are inexpensive for the airline, easy to install, and pay for themselves in operational benefits are not just a trend. This is a practical and necessary innovation that our industry is more than ready to embrace.

WAN: What about the time needed to install the antennae and the box? I heard you say that for MRO operators it will not take a long time at all. How long will it take?

JB: It's an overnight installation and we can do it on the tarmac. We don't need to do it in the hangar.

WAN: Now, can we move to the provision of ancillary revenue streams and the 'Mall in the Sky' offering? Will passengers be able to browse luxury or other types of goods, effect a credit card payment and have the item delivered to the location of their choice? How is this different from other currently available options?

JB: Our LEO solution alone will not create a Mall in the Sky offering, but it is a piece of the puzzle! It's actually like the cherry on top for the Mall in the Sky.
Mall in the Sky is the outcome of AirFi's three core solutions combined and then infused with an airline's creativity.

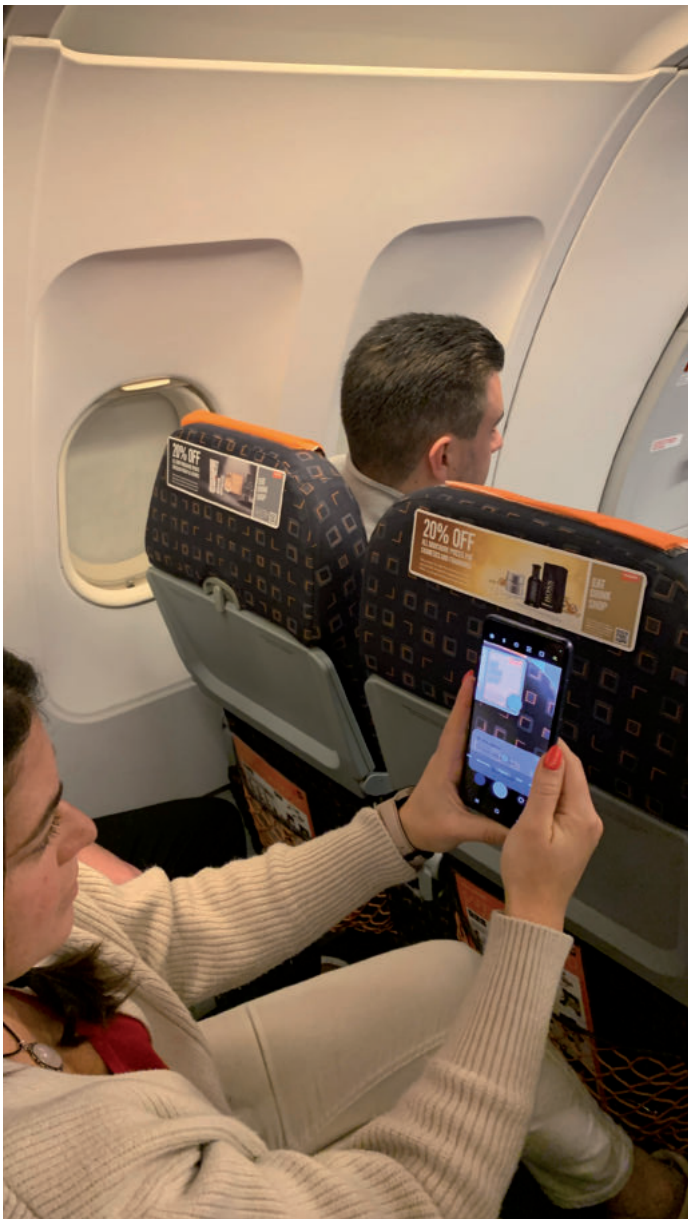
The solutions are:

- AirFi's market-leading portable IFE content streaming technology – via the famous AirFi Box
- Connected Crew solution (featuring in-seat ordering), our PCI-certified payment solution
- And of course the overnight installed LEO connectivity solution.

Each solution can stand alone, but when combined they are a powerful passenger experience and revenue tool for airlines. All three are designed to be low-cap-ex and very quick and easy to deploy.

As well, the open architecture of our backend system makes full customisation and integration with any third-party partners incredibly easy. There is no limit to the potential 'products' that an airline could offer through their Mall in the Sky.

WAN: Is the AirFi solution compatible with all aircraft types? Which airlines have adopted and embraced your solution?



The AirFi Leo – the world's first light-weight, low-cost inflight connectivity solution.

JB: Yes, AirFi LEO is compatible with all aircraft types, as long as the antenna fits in the windowpane. Multiple airlines have signed up, but we'll give them the honour of announcing it when they are ready.

WAN: World Airnews magazine primarily circulates throughout Africa. Do you have any plans to bring this product to market to African Airline operators?

JB: Yes, we have. The Iridium solution is perfect for the African market considering the positioning of the GEO, LEO, and air-to-ground network operators. Furthermore, the hardware is so lightweight that from a cost perspective, even the smallest operator in Africa could use our product to boost their passenger experience.

Many people from the West see Africa as less developed, but we know better. Africa is pretty much at the front of the pack from a mobile perspective, especially when it comes to micropayment solutions, which AirFi LEO can support onboard aircraft. I love the continent and I travel to Africa a lot.

WAN: In the podcast, it was stated that this solution would be ideal for Low-Cost Carriers – who mostly lease their fleet. Would you agree with this and why? Do you have an example of an airline that has taken up this offering?

JB: It's very simple. If you can operate a connectivity solution at around (US) $30,000 per aircraft per year, you have an extremely low-cost solution. Then, there's the fact that you also have no drag and no weight penalty, which further reduces costs because airlines will save on fuel.

It's a welcome by-product that LCCs will be greener with this solution than their legacy counterparts. Finally, AirFi LEO enables carriers to maintain a captive environment, which is better for ancillary sales. They don't want to open up the internet for passengers to go and shop elsewhere!

The AirFi box streaming solution and connected crew elements of our product offering are already a big hit with both aircraft lessors and airlines that lease aircraft to supplement their fleets during busy months. We believe that the LEO solution is ideal for leased aircraft because of its minimally invasive nature. It's incredibly easy to reverse the installation when the plane needs to go back to the lessor, saving airlines a lot of money.

The backbone of the AirFi solution is the AirFi Box.

WAN: Would the age of the aircraft present any problems? Can this system or solution also operate in older aircraft? Many of the carriers in Africa make use of older models

JB: The age of an aircraft does not present a problem. It can always operate on a Flight Level 100 aircraft. However, the aircraft does have to be HRIF compliant. It can be that additional TPED testing is required. The portability of our solution and the fact that you can take it out quite easily, both the receiver as well as the boxes, an aircraft that goes out of surface let's say within the next two years can still easily be equipped with our solution as the entire kit can then be moved to another aircraft.

WAN: At the end of the podcast, Job Heimerikx stated that there are portable test kits available to interested airlines. Can you explain this further? Who do they need to contact or how can this be arranged?

JB: We do proof of product testing for our customers. The only thing we require is interaction with engineering, maintenance, and safety and then we can bring a completely battery-operated kit to the aircraft. We place the antennas against the window during a flight and activate the system without being connected to aircraft power. That enables us to very quickly evidence the workings of the product and have the airline decide whether it fits their requirements or not. They can always contact sales@airfi.aero if they want to have a test arranged.

WAN: And lastly, is this a first for commercial aviation? If so where are going in the future? What is next?

JB: Yes, this is a first for commercial aviation because none of the other vendors in the market have ever focused on bringing an IP connection to the window. Others claim to achieve similar results. The USP of AirFi LEO is that AirFi, together with SKYTRAC and Iridium, has a fully certified solution covering all the different elements of the product.

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AIRBUS CABIN OF THE FUTURE

Airbus has launched a total rethink of cabin interiors to save weight and ensure 100 percent recyclable products.

Dubbed Airspace Cabin Vison 2035+ , Airbus reached out to 10 airlines, including Air New Zealand, Delta Air Lines and Lufthansa, as well as eight technology suppliers, to evolve the futuristic cabins which it hopes to incorporate into its hydrogen-powered concept aircraft by the middle of the next decade.

Airbus also sought input from detailed passenger surveys to define the main guidelines of cabin product development. It said the aircraft cabin contributes 10-20 percent of the overall aircraft environmental impact, while in parallel, passenger research shows that 80 percent of companies incorporate sustainable travel policies and that 40 percent of travellers are willing to pay for CO^2-neutral tickets.

The Airspace Cabin Vision 2035+ is all about re-imagining the future travel experience by prioritising sustainability while maintaining superior levels of comfort.

Airbus said this can be achieved via a paradigm shift leveraging digital processes and tools, bionic structures and a circular design philosophy.

This first phase of the project is called "Transparency" and by 2025 Airbus said that it will provide full transparency on the environmental impact of cabin parts and operations.

It plans to offer CO^2 emission cabin options and more efficient cabin operations to airlines while establishing a framework for cabin end-of-life management and first solutions.

Decarbonisation is the second phase and by 2030 Airbus said it will be introducing new cabin interior solutions and materials with low CO^2 impact.

It plans to reduce significantly cabin products' waste during production and landfill at end-of-use and establish new end-of-life management approaches.

By 2035 Airbus will have introduced what it calls "Circularity" and integrate the next generation cabin in a hydrogen-powered aircraft and support the reduction of emissions intensity for the existing global aircraft fleet. It plans zero landfill and incineration of cabin materials at end-of-use, except if required by regulation.

Airbus plans the establishment of what it terms "a circular cabin" based on the elimination of waste and pollution as well as the circulation of products and materials.

Airbus said that it has a business class seat concept that gains 10 percent more room while reducing weight saving by 30 percent.

Some of the concepts include using waste hand washing water to flush toilets, passengers on long haul flights would pre-order their meals to cut wasteful duplication of meals, while short-haul passengers would simply pick up a snack box at the gate lounge.

The catering changes could reduce waste by 15 percent said Airbus.

Airbus is working on three hydrogen concept aircraft that were first revealed in 2020.

All of these concepts rely on hydrogen as a primary power source - an option which Airbus believes holds exceptional promise as clean aviation fuel and is likely to be a solution for aerospace and many other industries to meet their climate-neutral targets.

The three concepts (above) - all codenamed "ZEROe" - for a first climate-neutral zero-emission commercial aircraft include:

- A 120-220 seat turbofan design capable of operating trans-continentally and powered by a modified gas-turbine engine running on hydrogen, rather than jet fuel.
- A 100-seat turboprop design using a turboprop engine and also powered by hydrogen combustion in modified gas-turbine engines, which would be capable of travelling up to 1600km.
- A 200-seat "blended-wing body" (below) design in which the wings merge with the main body of the aircraft with a range similar to that of the turbofan concept. The exceptionally wide fuselage opens up multiple options for hydrogen storage and distribution and for cabin layout.

Meanwhile seat designing and manufacturing company Recaro introduced a new seating solution for Airbus aircraft, nullifying the need for extra legroom seats while still meeting EASA and FAA's 13-inch emergency exit passageway requirement.

Christened X-Tend seat, this product can boost cabin efficiency by enabling more seats to be retrofitted into aircraft. The Airbus A320, for example, can potentially increase its cabin capacity from 190 to 194 passengers.

The seat features a shorter seat pan and a flip-up extension that can be upright when passengers sit, thus configured like a standard seat.

However, in the event of an emergency evacuation, the extension can be flipped down to enable the passageway to the exit to maintain the mandatory 13-inch space.

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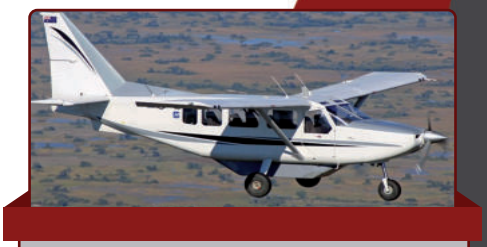

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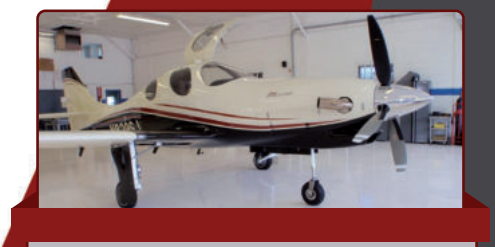

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The Ato Girma Wake Lifetime Achievement award was presented in absentia to Airlink CEO Roger Foster. Public relations company Plane Talking managing director Linden Birns (middle) – who has Airlink as a client - accepted it on his behalf. With him are (from left) CEO AviaDev Ltd Jon Howell, former chairman of the board of Ethiopian Airlines Ato Girma Wake, AFCAC secretary general Adefunke Adeyemi and CEO and founder of Astral Aviation Sanjeev Gadhia.

AVIADEV AFRICA 2023

By Heidi Gibson

With more than 350 people attending the business-to-business AviaDev Africa conference in Nairobi, Kenya this event – was a lot larger than last year's held in Cape Town, South Africa.

And three keywords - engage, energise and elevate – were used to unpin the event that saw 41 airlines represented, 75% of the delegates from Africa across 46 countries.

The event aims at bringing airports, airlines, tourism authorities, governments and industry suppliers together to meet, learn from industry peers and make connections.

Breaking from the past, organisers added an AviaDev Real Estate component to the programme targeting owners and operators of African airports and putting them together with those in the finance, and related skills sector. The idea being to assist airports to maximise the surrounding land to create revenue potential.

The first day was dedicated to AviaDev Real Estate and attendees listened to several project showcases of African airports – among them Zambia, Zimbabwe, Guinea, and Lanseria and Dube Trade in South Africa – about their plans for future development.

At the same time, there was a community outreach programme that saw a group of aviation experts, media and other related sectors visit the East African School of Aviation just near the Jomo Kenyatta airport.

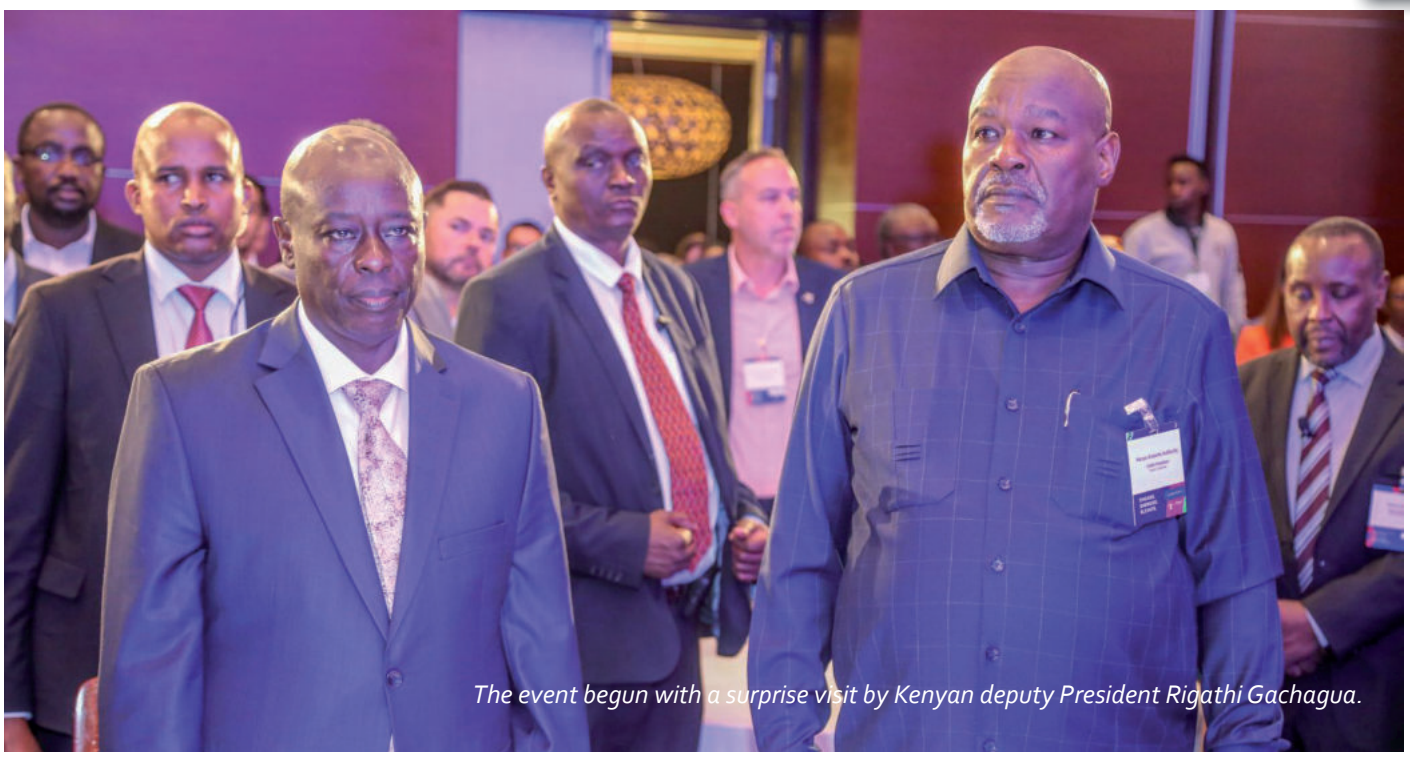
This is a training school under the directorate of the Kenya Civil Aviation Authority which sits under the country's Ministry of Roads and Transport. The school offers a variety of aviation, technical and management programmes. It was established in 1954.

At this event, pupils from the school and others that have since graduated and moved on – children or youth aged between five to 25 years – all of whom are members of aviation-related social clubs got the opportunity to interact with the attending aviation professionals and discuss relevant topics.

The outreach programme and the gala dinner were sponsored by Brazilian manufacturer Embraer while the networking reception gala was – almost ironically sponsored by South African Tourism – who were scarce on the ground.

Day two and the conference kicked off with an unexpected – last-minute - visit by Kenyan deputy President Rigathi Gachagua. He encouraged those attending to invest in the country and assured them of a safe country with a high level of security and a hard-working labour force. Cabinet Secretary of Tourism and Wildlife Peninah Malonza shared the platform with him.

Then it was up to Daniel Silke director of Political Futures Consulting, who presented the conference with an in-depth



The event begun with a surprise visit by Kenyan deputy President Rigathi Gachagua.

macro-economic presentation. Silke painted a broad picture of the global forces at play, including the effect of inflation, interest rate rises and fragmented political power struggles.

He mentioned the potential effects of climate change amongst others and it's effect on Gross Domestic Profit.

Talking about travel and the latent or "revenge" demand by travellers, he warned that the year is going to be softer on all fronts. This will include global growth, the arrival of the downward trend of interest rates and others.

He said India is expected will see the highest growth rates, while the USA may just skirt a recession if indications over the next six months are correct.

As far as Africa is concerned, he said the picture is mixed like that of the rest of the world. "With slower growth, there will be slower recovery especially that of inbound tourism. What makes me optimistic though is next year when the IMF has predicted GDP levels to rise to 4.2%.

He told delegates that on a regional level, West Africa's Kenya is growing at 5% - well above the levels of other African countries. South Africa's growth outlook is on the other hand very weak with levels of 0.5%," he said.

While it's a tough time for African governments, he said, there are positives as the average age of the African population is young sitting at 18 years, compared to those in Europe where it is 41 years and in Asia where it is 31 years.

"A young population offers innovation but also risks as young people can become dissatisfied and demand more from governments," he said.

After this, the panel discussions kicked off. Topics such as 'Profit before planet', 'Strategising for success: how OEMS have helped airlines adapt their strategies for new routes' and 'How technology is driving efficiency' were tackled.

Representing all the different ages of aviation clubs at the East African School of Aviation.

The enigmatic aviation expert Sean Mendes moderated a panel that tackled the topic 'Navigating Financing Challenges for Re-fleeting decisions and African Airline Start-ups in a Post-Covid World: Exploring Opportunities and Strategies'

The programme also featured a hard talk about the status of the Single African Air Transport Market (SAATM) as well as a 'Navigating financial challenges' and 'Building a strong cargo system'.

Ending on a high note was the presentation of the Ato Girma Wake Lifetime Achievement Award. This year it went in absentia to Airlink CEO Roger Foster who was not able to attend. Public relations company Plane Talking managing director Linden Birns – who has Airlink as a client - accepted the award on Foster's behalf.

In closing AviaDev signed an MoU or memorandum of understanding with the African Civil Aviation Commission (AFCAC).

AFCAC and AviaDev have a shared objective of promoting a safe, secure, affordable, efficient, and environmentally friendly operating environment in Africa. Under the MoU, the Parties will engage in various co-operative activities, including information sharing, events attendance, podcast participation and collaboration at relevant industry events.

Look out because next year AviaDev will take place in Windhoek, Namibia hosted by the Namibian Airports Company.

The younger children got to make and fly their own paper planes at the community outreach programme

Ch-aviation journalist Hilka Birns moderated a panel discussion on the topic "Profit versus Planet".

IT'S BACK - THE PARIS AIR SHOW 2023

The largest single purchase order in the history of commercial aviation for Airbus, a visit from the French president, Emmanuel Macron, and overhead an impressive flight display.

What more can be said to describe the opening of the Paris Air Show 2023 – it's been four long years and the highlight on the aviation calendar did not disappoint.

This article attempts to capture a selection of the headlines from this iconic show and is by no means an all-encompassing definitive feature. There was a lot more happening that readers must look for online.

So, Le Bourget Exhibition Centre in Paris was once again the centre of the world of all things aviation. Airbus took the headlines also immediately with the largest order ever that included 500 A320s from the IndiGo Airline with other smaller orders such as 30 new A320neo Family aircraft from Flynas, the Saudi air carrier and – for Africa, three A350 aircraft for Air Mauritius that will assist in expanding its network in Europe and South Asia and bringing its total A350 fleet to seven.

The orders continued on day two with Air India finalising an agreement with Boeing for up to 290 new jets and expanded services. The order included 190 737 MAXs, 20 787 Dreamliners and 10 777X jets with options for 50 737 MAXs and 20 787 Dreamliners and is Boeing's largest order in South Asia and highlights its 90-year partnership with the airline.

Air India also firmed up its order for 250 Airbus aircraft and selected an Airbus maintenance and digital package to power the airline's transformation and growth strategy. This aircraft order included 140 A320neos and 70 A321neo single-aisle aircraft as well as 34 A350-1000 and six A350-900 wide-body jets.

Mumbai-based Akasa Air ordered an additional four Boeing 737-8s in an attempt to ramp up market share in Asia.

The deal means the airline, launched in 2022, now has 76 planes on order through Boeing: 23 737-8s and 53 high-capacity 737-8-200s. AirLease Corp added two 787s to its portfolio.

According to its most recent annual report, ALC had 33 787s, either -9s and -10s, in its portfolio at the end of 2022.

AutoFlight said it will be making its first public presentation of its Prosperity I eVTOL aircraft at the 2023 Paris Air Show, scheduled to take place from June 19 to 25 in Le Bourget, France. AutoFlight Photo

The Classic 300-G is the fifth generation of the Twin Otter aircraft, joining the current Series 400. All DHC-6 Twin Otters carry passengers, transport VIPs, move cargo, conduct medivac operations, and perform special missions in the world's most unforgiving environments.

Luxembourg airline Luxair became Boeing's first Euro customer for 737-7 and placed an order for four.
The airline currently operates a fleet of eight 737 NGs (and 11 de Havilland Dash 8s). It previously had ordered six 737-8s to replace the older models. It is expected to take deliveries of those 737-8s this summer.

It was also an order day for Brazilian aircraft manufacturer Embraer. International aircraft leasing company Avolon joined the company's E2 programme with the sale and leaseback of 10 E195-E2s for Porter Airlines and Azorra placed an order for the E195-E2 type.

Other confirmed orders from Embraer include American Airlines signing for seven new E175s.
Avolon also signed an MoU with Airbus to order 20 Airbus A330neo aircraft. The new aircraft are scheduled to be delivered between 2026 and 2028.

Avolon was a launch customer for the A330neo programme in 2014 and has fully placed its current widebody order book. The A330neo has a range of over 13,300km (7,200 nautical miles) and 25% lower fuel consumption and CO^2 emissions compared to previous-generation aircraft.

IndiGo Air ordered 500 A320s – making it the largest purchase order in the history of commercial aviation for Airbus.

Including owned, managed and committed aircraft, Avolon currently has a total fleet of 616 Airbus aircraft, including 55 A330neos.

Not to be outdone, a new era for the veritable Twin Otter was also unveiled at the show as De Havilland Canada launched the DHC-6 Twin Otter Classic 300-G to support the signing of orders and letters of intent for 45 of the new variant.

Deutsche Aircraft also introduced the D328 eco with 25% more capacity than the 28-seat Dornier 328 regional turboprop, while promising a 14% decrease in fuel consumption and significantly more comfort.

ADVANCED AIR MOBILITY

An airshow first was made by Volocopter when they opened the flying display programme with their eVTOL aircraft called VoloCity being touted as the transport of choice for next year's Paris Olympic Games.

Volocopter has said that it is on schedule to secure EASA-type certification for the two-seat VoloCity aircraft in time for the games, due to open on July 26, 2024.
Director General of Airports Group ADP, Edward Cartwright, has said that five aircraft will fly passengers between five vertiport sites, including two airports, Charles de Gaulle and Le Bourget (site of the Olympic media village), Saint-Cyr (near the equestrian centre at Versailles), the Issy les Moulineaux helipad in the southern Paris suburbs, and a new landing site on a barge in the Seine River next to the Gare d'Austerlitz rail station.

Cartwright described the process for building the Gare d'Austerlitz site as challenging, and ADP plans to award a construction contract soon.

Not to be outdone, the global company and a pioneer in electric aircraft, AutoFlight also announced that it would perform experimental eVTOL flights of its aircraft called Prosperity I during the 2024 Paris Olympic and Paralympic Games.

A Memorandum of Understanding (MoU) between themselves and Groupe ADP – which owns Pontoise Vertiport, a one-of-a-kind dedicated facility for eVTOLs – was signed at the show. This vertiport encompasses all the required components for eVTOL operations, such as a dedicated take-off and landing areas, a state-of-the-art passenger terminal, and a maintenance hangar.

The Prosperity I has a potential operational range of 250 km and will be tested under real conditions. The eVTOL is said to be highly efficient and has energy consumption akin to that of an electric car.

In Hall 5 the largest concentration of eVTOL vehicles was profiled in one venue and Archer's four-passenger Midnight vehicle turned heads and made its international debut after a long trip from California.

Archer CEO Adam Goldstein and his counterpart at automotive group Stellantis, Carlos Tavares, said that they have started building a factory in Georgia, where they claim, they will someday build 1,000 eVTOLs each year.

Also present with the company was former FAA Administrator Billy Nolen, who is now Archer's chief safety officer, tasked with steering the company along the winding path to type certification.
Another European eVTOL contender, Lilium, unveiled a cabin mock-up showing how six passengers will ride up to 155 miles in its Lilium Jet.

Earlier at EBACE it displayed the four-passenger Pioneer Edition.
This German company announced plans to launch eVTOL flights in the Bao'an district of Shenzhen municipality in China and to sell up to 100 aircraft to Chinese operator Heli-Eastern. It is opening its new Asia Pacific regional headquarters in Shenzhen.

Eve Air Mobility also brought its cabin mock-up as part of a world tour. Visitors were able to try on virtual reality headsets to get a feel for riding above-gridlocked city streets – a benefit showgoers could only have dreamed of during their hellish trips out to Le Bourget.
Also under the advanced air mobility banner were French-owned Ascendance Flight Technologies, AutoFlight and EHang from China, Hyundai-backed Supernal, Overair, Joby, and Wisk Aero. Along with EHang, Boeing-owned Wisk insists it will enter service offering fully autonomous flights with no pilots on board.

Wisk Aero premiered its all-electric, autonomous sixth-generation air taxi at the show while Supernal and GKN Aerospace announced a partnership on the design and build of major aerostructures and Electrical Wiring Interconnection System (EWIS) for Supernal's eVTOL vehicle.

eVTOL Volocity air taxi is touted to be the transport of choice for the Paris Olympic games next year

And H2FLY, the developer of hydrogen-electric powertrain aircraft systems, announced the next generation of its proprietary fuel cell system H175 for commercial aircraft applications.
The H175 programme will provide a series of fuel cell systems that can be combined and upscaled to power hydrogen-electric aircraft in the megawatt-class range, which complies with aircraft that comprise 20 to 80 seats.

The development of new forms of advanced air mobility was apparent throughout the show, with TE Connectivity showing off its range of lighter, advanced interconnects and cabling that will make a significant contribution to weight reductions in UAM aircraft.

UK exhibitor Arc Aero Systems showed off a nine-seater VTOL which has its heritage in a three-seater gyrocopter design from the 1960s.

DEFENCE

And not to be ignored, the defence sector ramped up on Day Three when the F-35 lit up the skies to be followed by the Eurofighter Typhoon.

Israel's defence minister formally inaugurated his country's national pavilion featuring 17 Israeli defence companies.
It's clear the threat of hypersonic missiles is a real one, and the industry is responding.

Israel's Rafael premiered its advanced interceptor, named "Sky Sonic," as a groundbreaking defensive response to that growing threat.

Sky Sonic interceptor represents a major technological leap in hypersonic missile defence and effectively neutralises hypersonic missiles, which travel at 10 times the speed of sound.

Meanwhile, there are signs of the future in Paris, with Europe's Future Combat Aircraft System FCAS shown in mock-up form from Airbus and Typhoon.

Belgium's defence minister Ludivine Dedonder confirmed Belgium will also be joining the programme for the new generation fighter.

Airbus has also been impressive in the skies with its A400M, delivering around eight aircraft a year, the French manufacturer is pushing hard for more export orders.

And Saab presented its deployable digital tower that provides high availability, mission-to-mission modularity and flexibility for remote air traffic control operations.

The r-TWR Deployable includes everything needed for air traffic management at an established or temporary landing strip and can be rapidly transported by road or rail on one or two standardised trailers, or in a cargo aircraft of C-130 Hercules size.
Diamond Aircraft unveiled a new variant of its special mission DA62 called Vanguard with an array of new sensor capabilities for environmental surveillance missions.

INNOVATION

And MagLev Aero co-founders - a father-and-son duo - Rod and Ian Randall debuted their state-of-the-art propulsion system for eVTOL aircraft using an unlikely energy source: magnets.

Maglev is shorthand for magnetic levitation, a term that almost sounds made up. But the propulsion system is fairly common, frequently deployed to power high-speed trains. MagLev Aero, however, is working to apply it to eVTOL aircraft and has already been issued more than 20 patents for its technology.

Austrian company Diamond presented its DA62 – Vanguard offering affordable, flexible solutions for all kinds of environmental surveillance.

The startup's progress is underpinned by a development partnership with GE Additive's AddWorks, a consultancy within the automaker's design and manufacturing arm specializing in 3D printing.

"I'm thrilled to reveal the breakthrough propulsion technology we have been working so diligently and passionately on for the past few years in stealth," said Ian Randall, the startup's CEO.

"Our proprietary MagLev HyperDrive platform will enable a new generation of eVTOL designs that are dramatically more quiet, efficient, safe, sustainable, and emotionally appealing to the mass market."

Arc bought the rights and is using the already certificated technology to bring the competitor-to-helicopters to market.

ENGINES

China Airlines announced an order for 17 GEnx-1B engines and spares to power its growing fleet of Boeing 787 Dreamliner ommercial jets. The order also includes a comprehensive services agreement.

Riyadh Air also signed a deal for 90 GEnx-1B engines to power its new fleet. The order also includes spare engines and a TrueChoice services agreement.

Tony Douglas, chief executive officer of Riyadh Air said: "The agreement highlights our determination to significantly extend Saudi Arabia's connectivity with the world and fulfil our goal of connecting to 100 destinations by 2030. We look forward to fostering strong strategic relationships within the wider aviation ecosystem as we continue to shape our new digitally native airline to become one of the most sustainable and guest-centric carriers in the world."

NEWEST SEATING SOLUTION

Recaro Aircraft Seating unveiled its newest seating solution to increase cabin efficiency on Airbus aircraft.

The first-of-its-kind overwing exit seat, the X-Tend Seat, allows for an increased pax count while maintaining the 13-inch EASA & FAA requirement for the passageway.

The X-Tend Seat targets short and mid-range economy cabin configurations for narrowbody Airbus aircraft. With an easy-to-use extended seat bottom, the X-Tend Seat offers passengers a premium seating experience while increasing passenger efficiency throughout the cabin.

WINNERS

And last but not least Airbus announced the winning A350F livery. The competition called for entrants to design the livery for the prototype Airbus A350F freighter.

From over 4,000 entries, the judging panel finally selected two similar submissions and combined them as the final winning design. John Feehan, a graphic designer from Dublin, joined the competition under the encouragement of his son who is passionate about aviation. He jointly won the contest with Quinnten and Ellisten Iversen, brothers aged 16 and 12 respectively, from Calgary in Canada.

Airbus expects to have the first aircraft painted by the end of 2024 when the winning design will come to life as the aircraft embarks on its first flight.

When it enters service in 2026, the A350F will be able to carry a payload of up to 111t over a range of 5,000 miles.

Israel's Rafael premiered its advanced interceptor, named "Sky Sonic"

EU FUNDING FOR SAF DEVELOPMENT

By World Airnews correspondent Romuald Ngueyap

The European Union has provided four million euros or (US) $4,4 million for sustainable aviation fuel development in 12 African countries.

Cameroon, Egypt, Equatorial Guinea, Ethiopia, Gabon, Kenya, Mauritania, Mozambique, Rwanda, Senegal, South Africa, and India will soon receive financial support from the European Union.
The announcement was made in May this year when the Commission said the release of funds was to finance feasibility studies for the production of SAF, ways to increase their production (in countries that already produce them), and assistance with certification.

The list of beneficiary countries is to be expanded at a later date but now includes Zimbabwe, which will receive €93,000 in funding.

It is in this context that the Southern African country launched a feasibility study on the production of sustainable aviation fuels (SAF), in the presence of the ICAO and EU technical consultant on FAS, Damiana Serafini. (see more at www.worldairnews.co.za)
The EU financial support comes under the International Civil Aviation Organisation (ICAO) Capacity Building and Training Programme for Sustainable Aviation Fuels. This programme is in line with the EU's Green Deal project, which aims to help partner countries decarbonise.

"This new project responds to the global consensus that we need to take concrete steps now to achieve truly sustainable international air connectivity. Access to cleaner energy sources will be a prerequisite for achieving the long-term global goal, and all States have a role to play in achieving it, through new generation and distribution capacities," said ICAO secretary general Juan Carlos Salazar.

Image by ThePixelman from Pixabay

ORDERS AND A RELAUNCH

By World Airnews correspondent Romuald Ngueyap

Air Algérie has confirmed an order for eight Boeing 737-9 MAX aircraft signed at the Paris Air Show.

The MAX order was initially announced in May following a call for tenders. Their deliveries are expected to begin in 2027.

Fitted out in a two-class configuration with 193 seats, these aircraft will allow the airline to rejuvenate its fleet, which currently consists of twenty-four 737-800s, five 737-600s, two 737-700 freighters, and 737-800s (BCF). It also has eight Airbus A330-200S and fifteen ATR72s.

In parallel, the carrier also signeda memorandum of understanding with the American aircraft manufacturer to acquire two 737-800 BCFs (Boeing Converted Freighters) to continue the development of its cargo business.

Recall that on the long haul, Air Algérie also committed, in May, with Airbus the acquisition of five Airbus A330-900S and two A350-1000S. According to the initial schedule, four aircraft will be delivered in 2025, including the first in the second quarter of the year concerned, and three more in 2026.

In addition to these two contracts with Airbus and Boeing, the Algerian flagship has launched an international consultation for the "operational leasing (dry lease) of a fleet of up to ten aircraft". Specifically, Air Algérie is also looking for six wide-body aircraft, namely four A330-200/300 and two A330-900, but also four narrow-body aircraft, including two 737-800 and as many 737-9 MAX.

Meanwhile in Mogadishu, plans are afoot to relaunch Somali Airlines.

The Minister of Transport and Aviaton Fardowsa Osmaan alluded to this in May when an official event pronouncing national regulations to govern the air carrier sector was held.

In October 2022, a technical recovery committee was set up to produce a roadmap that would lead to the relaunch of the national carrier.

The seven-member committee is headed by Ali Ga'Al Gabow, the former director general at the Ministry of Transport and Aviation.

In the past Somali Airlines was once a profitable business. Founded in March 1964, the airline was joint owned by the Federal Government of Somalia and Alitalia on an equal 50/50 basis.

It began operations in July 1964 serving mainly a domestic market before finally launching an international operation the following year.

In 1977 the airline was acquired by the Somali government. The outbreak of the civil war in the 1990s affected operations and it was closed in 1991.

It had Boeing 707-300s, 727-200s and Airbus 310s in its fleet. At present Somalia is served by a dozen airlines, three of which are African Express Airways, Jubba Airways and Daallo Airlines owned by companies with Somali interests but based outside the country in places like Kenya and Djibouti.

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SKY GRAND PRIX VIRGINIA

Photos and text by Mike Wright

Aviation lovers flocked to Virginia airport, KwaZulu-Natal, South Africa on a beautiful clear day in their droves to witness another Sky Grand Prix event of note.

Well done to organiser Roger Deare for all his efforts in putting this event together.

There were seven competitors including defending champ Pat Davidson (Port Elizabeth), Nigel Hopkins (Johannesburg), Aude Ledormant (France), Eugene Du Preez (Johannesburg), Mark Hensman (Cape Town), Barry Eeles (Johannesburg) and Aaron Deliu (Australia).

The aircraft used were Mx 2s and Extra 330s and these powerful machines props bit into the dense coastal air and really entertained the crowds.

The Grand Prix itself is flown on a timed basis between three inflated Sky GP pylons which were positioned on the seaward side on the dunes of Virginia beach and bush. Heights are critical and so are speeds flown because of the three-minute time limit.

The judges penalised errors made on a penalty points system which gives a flown percentage at the end. Chief judge was Quintin Hawthorne, contest director Annie Boon and safety officer Cliff Lotter.

Outstanding sound was provided by Len Heine and the commentators were the USAs' Mike Galloway ably assisted by East Coast Radios Dave Guseilli and the music delighted the crowd.

The actual GP was divided to two parts; the first flown on a known sequence and the second through an unknown sequence. The overall winners of these two combined events were Aeron Deliu, Patrick Davidson, Barry Eeles and Nigel Hopkins.

This was followed by the free style event which was won by French aerobatic and airline pilot Aude Lemordant with Aaron Deliu and Nigel Hopkins, second and third places. Aude put up an awe-inspiring display to leave the judges in no doubt as to the result.

Overall results of the Sky GP were: Aaron Deliu, Nigel Hopkins and Barry Eeles. Previous winner Patrick Davidson was 4th overall.

To the judges Quinton Hawthorne (SA chief judge) Guy Auger (France) Laszlo Liszhay and Johnny Smith - well done – you had a tough job. The GP was an official International Federation of Aerobatics sanctioned event.

Again to Roger Deare and his amazing team which included his son Christian – you did SA Aviation and KZN proud.

In between the actual GP rounds the crowds were treated to wonderful displays by the Marksmen in their red machines led by Mark Hensman. Eugene du Preez and Johnny Smith also provided an awesome formation aerobatic display of note.

We had a Slick 360 radio-controlled model that produced some amazing aerobatics including several occasions where the machine was caused to hover just above the ground.

Nigel Hopkins and Jason Beamish in their Extra 330s really wowed the massive crowd with their precise formation. Hopkins is now a Boeing safety pilot while Beamish is a qualified aircraft engineer.

Sky Dive Durban Centre put on two four-man drops and the parachutes were amazing as they made their way down to smooth landings at a pristine Virginia airfield.

A reminder that the Virginia Airshow is back on September 5 - after an absence of 10 years and is being organized by Smoke On Go Publications Hayley Horan.

A radio-controlled Slick 360 model really got the crowd going with a very sharp display

The RC model Slick 360 hangs from its prop

Aude Lemordant (France) gets airborne in the MX 2 shared with Mark Hensman

Parachutist from the Durban Skydive centre touching down on in front of the massive crowd.

The Marksmen aerobatic formation thrilled the crowds in their MX 2s.

Port Elizabeth participant Patrick Davidson climbs out in his Red Bull Game Bird

Formation take-off by Jason Beamish left and Nigel Hopkins in their Extra 330s

ASTRAL NAIROBI-TEL AVIV ROUTE

Kenya-based cargo airline, Astral Aviation, has announced the launch of a new freighter route connecting Nairobi and Tel Aviv.

The scheduled service, operated by a Boeing 757 freighter, is specifically designed to cater to the growing demand for perishable goods transportation.

During the inauguration ceremony held at Astral's Jomo Kenyatta international airport hub, chief executive Sanjeev Gadhia highlighted the significant benefits of the direct flight.

The Nairobi-Tel Aviv route will substantially reduce transit time for Kenyan perishables, decreasing it from 24 hours to just five hours. Previously, these perishable goods were routed through other hubs such as Istanbul, Addis Ababa, and Dubai.

Gadhia emphasised that the new service will also facilitate exports from Israel to Africa through Astral's Nairobi hub, thereby strengthening economic ties between Kenya and Israel.

The outbound flights will efficiently transport perishable items, particularly pineapples, and vegetables, meeting the increasing demand for high-quality produce in international markets.

The new scheduled service aims to strengthen economic links and reduce transit time for Kenyan perishables

The initiative is expected to foster mutually beneficial partnerships, with Astral Aviation already forging collaborations with El Al Cargo and Challenge Airlines. These partnerships will enable the airlines to leverage their global networks to feed African cargoes from various destinations to Astral's Nairobi hub via Tel Aviv.

Astral Aviation plans to expand the frequency of the Nairobi-Tel Aviv service, transitioning from a weekly to a twice-weekly schedule.

Moreover, the airline intends to switch to a more spacious Boeing 767F aircraft to accommodate growing cargo volumes and enhance operational efficiency.

In Tel Aviv, Astral Aviation has partnered with GSA Globespeed Ltd for representation, while cargo handling services are being provided by Maman/Laufer Aviation, ensuring seamless operations and smooth handling of shipments.

A GENERAL NAMED PRESIDENT

In a surprise move last month, the Ethiopian government named the country's Air Force chief of staff to the chairman of the Board of Directors of Ethiopian Airlines.

General Yilma Merdessa, who had served on the Board of Directors since January 2021, replaced veteran and African aviation legend Girma Wake.

Ethiopian Airlines did not specify the reasons for the departure of Girma Wake, who joined Ethiopian Airlines in 1965 where he had held various positions and of which he had chaired the Board of Directors since March 2022.

General Yilma has been in command of Ethiopia's air force since June 21, 2018, appointed to his post by Prime Minister Abiy Ahmed two months after he came to power.

Founded in 1945, Ethiopian Airlines today operates a fleet of 144 aircraft and flies to 131 destinations. Having transported 8.6 million passengers during the 2021-2022 fiscal year.

It recorded a profit of (US) $937 million in the same fiscal year.

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RESUMPTION OF LUSAKA SERVICE

LAM Mozambique, the national airline of Mozambique, announced the resumption of its service to Lusaka, Zambia, starting late last month.

This move comes as part of the airline's efforts to expand its regional network and enhance connectivity between the two neighbouring countries.

Lusaka was previously served by LAM Mozambique until April 1985, making the upcoming resumption a significant milestone for the airline.

The new route will operate as an extension of LAM Mozambique's existing Maputo-Harare service, utilising the reliable and efficient Embraer ERJ145 aircraft.

The introduction of the Lusaka leg is expected to facilitate increased travel and trade between Mozambique and Zambia, further strengthening the economic ties and cultural exchanges between the two nations.

"The start of flights to Lusaka is part of the strategy of including the capitals of southern African countries in LAM's destinations", according to a recent press release.

Commencing 30th June, LAM Mozambique will initially offer three weekly flights on this route. Passengers departing from Maputo will board flight TM354, which is scheduled to depart at 12:30 and arrive in Harare at 14:05.

From Harare, the flight will continue its journey to Lusaka, with an estimated arrival time of 14:45.

The aircraft will then depart Lusaka as flight TM355 at 16:30, reaching Harare at 17:35, and finally arriving back in Maputo at 19:50.

TWELVE EMBRAER JETS

United Nigeria Airlines is set to scale up its fleet of Embraer jets and its network reach with the impending acquisition of up to 12 aircraft.

In a statement to local media, management said it will acquire two E190s, which will be delivered by the fourth quarter of this year, as well as ten E175s to arrive in batches within 24 months thereafter.

"Arrangements are in top gear for operations to Ghana, Angola, South Africa, Niger Republic, Cote d'Ivoire, and Senegal among other African countries," Chief Operating Officer Osita Okonkwo said.

The privately-owned Nigerian carrier's fleet currently entails four owned E145s deployed on scheduled flights connecting the Nigerian cities of Lagos and Abuja with Asaba, Enugu, Owerri, Bayelsa, and Port Harcourt Omagwa.

One photo Embraer and Nidec plan to develop electric propulsion systems together. Source: BillyPix

NIDEC AND EMBRAER

Nidec Corporation and Embraer have agreed to establish a joint venture company, called Nidec Aerospace, to develop Electric Propulsion Systems for the aerospace sector.

The transaction combines the complementary synergies and distinct areas of expertise of two world-class engineering companies to spearhead a new era of air mobility.

The announcement was made as part of the 54th Paris Air Show held last month.

The joint venture is aimed at unlocking new opportunities by providing a portfolio of products and services worldwide, driven initially by the growth of the Urban Air Mobility industry.

Nidec Corporation will be backed by Embraer's more than 50-year history of complementary aerospace experience to design, certify, produce, and commercialise next-generation electric propulsion systems.

The JV will develop and manufacture an electric propulsion system for eVTOL vehicles, to provide the system to non-eVTOL vehicles in the future.

Nidec Aerospace will be jointly owned, with Nidec owning a 51% share and Embraer the remaining 49%.

Headquarters will be at the Nidec Motor Corporation in St. Louis, Missouri, USA, and will be supported by both companies' existing industrial footprint in Brazil and Mexico.

"Technological innovation will be a key contributor to the International Civil Aviation Organisation (ICAO)'s commitment to carbon neutrality by 2050. The JV is a natural extension of both companies' respective and continual investments in green technologies across multiple industries to accelerate global carbon neutrality. We are proud to be partnered with Embraer and are confident that Nidec Aerospace will spearhead the electrification of aircraft with our shared drive, complementary expertise, and wide breadth of technical and manufacturing capabilities," said Michael Briggs, senior vice president and president of the motion & energy business unit at Nidec.

"Innovation is our future growth driver and a key pillar of our strategic plan. That's why I'm extremely excited about this strategic partnership with Nidec to develop agnostics solutions for the aerospace sector. Demand for electric propulsion systems is growing exponentially in the aerospace sector, and we are confident that Nidec and Embraer together can accelerate the development of advanced products to enable the future of sustainable aviation," Francisco Gomes Neto, president, and CEO at Embraer.

The JV's electric propulsion system launch customer will be the eVTOL manufacturer of Eve Air Mobility, an independent company positioned to be a global leader in the UAM segment.

The JV remains subject to antitrust approvals, other possible regulatory approvals, and customary closing conditions, as well as both companies' approval with the board of directors.

The companies expect the matter to be closed in the second half of 2023.

UGANDA WILDLIFE TRANSPORTATION

Uganda's BAR Aviation has made a ground-breaking achievement in the field of wildlife transportation – successfully moving a group of 18 rhinos recently from South Africa to Congo using its C-130 aircraft.

Uganda's BAR Aviation successfully transported rhino from South Africa to the Congo using is C-130 aircraft

The aviation sector gained a boost of confidence through this event demonstrating Uganda's unwavering commitment to the conservation of wildlife on the continent.

The journey of these creatures also marked a significant milestone for Uganda as a key player in global conservation efforts.

According to the Wildlife Conservation Society, Uganda has long been recognised as a leader in wildlife conservation, ranking second richest for mammals and 13th in the World. It is also home to diverse ecosystems and a rich array of plant and bird species.

The successful transportation of these rhinos reinforced the policies created by the Ugandan government as an enabler for private organisations to partake in initiatives meant to preserve its heritage and contribute to global conservation efforts.

The successful operation by BAR Aviation underscores the rapid development and competence of Uganda's aviation industry as such ventures are economically demanding requiring precision execution.

African Parks CEO Peter Fearnhead said, "Efforts to save the northern white Rhino was a case of 'too little, too late' and should never be allowed to happen again" so Bar is ready to embark on this move since Garamba is a safe location and has proper protection.

BAR CEO Barak Orland said, "This is an incredibly profound moment for us at BAR Aviation. Our team worked tirelessly over many months to make this dream into reality and we are delighted that we could be part of something so meaningful for both our country's image abroad as well as for global conservation efforts".

This feat achieved by BAR Aviation highlights its commitment to pushing boundaries within aviation services while providing safe and reliable solutions that help preserve our planet's precious resources.
its wildlife.

BAR Aviation, based at Kajjansi Airfield, North of Entebbe airport provides the full range of aviation services including private jet charter, scheduled domestic flights, Med Evac and helicopters as well as MRO, leasing and drones.

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MAXIMISING FLIGHT REVENUES

By World Airnews correspondent Wallace Mawire

National flag carrier Air Senegal has selected Aviator from Maxamation to help maximise flight revenues.

The latest web-based Aviator system has recently been activated along with extensive training for the revenue management team that will all be conducted in French.

CCO Eric Gueye said, 'Air Senegal is a growing airline and we look for partners who can truly become part of our success story. We are thrilled to partner with Maxamation and their Aviator revenue management system. This month we moved to the latest web-based Aviator. It's a new, powerful revenue management system with comprehensive functionality for our RM team. The face-to-face training was excellent and we appreciated that the entire training was provided in the French language. Thanks to Marko's thorough training and the new Aviator Revenue Management system, our team is now ready to generate more revenue from every flight."Air Senegal claims to have the perfect combination of great service, an attractive schedule, and an excellent on-board product.

As a result, Air Senegal has grown to connect 11 countries in Africa, and three in Europe and has just added New York to their network.

Peter Brewer, CEO of Maxamation, said that he is thrilled to have Air Senegal as an ongoing partner.

'We are excited to offer Air Senegal a wide range of new Aviator features, each of which can be used to create more revenue from every flight. To make sure that Air Senegal will get every benefit from the new Aviator system, training materials, and sessions were conducted in the French language," he said.

Maxamation is a global IT provider to the Airline industry, providing cloud-based revenue management. Aviator provides airlines with the ability to maximise flight revenue with an easy-to-deploy, stable, powerful system that delivers proven revenue results.

Maxamation is headquartered in Sydney, Australia, with support centres and experienced revenue management experts in South Africa, Europe, Asia, and North America. The company was founded in 1997.

A FIRST B767 FREIGHTER

Air Tanzania has taken delivery of its first widebody freighter following the arrival of B767-300F 5H-TCO in East Africa last month.

The new-build freighter was ferried from Everett, where it was handed over to lessor TGF - Tanzania Government Flight on June 1, to Dar es Salaam via Casablanca Mohamed V airport.

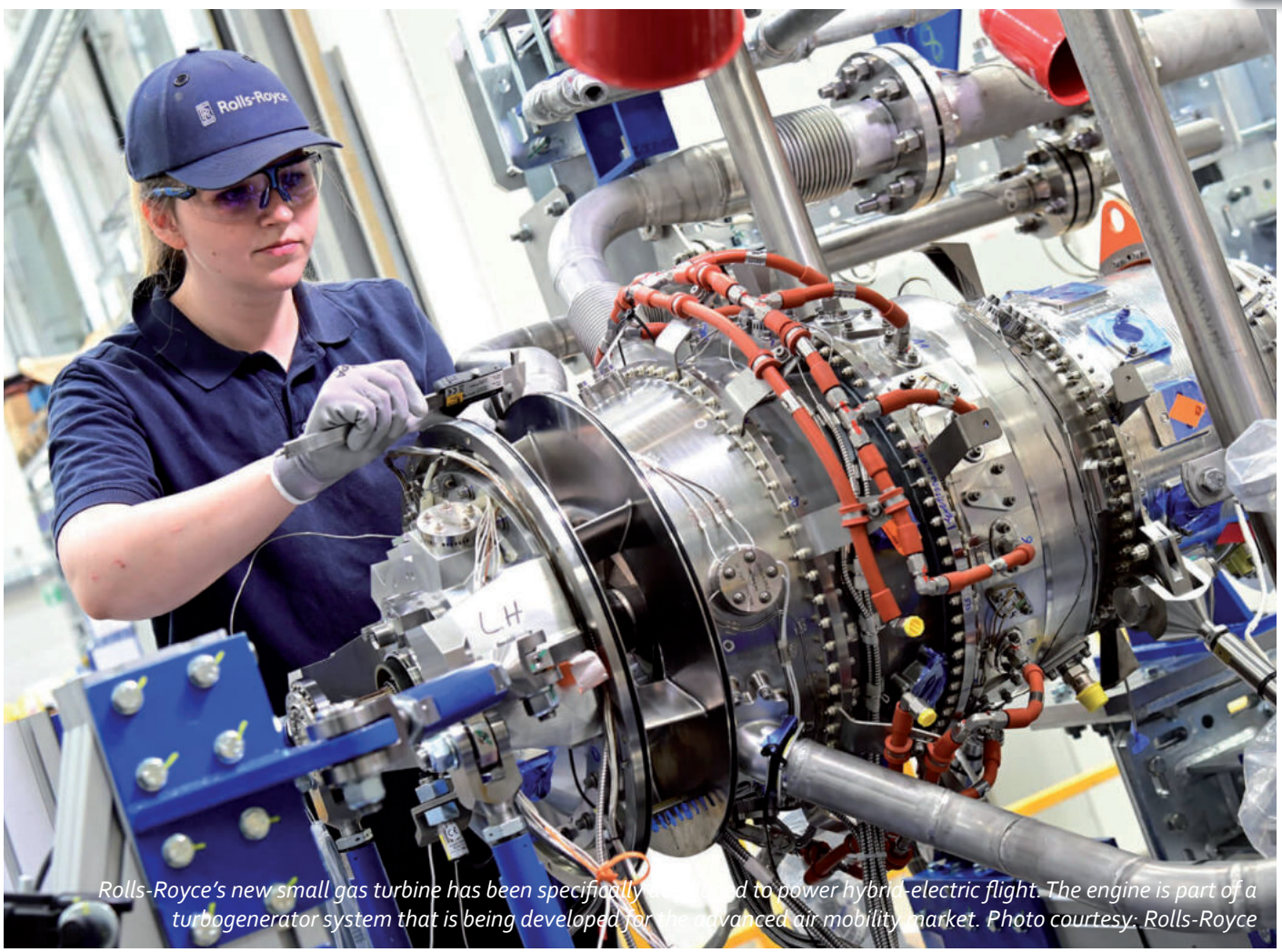
Briefing members of the media in Dar es Salaam works and transport minister Makame Mbarawa said the freighter would allow local farmers to export fish, meat, flowers, vegetables, and fruit to markets across Africa, Europe, and Asia without having to rely on foreign operators.

"We expect that when the plane starts operations it will reduce costs to traders in transporting their goods, as presently they incur extra costs when using charter planes and scarce regular flights, plying each destination twice per week," he said.

Once all regulatory procedures have been completed this month, 5H-TCO's initial destinations will include Nairobi Jomo Kenyatta (Kenya), Dubai (UAE), Mumbai International (India), Entebbe/Kampala (Uganda), Guangzhou (China), Lusaka (Zambia), Harare International (Zimbabwe), and Kinshasa N'Djili (Democratic Republic of the Congo), among others.

Mbarawa said it will also be available for charters should demand arise. The ch-aviation fleets advanced module shows that state-owned Air Tanzania operates four A220-300s (three stored), two B787-8s, one Dash 8-300 (stored), and five Dash 8-400s, all of which are leased from TGF. Barring any unforeseen production delays at Boeing (BOE, Washington National), it is also expecting two B737-9s in August and December 2023, and one more B787-8 in February 2024.

Last month, Mbarawa alluded to plans to acquire a first B737-7 as well as one more Dash 8-400 although no firm orders have yet been publicly announced.



Rolls-Royce's new small gas turbine has been specifically developed to power hybrid-electric flight. The engine is part of a turbogenerator system that is being developed for the advanced air mobility market. Photo courtesy: Rolls-Royce

ROLLS-ROYCE SMALL ELECTRIC ENGINE

A new small gas-turbine Rolls-Royce engine - specifically developed to power hybrid-electric flight is set to begin testing.

The engine is part of a turbogenerator system that is being developed for the Advanced Air Mobility market.

This includes electrical vertical take-off and landing (eVTOL) Aircraft for Urban Air Mobility and Commuter Aircraft applications up to 19 seats.

The turbogenerator system will complement the Rolls-Royce Electrical propulsion portfolio by delivering an on-board power source with scalable power offerings between 500kW and 1200kW enabling an extended range of sustainable aviation fuels (SAF) and later, as it becomes available, through hydrogen combustion.

This will open up new, longer routes that electric battery-powered aircraft can support today.

"Rolls-Royce will be the leading provider of all-electric and hybrid-electric power and propulsion systems for Advanced Air Mobility. The Pass-To-Test (PTT) of our brand-new small engine that will power our turbogenerator system is an important step forward. This product will enable our customers to extend the routes that electric flight can support and means more passengers will be able to travel further on low to net zero emissions aircraft," said Olaf Otto, president electrical.

The development of the turbogenerator system is combining Rolls-Royce's electrical and gas turbine development competencies.

The new combustion engine uses recent technology developments to achieve a step change in the efficiency of small gas turbines. The turbogenerator can be used in serial or parallel hybrid applications. It is well suited to recharge batteries as well as provide energy to electrical propulsion units directly and therefore enables aircraft to switch between power sources in flight.

The research and development of this technology are being partially funded by the German Ministry for economic affairs and climate action.

This engine will be tested on SAF in the coming months and will be used for the commissioning of Rolls-Royce's test facility in Dahlewitz. The Rolls-Royce power gearbox test facility has been modified to accommodate testing of the new engine and to confirm the engine's technical attributes.

Rolls-Royce is developing complete power and propulsion systems for all-electric and hybrid-electric applications. Our systems under design feature the latest technology, from power generation and energy storage via power electronics and control systems to electric motors.

LOCKHEED WILL USE GE AEROSPACE CF6 ENGINE TO POWER FUTURE TANKER DESIGN

American military airframer Lockheed Martin has selected GE Aerospace to provide engines for a planned aerial refueller it hopes to sell to the US Air Force (USAF).

Lockheed announced its LMXT strategic tanker will be powered by GE Aerospace's CF6-80E1 turbofan engines.

The LMXT is based on the A330 multi-role tanker transport (MRTT) design, a derivative of the Airbus passenger jet.

"GE's CF6 engine is selected for the LMXT due to its proven durability, reliability, and performance," Lockheed said.

Designed specifically for the A330, the CF6-80E1 variant offers strong technological advancements over previous CF6 engines, including nearly 70,000lb (311kN) of thrust and 15% greater fuel efficiency.

There are currently 56 A330 MRTTs in service around the world, according to Airbus, with an additional 12 on order. Operators have a choice of engine, with Australia and Saudi Arabia using the CF6 powerplant.

Other MRTT users, including France, Singapore, South Korea and the UK have their aircraft powered by the Rolls-Royce Trent 770-series engine.

R-R has said the Trent 700 powers 70% of A330 operations globally.

However, whether the USA will fly the LMXT remains an open question.

Lockheed is pitching the type to fill the so-called "bridge tanker" role envisioned by the USAF.

Also known as the KC-Y, the still-unspecified platform would be a stepping stone between the Boeing KC-46 and the more survivable Next-Generation Air-refuelling System (NGAS).

While the service originally envisioned purchasing 75 KC-Y aircraft, for which LMXT is the frontrunner, USAF officials have more recently indicated they may scrap the programme entirely.

The fiscal year 2024 budget documents and official statements indicate the service will likely drop the KC-Y development plan, choosing instead to purchase more KC-46s and accelerate NGAS development.

"The information that industry has previously provided... may lead us towards KC-46 [as] the answer," Andrew Hunter, chief of acquisitions for the USAF, said at an Air and Space Forces Association conference in Colorado in March.

The decision could result in an additional 75 KC-46 orders for Boeing, rather than 75 LMXTs for Lockheed.

While the USAF is targeting the early 2030s for fielding NGAS, Lockheed is positioning LMXT as the answer to any potential delays that may arise in that new aircraft development process.

"[The USAF] have stated that they want to maintain uninterrupted tanker recapitalisation," said Larry Gallogly, head of business development for Lockheed's USAF air mobility programmes.

"Their aspirational goal is that NGAS be operational by 2035," he notes. "We believe that's a very, very aggressive target for a full developmental programme."

Gallogly said Lockheed will push for the USAF to hold a competition for a block of 75 KC-Y aircraft rather than awarding a sole-source contract to Boeing for additional KC-46 tankers.

"Competition drives value," he argued.

Gallogly said Lockheed expects the USAF to complete its final tanker acquisition strategy by the end of 2023, including whether the service will competitively award a contract for the "interim block" of aerial refuellers or purchase additional KC-46s.

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MRO ORGANISATIONS ELIMINATE HUMAN ERRORS IN COMMUNICATION

In the complex field of MRO, effective communication between clients and maintenance organisations plays a crucial role in ensuring seamless operations, minimising downtime, and maximising productivity.

However, despite advancements in the industry, human error is still a prevalent issue in MRO communication, leading to costly delays, misunderstandings, and potentially compromising safety.

"One of the main challenges in MRO communication lies in the complexity of the tasks involved," said Laimonas Antanaitis, product director at Sensus Aero, a new-gen software solution for the aviation industry.

"Maintenance activities often require close co-operation between technicians, engineers, suppliers, and clients. This intricate system of involved parties that often communicates through several different channels increases the chances of miscommunication."

According to Antanaitis, misinterpretation of information or untimely communication can often lead to challenges and errors. "Clients may struggle to articulate their requirements accurately, especially when changes or updates to processes or operations are required. Furthermore, communication difficulties can strive from inconsistency, lack of transparency, or clarity in the information provided. This can lead to costly work delays or rework, which can have unfortunate repercussions and hinder the relationship between the parties involved."

Furthermore, the fast-paced nature of MRO operations and the pressure to meet tight deadlines contribute to errors in communication.

"In such high-stress environments, especially now when the demand for MRO services is at an all-time high, individuals may overlook important details, skip essential steps, or fail to provide timely updates," he explains.

Additionally, communication can fail when operation records are incomplete, incorrect, or get replaced. "Poor record-keeping and inconsistent practices make it hard to track changes, verify instructions, or revisit past conversations. This lack of documentation hampers efficiency and makes it tough to find the cause of errors and take preventive measures."

Such human errors in MRO communication can be addressed not only by investing in effective communication skills training for organisation employees but also by leveraging technologies.

"There are quality tools created precisely with MRO organisations and their processes in mind," Laimonas said. "Systems, such as our Sensus Aero Customer Portal module, can streamline communication between customers and service providers, allowing for fewer misunderstandings or miscommunication, which in hands saves time and costs for both parties. Our records show that by using tools like Sensus Aero, businesses can eliminate up to 97% of human errors and increase effective hours by 17%."

Collaboration between customers and organisations is vital in minimising human errors in MRO communication. And to simplify the process and increase its effectiveness, modern tools and innovations come to aid.

Sensus Aero is a family member of Avia Solutions Group - the world's largest ACMI (aircraft, crew, maintenance, and insurance) provider with 180 aircraft fleet, operating on all continents in the world. The Group also provides various aviation services such as MRO, pilots and crew training, ground handling, and other interconnected solutions.

MTU MAINTENANCE ZHUHAI'S SECOND TEST CELL

MTU Maintenance Zhuhai has opened its second test cell, located in Jinwan, after a recent ceremony with CAAC representatives, local government and representatives from China Southern and MTU Maintenance today.

Having received CAAC, EASA and FAA approval for PW1100G-JM engines at the beginning of last month, the 60,000 lb thrust test cell is now up and running and will ramp up to an annual capacity of 260 tests.

The PW1100G-JM engine is the Pratt & Whitney GTF engine for the Airbus A320neo family aircraft.

"We are delighted with the opening of the test cell facility in Jinwan. It is a great milestone in this project and will not only support both facilities in their operations but also the growth of the aviation sector in the Guangdong-Hong Kong-Macau Greater Bay Area, " said Board chairman MTU Maintenance Zhuhai Wu Rongxin.

The test cell is part of the new facility, MTU Maintenance Zhuhai Co Ltd - Jinwan Branch, that will be built in the Jinwan District, Zhuhai, Guangdong Province, China – 20 minutes drive from MTU's existing facility, MTU Maintenance Zhuhai.

The building of the test cell has already begun before the rest of the site, driven by strong demand from the MTU Maintenance Zhuhai site.

This follows from the introduction of LEAP engines in 2019 and the PW1100G-JM engines in 2020 in addition to the CFM56 and V2500 engines already being serviced.

It takes MTU Maintenance Zhuhai's total technical test capability to 710 engines a year and supports both sites' ramp-up.

The new Jinwan site will primarily focus on PW1100G-JM and V2500 engines, is expected to start operations in 2025, and will ramp up to a capacity of 260 shop visits.

"The new test cell will both increase our MRO capacity, in particular for the PW1100G-JM engine, as well as improve our throughput and speed of execution," said Michael Schreyögg, chief programme officer, MTU Aero Engines.

"We are excited to support the growing GTF fleet and in particular, cater to and exceed our customers' requirements in the Asian region. Further, a training centre is currently being built at MTU Maintenance Zhuhai that will train up to 100 engine mechanics each year for both facilities and ensure the availability of highly qualified personnel to support the ramp-up".

The MTU Maintenance Zhuhai and Jinwan facilities will benefit from their proximity to Hong Kong, Guangzhou, Shenzhen, and Macao. Service teams can be dispatched to the customers in the region in no time.

The current MTU Maintenance Zhuhai shop has advanced machinery and performs 80 percent of parts repairs in-house.

MTU Maintenance Zhuhai serves over 90 customers from China, Asia, and around the world, including International Aero Engines, Saudia Airlines, and All Nippon Airways, as well as Chinese Shenzhen Airlines, Xiamen Airlines, and Hainan Airlines. The new shop will also provide MRO to third-party customers.

ZEROAVIA HYDROGEN-ELECTRIC REGIONAL JETS

An aviation company focused on zero-emission, hydrogen-electric engines, ZeroAvia has identified clear applications for its propulsion for regional jet aircraft.

As part of the initial technical study conducted alongside Type Certificate holder MHIRJ over the last year, an initial entry-point for a CRJ 700 retrofit with ZeroAvia's ZA 2000RJ powertrain - confirming maximum take-off weight, the centre of gravity, and structural allowances - has been identified.

The study also validates the retrofit approach for other in-service CRJ series aircraft, such as the CRJ 550 and 900.

The hydrogen-electric CRJ aircraft would be equipped with two ZeroAvia regional jet engines (derivatives of the ZA2000 engine class) to match the existing performance and ZeroAvia analysis suggests it could support up to 60 passengers with a range of up to 560 nautical miles, covering more than 80 percent of current flights.

The study identified good opportunities for onboard hydrogen fuel storage and powertrain integration to ensure the preservation of aircraft aerodynamics.

Critically, the system would drastically reduce operating costs by hydrogen fuel use and reduced maintenance costs, creating opportunities for new routes, as well as more flights on existing routes to match or increase passenger volumes.

The technical assessment identified that the loss of turbine core thrust could be overcome within the constraints of the original airframe with increased fan diameter, while further efficiency gains were possible by adopting novel propulsor technologies such as geared, ducted electric fan, or open rotor designs.

The assumptions based on the phase 1 study included HTPEM fuel cell system-specific power of 2.4 kW/kg. ZeroAvia has already demonstrated 2.5 kW/kg at the cell level of its HTPEM stacks and plans to deliver 3 kW/kg system-level specific within two years. Such an achievement would boost the operating characteristics of the envisaged hydrogen-electric CRJ.

The CRJ is already the world's most successful family of regional aircraft. There are more than 1,400 CRJ Series aircraft that could potentially be converted to fly with the ZA2000 engine.

Val Miftakhov, the CEO, ZeroAvia, said: "At this early stage in our work together, to already see a viable pathway to clean propulsion with CRJ aircraft should be thrilling to everybody who wants us to keep flying. There is some payload and range compromise, but this technical study confirms a viable propulsion architecture and integration which could be utterly transformational. Before the end of the decade, airlines could be flying zero-emission jets."

Hiro Yamamoto, CEO, MHIRJ said: "MHIRJ is proud to work with ZeroAvia and to have completed the initial study to determine the viability of hydrogen propulsion on a regional jet. Confirming that hydrogen-electric propulsion could work for an aircraft like the CRJ is a great step forward towards the decarbonization of regional flying."

ZeroAvia is a leader in zero-emission aviation, focused on hydrogen-electric aviation initially targeting a 300-mile range in 9–19 seat aircraft by 2025, and up to 700-mile range in 40–80 seat aircraft by 2027. Based in the US and the UK, ZeroAvia has already secured experimental certificates for its three-prototype aircraft.

Hydrogen-electric propulsion pioneer ZeroAvia will collaborate with MHIRJ engineering group to design retrofit and line fit options for Regional Jets.

SSJ-NEW PROTOTYPE

By David Kaminski-Morrow

Russian airframer Irkut's first SSJ-New twinjet is nearing initial flight tests, but the first aircraft will still be equipped with PowerJet SaM146 engines rather than the domestically-built powerplants.

The decision to retain the SaM146 for the maiden flight is intended to "speed up" the test programme, said Russian state technology corporation Rostec.

Rostec said the Russian-built Aviadvigatel PD-8 engines will arrive at the Komsomolsk final assembly line soon and will be fitted to the second SSJ-New prototype.

The SSJ-New is a modified version of the Superjet 100 that features a higher proportion of domestically-produced systems and components, intended to reduce the aircraft's reliance on foreign imports.

Sanctions applied by the European Union, the United Kingdom, the United States and Canada, which restrict Russia's ability to import Western-made aircraft and parts, added pressure to aircraft production after the military invasion of Ukraine in February 2022.

"We have reached the finish line of preparing the SSJ-New for its first test flight," said Rostec first deputy general director Vladimir Artyakov.

"The first flight will take place in the near future, after ground checks of the equipment."

Members of a scientific-technical council have assisted with drawing up a list of necessary ground checks for the twinjet following a session dedicated to progress with the prototype aircraft.

"Within a few weeks, we will begin factory development tests, within which the first flight will take place," said Irkut general director Andrei Boginsky.

Federal air transport regulator will then be involved in the certification programme to approve the imported equipment on the SSJ-New.

"This will allow the start of serial production and commercial operation of the aircraft," said Boginsky. "At each stage of testing, our unconditional priority will be to ensure the safety and reliability of equipment, because soon this aircraft will have to carry passengers."

Artyakov said the SSJ-New and the Irkut single aisle MC-21 are set to become fundamental to Russian airlines' fleets.

"We understand how important this aircraft is for our country, and we are therefore doing everything possible to put it into serial production as soon as possible," he said.

IATA **FOCUS ON AFRICA**

Last month saw the International Air Transport Association (IATA) launch their 'Focus Africa' initiative which is more about establishing a coalition of partners - a collaboration - to commit resources to deliver on a set of African air transport solutions.

The motivation behind all of this is to let the continent, its people, and its economies play a greater, more meaningful, and representative role in the global economy.

"Africa accounts for 18% of the global population but less than 3% of global GDP and just 2.1% of air passenger and cargo transport activity. With the right interventions those gaps will be closed, and Africa will benefit from the connectivity, jobs, and growth that aviation enables," said Willie Walsh, IATA director general.

And the African Civil Aviation Commission (AFCAC) and the Airlines Association of Southern Africa (AASA) became its newest partners.

All of this as about 400 leaders and decision-makers from airlines, airports, air navigation services, government agencies, aircraft manufacturers, industry suppliers and other stakeholders convened in Addis Ababa, Ethiopia to address the six priority task areas.

Firstly the event saw the launch of the Collaborative Aviation Safety Improvement Programme (CASIP) aimed at reducing the accident and serious incident rate across Africa.

Launch partners in the programme include the International Civil Aviation Organisation (ICAO), AFCAC, the US Federal Aviation Administration (FAA), Boeing and AASA.
Together, these CASIP partners will prioritise the most pressing safety concerns on the continent and rally the resources needed to address them.
"Safe, efficient and reliable air connectivity is a major driving contribution to the UN's Sustainable Development Goals. In that sense, CASIP will make it clear to governments across the continent that aviation must be prioritised as an integral part of national development strategies, " said Walsh,
The starting point for safety improvement is the effective use of global standards for safety. At government level, a key indicator is effective implementation of ICAO Standards and Recommended Practices (SARPS).

Data for the year 2022 reveals considerable room for improvement with only 28 of 54 African states reaching an effective implementation rate for ICAO SARPS of 60% or higher.

In parallel, the CASIP partners will identify deficiencies in operational safety and implement corrective action plans, provide safety training and workshops continent-wide, promote a data-driven approach to safety performance with emphasis on making safety data available to decision-makers and ensuring efficient accident/incident reporting.

The event ended with a further call by IATA on the government of Ethiopia to act swiftly to clear the (US) $95 million in airline funds blocked from repatriation to ensure the country's connectivity is not threatened.

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