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RETIRING TYPE

This month's checklist photo is of the reliable RAF C-130J-30 Hercules - (the -30 indicating it is the stretched version). The C-130J-30 airlifter adds 15 feet to the fuselage, increasing usable space (two more pallets of equipment) in the cargo compartment. But it's due to retire at the end of June.

Hercules enthusiasts will have a last chance to see this type as one will be on static display at this year's RAF Cosford Airshow June 11. Manufactured by Lockheed Martin, this tactical and medium transport air lifter can deliver cargo to airfields with short, unsurfaced runways or drop paratroops by parachute. Thanks to Sam Basch for supplying the photo that is apparently on the RAF website. Meanwhile a big shout out to Image by Pau Mondragón from Pixabay for our front cover photo of a drone.

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AIRCRAFT OF THE **FUTURE**

By Heidi Gibson

It's hard to write this without sharing some of the highlights from this year's European Business Aviation Convention and Exhibition or EBACE 2023. It's the curse of having to produce a magazine ahead of time but all is not lost – just go to our website to see more up-to-date information.

I love technology.

In the meantime, though it is interesting to read that Textron Aviation opened media day at EBACE with a flair. They revealed their Citation Ascend with a mock-up at their stand. Today they are taking orders for this midsize - nine-passenger (US) $16.75 million jet. This business jet is positioned to replace the Citation XLS Gen2.

Textron Aviation has been quoted as saying that there is strong demand for this aircraft with entry-into-service expected in early 2025. And on the back of this engine maker Pratt & Whitney Canada revealed design details of the PW545D turbofan derivative it is developing for this mid-size jet.

The engine, which is based on the two-shaft architecture of the long-running PW500 family, is expected to be rated at around 4,200 lb. thrust making it the most powerful variant of the PW545 series.

Despite the power increase, the engine developer says the configuration has been optimised for improved fuel burn and longer time between overhauls (TBO).

Dassault used the opportunity to showcase its latest and largest jets. The twin-engined Falcon 6X and 10X as well as the Falcon 2000LXS twin and the 8X trijet. While newly appointed, Boeing Business Jets president Joe Benson told those present that the company is "off to a strong start" for the year with orders and commitments for four aircraft and one delivery so far in 2023.

The new order batch includes a BBJ MAX 7, based on the still-to-be-certified 737-7 variant of the Boeing MAX family—as well as two BBJ 787-8s and the first commitment for a BBJ version of the 777-9, initial commercial versions of which are due to enter service in 2025.

The BBJ 777-9 is the company's new head-of-state aircraft, replacing the 747-8 which is now out of production.

Meanwhile, I do need to give credit to last month's cover photo from Silicon Valley EVTOL company Archer Aviation. Thank you for sending us your lovely photos. The cover photo featured their demonstrator aircraft dubbed 'Maker' aimed at improving urban air mobility.

A two-seater EVTOL, Maker has 12 electric propellers, six tilt-props (each with five blades) for forward and VTOL flight, and six stationary propellers for VTOL-only flight (each propeller having two blades). The aircraft has a lovely, sleek modern design with one main high wing, a V-tail, and tricycle fixed wheeled landing gear.

The Maker prototype was rolled out in Hawthorne, California (near Hollywood) in 2021 and made its first hover flight on Dec 16 of the same year. It is interesting to note that Maker is the prototype of its production aircraft, called Midnight, which was unveiled in November 2022. The Midnight aircraft, seats four passengers and one pilot and sports the same '12-tilt-six' propeller configuration as Maker.

It's easy to get confused but don't be. These are the aircraft of the future.

PHOTO: Textron Aviation VIDEO: EBACE TV

IT'S NOT A DRONE

As this unmanned aerial vehicle does not have more than two rotor-blades, it is not a drone but more like a helicopter. Heidi Gibson, editor *World Airnews* spoke to an Austrian company called FlyNow CEO Jurgen Greil about their UAV.

WAN. Can you tell me about the company, when was it founded, who are the key personnel and how many people are employed?

FlyNow: FlyNow Aviation was founded in 2019 with its headquarters in Salzburg, Austria, with the aim of making 3D mobility accessible and affordable for the general population and to significantly reduce the resources and energy requirements per passenger kilometre compared to existing, ground-based transport systems on vehicles as well as on the infrastructure side. We consider all our internal team members as key personnel and right now we are 15 people internally and in the process of growing. In addition to this, we have a high-profile team of external experts and development partners.

WAN: Let's talk about the two different eVTOL UAVs that FlyNow is designing; the motors, the actuators, the drive train, and how you achieve stability?

FlyNow: We are designing a modular family of cargo and passenger versions which we call Cargo Air Vehicle (CAV) and Personal Air Vehicle (PAV) for a payload of up to 200kg and a range of 50 kilometres. All variants share the same drive train, which basically consists of the four batteries that supply the two-quadruple redundant electric motors with power and drive the two counter-rotating coaxial rotor propellers.

The two e-motors are situated in one housing, which sits on a gimbal joint. With this configuration a tilting head mechanism is established, which enables the total drive train via two actuators to roll and pitch. Yaw is controlled by the torque difference of the two e-motors and by increasing and decreasing motor rpm you can climb and descend.

Since the centre of gravity of the cabin is below the gimbal joint, mother nature contributes to static stability with the help of gravitation and dynamic stability due to the aerodynamic form of the cabin. The rest is accomplished by our dynamic control strategy.

WAN. Can you tell our readers more about the overhead coaxial rotors and what was the thinking behind this design choice?

FlyNow : For VTOL aircraft – especially if they have batteries as energy carriers – efficiency is an absolute must! Since coaxial rotor systems with a low disc loading are known to have the best 'lift to power-ratio' it was clear from the beginning to follow this path, which results in a second big advantage and a prerequisite for urban air mobility – low noise emission. Due to the tilting head mechanism and direct drive train described above we could eliminate the biggest disadvantage of conventional coaxial rotor systems - the high mechanical complexity. So we have the best of both worlds without the negative constraints – high efficiency and low noise with a simple and robust drive train.

WAN. How will the signals be interconnected for feedback loop and the PID control? How will this work?

FlyNow: Our vehicle uses advanced 2-DoF control comprised of a feedforward and a feedback controller. While nonlinear feedforward control aims at proactively moving the PAV along a desired trajectory, feedback control is used the eliminate the remaining error. The feedback controller is based on a cascaded structure.

WAN: I understand that the company has recently received your electric motor – who manufactured it? What is its size, weight and power? How will it be integrated with the other components?

FlyNow: The electric motor was developed together with Compact Dynamics, a company that enjoys a good reputation for its expertise, especially for special powertrain solutions in the field of racing and aviation. The total weight of the drive train including all components is 50kg. The peak power is 52 kW. As described above the e-motors are sitting in one housing mounted on the tilting head mechanism.

WAN: I understand FlyNow is way ahead of other eVTOL companies in terms of certification. Can you tell our readers your progress so far – as EASA regulations in this sector are pretty strict?

FlyNow: Even before the company was founded, we showed our concept to the aviation authorities and asked them for their opinion and asked for their support. Probably the most important difference to most of our competitors is the fact that our CAV and PAV is by definition not a drone, but rather a helicopter, allowing us to design the aircraft following existing EASA regulation CS 27 and CS VLR, rather than SC-VTOL. This is obviously a big advantage since many aircraft have been certified following CS 27 and CS VLR, but to our knowledge no aircraft has been certified following SC VTOL so far.

WAN: Can you explain in simple terms what the certification in SAIL II means for your company and for our readers?

FlyNow: Concerning certification we are following a three-step approach, which has been co-ordinated with the aviation authority. The first milestone was achieved at the end of last year when we were issued a certification in the "specific category".

SAIL stands for the Specific Assurance and Integrity Level and the number 1 to 6 describes the organisational effort to be allowed to operate the aircraft. The higher the number the lower the effort. SAIL II is for testing the Proof of Concept (PoC) and includes many constraints. In the second milestone, we will increase the SAIL number so we are then allowed to commercially operate our CAV over low and unpopulated areas. Then for the third milestone, we can then transport people over populated areas in the certified category.

WAN: When are you expecting your prototype to be completed and approved for your first flight test?

FlyNow: We finished the process of testing and assembling all components right now, started implementing the components and intend to start testing and flying the PoC this summer. The required permits have already been issued.

WAN: How will it work once it is operational? Will people be encouraged to buy and their own, or do you envisage this as part of a government/privately owned UAM service?

FlyNow: The first commercial application will be for the Cargo Air Vehicle transporting goods over non-populated areas. Possible fields of application are the supply of hard and difficult-to-reach areas, urgent or time-critical deliveries, natural disaster relief, but also the supply of everyday goods or important spare parts. In the beginning, the business will B2B, since besides the aircraft itself you also need to establish the necessary ecosystem, which will most likely be built by private-public partnerships consisting of operators and authorities.

WAN: Can you estimate its end cost and who would you be targeting as customers?

FlyNow: We are aiming for a purchase price comparable to a mid-size car and a cost of operation between a public transport ticket and a taxi ride. First customers will be either government entities or mobility companies with experience in the aviation industry. From there our concept would grow in pretty much all directions associated with mobility.

WAN: As you are aware most of our readers and circulation are based in Africa. Our continent has a number of challenges in terms of infrastructure such as the supply of electricity, the Internet and other related services. Do you believe such a solution would be able to function in Africa? What are the basic necessary components that need to be in place for it to function properly?

FlyNow: African countries have been leap-frogging in many areas such as communication infrastructure and thus have turned a supposed disadvantage into an advantage. With 3D mobility, the necessary infrastructure requirements are only a fraction compared to existing ground-based transport systems. This is an advantage that should not be underestimated, especially in countries with poor or missing transport infrastructure. I, therefore, believe that 3D-mobility - done right - will not only contribute to increased economic growth and boost the creation of high-value jobs.

SHOWCASED IN BELARUS

Russian defence trader Rosoboronexport displayed their latest weaponry at a national pavilion at MILEX 2023 - an international exhibition and trade fair of arms and military equipment held from May 17 to 20 in Minsk, capital of the Republic of Belarus.

The exposition comprised a variety of weaponry with the latest combat aircraft and helicopters on display.

"Rosoboronexport is proud to present at MILEX 2023 a wide range of Russian military and special-purpose products, as well as technologies that help safeguard national defence and security. We're showing innovative competitive R&D products that demonstrate strong technology capacities of Russian enterprises," said Alexander Mikheev, Rosoboronexport CEO.

He mentioned that the current year marked the 70th anniversary of the Russian military-technical cooperation system with the highest level of cooperation between Russia and Belarus.

Mr. Mikheev also noted "mutual trust and an unprecedented scale of industrial collaboration in the field of joint development and release of advanced products", related to both nations.

Photo: Ka-52 - photo credit ROE

Photo - Pantsir-S1 - photo credit Yury Laskin

Russia's exhibit included products from 17 manufacturers, most of them being the Rostec state corporation subsidiaries.

The core of the exposition was formed by the state-of-the-art mock-ups of the air force equipment, including the Su-35 multirole super-manoeuvrable fighter, the Il-76MD-90A military transport aircraft, the Mi-17V-5 military transport helicopter and the Mi-35M transport/attack helicopter, as well as upgraded versions of the Mi-28NE and Ka-52 attack helicopters.

The Ka-52 Combat Scout Attack Helicopter is designed for the destruction of tanks, armoured and non-armoured vehicles, the enemy's manpower and adversary helicopters in the front line or tactical depth. The helicopter provides transfer of target reconnaissance, target distribution and target designation data to interacted helicopters and command posts of ground forces.

Ka-52 has high combat survivability and combat power. It can be operated round-the-clock, has a wide range of aerial weapons and is the only helicopter in the world that is equipped with the ejection and shock absorbing system The vehicle has a normal takeoff weight of 10 400 kg, being capable of reaching a maximum speed of 300 km/h. Other features include a maximum climb rate of 16 m/s, service ceiling of 5500 m and hover ceiling of 3800m. The helicopter has a practical range of 460 km with the use of internal fuel tanks.

In the air defence segment, guests saw the systems developed and produced by Almaz-Antey Concern, in particular, the Viking surface-to-air missile (SAM) system. The system is capable of engaging tactical ballistic and cruise missiles, strategic, tactical and army aircraft, including those based on stealth technology, precision-guided weapons, unmanned aerial vehicles and helicopters.
The Viking can be integrated with a precision-guided weapon (PGW) protection systems such as the Tor short-range SAM system.

The Tor-M2KM SAM system is designed to repel strikes from a wide range of air weapons, including drones, at different altitudes. Its self-contained fighting module can be used in a fixed version to cover stationary facilities, and it can also be mounted on various chassis and platforms.

The Pantsir-S1 anti-aircraft gun/missile (SPAAGM) system from the High Precision Weapons Holding, which was on display in Minsk, is capable of engaging targets with missiles at ranges from 1200 m to 20 km and at altitudes from 15 m to 15 km, and also with guns, at ranges from 200 m to 4 km and altitudes up to 3 km.

The combat vehicle can operate independently and simultaneously engage four air targets.

The Russian exposition presented a large scale of weaponry including armoured, missile systems and smart weapons, as well as small arms and law-enforcement equipment.

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MAKING WAVES IN THE WORLD OF DRONES

Drone Tech founder Queen Ndlovu said the business started out as a manufacturing facility but has since moved on to the provision of drone services across many sectors

***World Airnews* editor Heidi Gibson spoke to the founder of a South African drone company making waves in the sector. Founder of Drone Tech Queen Ndlovu is breaking down barriers to give young people access to drone education.**

WAN: Can you tell us a bit about your beginnings? Where were you born? Where were you educated?

Queen: I am Queen Ndlovu. I was born in Soweto, Johannesburg but grew up in Pretoria under the guidance of my grandmother and my uncles, since my biological parents relocated to Botswana where my dad came from.

I had a great upbringing even though my parents were not with me. My mother took good care of me as I would fly to Botswana at a tender age to visit my parents during school holidays. I was blessed with a very smart and ambitious grandmother who was the first black female Principal in the Transvaal province (currently known as Gauteng). She would always remind me that the sky is the limit and I should be highly educated and follow my dreams. She would spoil me when I got A grades at school. On a lighter note, she was a lady of fashion and style and encouraged me to always look beautiful whenever I would attend events. At the same time, she would remind me to stay humble and reach out to people less fortunate than me.

This is what shaped my value system and inspired me to become a visionary and take bold calculated risks. As a young adult, I led a very active life playing tennis and taking dancing lessons - I am still a keen salsa dancer and often play golf.

I hold a Master's degree in entrepreneurship and degrees in psychology and education. Later in life, I decided to be a serial entrepreneur, hence my involvement in founding and co-founding various businesses such as the building of artisan colleges, offering management consulting and a laundry business.

WAN: How did you get involved or become exposed to the world of drones? When did you decide or decide to begin the QP Drone Tech company? Can you describe to our readers the moment when you turned your attention to drones?

Queen: Once I realised the South African market was becoming saturated with management consultants and training service providers, I decided to pursue a technology business. So, I took a sabbatical, resigned from my other businesses and enrolled in the Wits Business School for a master's degree in entrepreneurship.

Out of all the technologies I was exposed to, I chose drone technology and subsequently, I went to Shenzhen, China to learn about this in 2018. I was based there for six months.

WAN: Let's talk a bit about Drone Tech. How is it structured? What services and solutions do you provide?

Queen: The initial business model was building drones locally - that was what I learnt in China because besides the fact that it was revolutionary, it created instant job opportunities for young people and that is what I am passionate about.

But due to the challenges of the lack of securing capital, we decided to pivot the business to the provision of commercial drone services targeting industries such as mining, agriculture, renewable energy and clients with critical infrastructure assets.

Drone Tech provides turnkey solutions for drone services from design to support. We do site surveys, surveillance, mapping and various data collection using drones. We process this data to provide key business insights. We leverage robotics, big data and analytics to help our customers extract the best outcomes by using drone technology.

WAN: You have been active in providing labs for young drone enthusiasts. Can you tell me how you got involved in this type of outreach and provide an example of one such exercise?

Queen: Due to my training background, working with youth as the deputy president of the YMCA in Africa and my management consulting background, it was natural for us to add 4IR-related training to our scope. So, DroneTech is big on science, technology, engineering, art and maths (STEAM). WeRobotics chose us to be their Flying Labs partner in South Africa. We offer programmes to school-going children and unemployed youth such as gaming, 3D printing, virtual reality, and drones amongst others. The rationale behind this is to expose our beneficiaries to new, emerging technologies for career prospects.

We are a thought leader in disaster management with a focus on preparedness as part of our contribution to humanitarian aid.

In November we are hosting our second Drone Conference with the theme 'Incorporating Drones and Robotics into Disaster Management'. Thanks to our partners such as UNICEF South Africa, Santam, PWC -SA, Esrie and other government agencies such as the South Africa Civil Aviation Authority, the Innovation Hub and Western Cape Government for their support.

WAN: What is your vision for the company? Are you striving to become a player in the global market?

Queen: Our vision is to become a leading drone manufacturer in Africa, and to use our position to service clients globally.

We are passionate about the power of local and would like to cement our position as the leading thought leader in disaster management. Lastly, we want to assist in bridging the digital divide, by exposing and empowering youth with 4IR skills so that they enter the world of STEM, and play a meaningful role in the economy.

We would like to play a key role in terms of data analytics and big data. We understand that data is the new currency and collaboration is the innovation. We would therefore like to use data gathered by our drones to help organisations turn these into meaningful insights which foster innovation and add value to their business.

WAN; Do you have a plan for growth in the future? Can you briefly describe these to our readers?

Queen: Our growth strategy is focused on scaling our STEAM programmes, drone services and manufacturing. We would like to extend our service offerings into the African market and beyond. We believe that the power of drones can help solve many African problems. We are looking to empower other local communities in the rest of Africa in the education of drones and their services. The sky is the limit for us.

WAN: Lastly I wondered if you could comment on the lengthy process it takes to obtain a drone licence in SA as an ordinary operator. What needs to be done to streamline this process?

Queen: It is, indeed, a long process. But, perseverance is the mother of success. We need to acknowledge that this is aviation and thus safety and quality are of paramount importance. But sometimes these standards come as a bottleneck that makes this drone technology inaccessible to other new players - especially the younger generation. On the other hand, I want to commend the SACAA for encouraging healthy debates and their response to this.

WAN: Would you agree or disagree that the use of drones in Africa is a great opportunity as it solves our transport problems?

Queen: I am in full agreement with this thinking especially if one considers the air taxi concept where drones can carry passengers for tourism, deliver medical supplies and other logistics.

WAN: Do you have any words of encouragement for entrepreneurs or aspiring African drone enthusiasts?

For entrepreneurs, I always share three lessons. These are, firstly to show up. When you get invited to any learning opportunities that will expose you to your passion or leads you to prospects just attend those activities. It could be a conference, a webinar or a competition. It could be free, physical or online attendance. Secondly, raise your hand.

When you happen to learn about any volunteering work try to raise your hand to be noticed. Leave your mark and lastly, let your voice be heard. And by this, I mean, do not be shy to say or do something you are passionate about whether it involves you reposting other people's work as a start or writing a blog or being involved in a fruitful dialogue when such matters come to the fore. All of the above leads to learning, brand building and great networking.

Part of Drone Tech's vision is the provision of STEAM training in partnership with WeRobotics for school going children and unemployed people.

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WINGCOPTER SCALES UP

A €40 million Euros or (US) $43 million quasi-equity investment into Wingcopter GmbH has been made by The European Investment Bank.

Wingcopter was founded in 2017, in the German state of Hesse and their electrically powered unmanned aircraft are already delivering goods as part of several small-scale commercial and humanitarian projects.

In Africa, in Malawi, a joint project with UNICEF and Gesellschaft für Internationale Zusammenarbeit on behalf of the German Federal Ministry for Economic Cooperation and Development has seen Wingcopter's drones deliver life-saving medicines and medical supplies to rural communities in hard-to-reach areas.

The EIB investment is backed by the European Commission's Invest EU programme under its sustainable infrastructure window. Using electric cargo drones to deliver urgently needed goods can replace carbon-intensive modes of transport such as motorcycles, vans and helicopters, thereby contributing to the transition towards a green and sustainable economy.

The Wingcopter 198 is expected to be operated for the first time in Germany this summer when Wingcopter launches a pilot project in southern Hesse to test the potential of on-demand transport of groceries and other consumer goods. The project's goal is to improve local supply in rural German communities through a sustainable delivery service and will be conducted together with the Frankfurt University of Applied Sciences.

It is funded by the German Federal Ministry for Digital and Transport.

What makes Wingcopter's cargo drones truly unique is their ability to take off and land vertically while flying quickly and efficiently over long distances like an airplane without the need for expensive infrastructure.

They can carry up to 5kg and cover distances of up to 100 km. The core hardware and software are patented worldwide.

Already running on pure battery power, the Wingcopter team, together with Hamburg-based ZAL Centre of Applied Aeronautical Research GmbH, are currently developing a green hydrogen energy system to power Wingcopter's drones for even longer flight times.

The EIB's investment comes alongside existing funding from a strong international group of investors, including leading European retailer REWE Group, Japanese Fortune 100 conglomerate ITOCHU, Silicon Valley-based Xplorer Capital, and Uber co-founder Garrett Camp's investment arm Expa. Together, the investor commitments will enable Wingcopter to extend the capabilities of its flagship drone, obtain regulatory approval in key markets and deploy its drones at scale in sustainable last-mile delivery networks to become a global logistics services provider across multiple sectors.

"Backing European cleantech pioneers with global reach like Wingcopter is central to our mission. Electric cargo drones are an important vertical segment for a future of sustainable transport and logistics," said EIB vice-president Ambroise

Fayolle, who is responsible for activities in Germany. Meanwhile European Commissioner for Economy Paolo Gentiloni said, "This agreement is an excellent example of how InvestEU is helping businesses access the finance they need to innovate and expand."

Wingcopter co-founder and CEO Tom Plümmer said, "We would like to thank the European Investment Bank for their trust in us and their support. Our goal is also to improve lives by creating many jobs. It requires strong partners like the EIB to build reliable, efficient, and safe delivery drone technology and logistics services."

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ZIPLINE

FUTURE FORWARD DELIVERIES

Global drone delivery company - Zipline – which has a big presence in Africa – recently revealed its new platform that provides quiet, fast and precise autonomous delivery directly to homes in an urban and built-up city.

What is more the platform is practically silent (designed to sound like wind rustling leaves), and is expected to deliver up to seven times as fast as traditional automobile delivery. It hovers safely at about 300 feet or 90 metres in the sky.

Called Platform 2 or P2, Zipline has spent the last several years building and fine-tuning its offering.

When the Zip arrives at its destination, the fully autonomous delivery droid manoeuvres down a tether, steers to the correct location, and gently drops off its package to areas as small as a patio table or the front steps of a home.

This is all made possible through major innovations in aircraft and propeller design.

Some US businesses across the healthcare and restaurant sectors have already signed on to use Zipline's new home delivery service.

Sweetgreen is partnering with Zipline to further its mission of connecting people to real food in the US while moving a step closer to its pledge to be carbon-neutral by 2027.

By ordering through Zipline's marketplace, Sweetgreen customers can get their orders using 97% less energy than traditional automotive methods.

"The future of delivery is faster, more sustainable and creates broader access, all of which provides improved value for our customers," said Jonathan Neman, Co-Founder and CEO of Sweetgreen.

"We couldn't be more excited to work with Zipline to complement our delivery strategy. Zipline's sustainable technology and ability to reach customers quickly, with a great delivery experience, will help us give our customers what they want when they want it."

Michigan Medicine will use Zipline's new service to more than double the number of prescriptions it fills each year through its in-house pharmacy.

Intermountain Health will use it to deliver prescriptions to patients' homes in the Salt Lake City metro area.

MultiCare Health System plans to use the new platform to expedite diagnostics and deliver prescriptions and medical devices throughout MultiCare's network of facilities, including hospitals, laboratories and doctors' offices.

And Zipline's first customer, the Government of Rwanda, will use the company's new home delivery service to enable urban aerial last-mile delivery to homes, hotels and health facilities in Kigali and elsewhere in the country.

Zipline's end-to-end solution seamlessly integrates with a business's current operations. That includes its dual-use docking and charging hardware, software that easily works with third-party inventory management and ordering systems, an intuitive app that allows order tracking down to the second, and an autonomy system that has already guided the flight paths of 40 million commercial miles.

Zipline designed its docking and charging hardware to have a light footprint that can be attached to any building or set up as a freestanding structure.

A Zip can be easily loaded by a business employee who can send off orders in seconds, right from their location, without even having to leave the kitchen, pharmacy or doctor's office.

Businesses can offer Zipline's home delivery service in a variety of ways, including native integrations into apps and websites, white-labelled opportunities, and by joining Zipline's marketplace.

Customers can make on-demand orders, or schedule the exact time they'd like their package to arrive, down to the second.

Zipline package delivery

A MIXED SCORECARD

By *World Airnews* correspondent Roy Ezze

As the Nigerian government of Muhammadu Buhari comes to an end, aviation minister Hadi Sirika has applauded the sector's efforts in executing its aviation roadmap that included a controversial plan to offer concessions to some of the country's major airports.

He cited achievements including infrastructure development, the concession of airports, an increase to the nation's GDP and improved operating standards.

Meanwhile, Rabiu Hamisu, former Federal Airport Authority of Nigeria (FAAN) managing director, said that international passenger traffic had increased in 2021 and 2022, and 'by the end of 2023 the total international pax would have exceeded that of 2019'. He said he expected the total number of domestic passengers would have exceeded that of 2019 by about 50% - showing a significant recovery rate".

Against a background of aviation union protests about the proposed concession of airports in the country, the government recently revealed the name of the preferred bidder – as the Corporation American Airport Consortium. Two airports Nnamdi Azikiwe International Airport (NAIA), Abuja, and Mallam Aminu Kano International Airport (MAKIA), Kano, are to become privatised under a public-private partnership (PPP) agreement that was approved by Nigeria's Federal Executive Council (FEC).

The PPP for the NAIA airport is for a 20-year period and for MAKIA, 30 years and these would yield revenue to FAAN - currently responsible for the management of more than 27 airports in the country, sources said.

In terms of safety regulation and air navigation infrastructure development, the Nigerian Civil Aviation Authority (NCAA), led by Musa Nuhu, has surpassed the global average in the effective implementation of ICAO's safety standards.

It is interesting to note, Nigeria has maintained a zero-rated accident record for scheduled commercial airlines over the last eight years. The Nigerian Airspace Management Agency (NAMA) has improved its facilities, aligning with future Air Traffic Management (ATM) systems and aligning with facilities of other African Air Navigation Service Providers (ANSPs), which will support the unfolding Single African ATM Sky concept.

On the negative side, a proposed national carrier, which was part of Buhari's aviation roadmap, was not achieved.

This and the ongoing challenge of trapped airline funds have remained largely unresolved giving rise to growing anxiety about the country's aviation and related economic development in the region.

Nigerian chairman of the Air Cargo Development Committee set up by the government Ikechi Uko has called for the repositioning of Nigeria's cargo operations by developing Nigeria's agriculture and natural resources.

He warned that Nigeria "loses (US) $1bn annually because of the non-certification of agri-produce for export," and that 80% of cargo airlines fly out empty".

ZIM AIRPORT DEVELOPMENT PROJECT NEARS COMPLETION

By Wallace Mawire

The Robert Gabriel Mugabe International airport development project is nearing completion with the expected date to open doors to travellers this month Airports Company of Zimbabwe (ACZ), airports development manager Shamiso Makova recently facilitated a tour to appraise local media and other stakeholders on the airport expansion, upgrade and refurbishment project.

According to Makova, the project includes landside overall work and terminal upgrade.

On the airside, the project focused on runway civil works which have since been completed, aprons, airfield ground lighting, air navigation aids, satellite fire station development and work developments on water, stormwater and sewer reticulation.

Felix Mhona, minister of transport and infrastructural development at the recent launch of the Eswatini Air service to Harare said, "This RG Mugabe International airport rehabilitation, to be complete by June this year.

Four kilometres of road constructed takes you four kilometres, but four kilometres of a runway connects you to the world, hence our drive to develop airport infrastructure."

The (US) $153 million project received funding from the China Export-Import Bank and is expected to increase the airport's holding capacity to six million people per annum from 2,5 million.

ANGOLA SIGNS OPEN SKIES

By *World Airnews* correspondent Romuald Ngueyap

April 2023 was a particularly eventful month for Angola's civil aviation sector. On the sidelines of his visit to the United States, Angolan transport minister Ricardo Viegas D'Abreu and his American counterpart, Pete Buttigieg, signed an agreement called "Open Sky" on 26 April.

This will pave the way for the establishment of a direct air link between Luanda and the United States.

According to the agreement, TAAG Angola Airlines, a national carrier, could soon launch flights to the United States.

"A huge opportunity is open not only for the country, but also for Angola's new Dr Agostinho Neto International Airport in Luanda, which will be inaugurated this year, and will allow connectivity to a new market, offering new destinations to customers of TAAG, the country's flagship carrier. More news to come. Stay tuned," said the CEO of Angola's national airline, Eduardo Fairen Soria.

In the Americas, TAAG currently only serves Havana in Cuba (once a week) and Sao Paolo in Brazil (four weekly flights).

In addition to the agreement, the two sides also agreed to strengthen co-operation in the overall improvement of logistics and national transport systems in Angola, with an emphasis on training young Angolan aviation professionals, D'Abreu said.

In a parallel development, Angola acted, during the Council of Ministers on April 26, 2023, its accession to the Single African Air Transport Market (SAATM).

This accession will "contribute to the liberalisation of access to the air transport market on the African continent, with benefits for States, namely the opening of new routes, greater frequency of flights, better routes and lower prices, among others, allowing greater regional integration and the transformation of Angola into a regional centre", according to a communication from the Angolan Ministry of Transport.

According to a continental study, cited by the African Civil Aviation Commission (AFCAC), the implementation of the SAATM - an initiative officially launched on 29 January 2018 in Addis Ababa, Ethiopia - will generate (US) $4.2 billion in additional GDP overall for African countries, as well as 596,000 new jobs, and will result in a 27% reduction in aircraft, and will contribute to the achievement of the United Nations Sustainable Development Goals.

By the end of 2022, 35 countries had signed up to the SAATM policy and committed to implement it unconditionally. A 21 total African states have signed the memorandum of understanding.

This represents a market of more than 750 million inhabitants, or about 61% of the continent's population.

The SAATM Implementation Pilot Project (PIP) was launched and agreed to by 17 states of the continent namely: Cape Verde, Côte d'Ivoire, Cameroon, Ethiopia, Gabon, Ghana, Kenya, Morocco, Mozambique, Namibia, Nigeria, Niger, Rwanda, Senegal, South Africa, Togo and Zambia on 14 November 2022, in Dakar, Senegal.

MADAGASCAR AIRPORTS MANAGER INCENTIVE SCHEME

By *World Airnews* correspondent Romuald Ngueyap

Madagascar airports manager of Antananarivo and Nosy be, Ravinala Airports (the concession company) has launched an incentive programme for "new routes" that will reward airlines that will open new services.

The scheme has emerged in the context of the global rebound of air traffic, on the back of the COVID-19 pandemic, and to improve the connectivity of the international airports in this African island country.

Airlines that have opened or will open new international or regional routes (Africa and Indian Ocean: Mauritius, Reunion, Seychelles, Mayotte, Comoros) to and from the international airports of Antananarivo and Nosy be, between January 1 and December 31, 2023, will now be able to benefit from financial rewards, paid by Ravinala Airports.

The outline for this 'new routes' incentive programme, published on April 23, includes several criteria for airlines to benefit. These include the following: the new route(s) must not have been operated between 1 January 2018 and 31 December 2022; they must be operated non-stop to the new destination with an aircraft with a minimum capacity of 90 seats, for a minimum of 60 flights per year (over a period of 12 months from the first flight).

A second criterion includes, that the operator claiming these benefits must not have debts due by more than three months with Ravinala Airports, and this is for the entire duration of the incentive programme "new routes" (any exceptions must be agreed by the manager based on a commitment to pay the debts due).

Finally, the company serving from Antananarivo or Nosy be, must bring an additional passenger gain to the manager, compared to its passenger traffic for the year 2022.

Once these non-exhaustive conditions are met, the carrier is rewarded according to certain conditions. For regional routes, it could receive, per passenger departing from Madagascar, 10 euros the first year, 4 euros the second year and 1.5 euros the third year. For international corridors, it is 20 euros the first year, 11.5 euros the second and 6.5 euros the third.

Operators will also receive bonuses if they allocate a budget to the promotion and marketing of the new route, and fly at least 80% of their flights with 'next generation aircraft such as (Airbus A350, A330neo, A32Xneo, A220, Boeing 787, B777X, B737X Max and Embraer 195 E-2).

For example, an airline X that begins flights between Europe and Antananarivo on April 1, 2023, and carries 25,000 passengers per year with an A330ceo aircraft could receive up to €570,000 rebate after the first year of operations. The alignment of a more modern aircraft, such as the A330neo, for example, in the second year, will allow it to earn €374,000 in rebate the second year and €195,000 euros in the third year. A total of €1.15 million in savings after three years of operation on the capital's platform.

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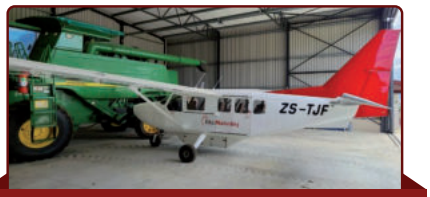

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WELCOME BACK SWARTKOPS!!!

By Pieter Cronje Photos by Pieter Cronje

After an interval of more than 40 months, the South African Air Force Museum airshow took place last month on 5 and 6 May at the South African Airforce Mobile Deployment Unit (previously known as the Airforce Base Swartkops)

Chief of the Airforce, Lieutenant-General Wiseman Mbambo opened the airshow.

With a combination of exhibitions, static displays, and performances, the Air Force's current and heritage aircraft were showcased in a unique way.In the weeks before the event, there was a buzz of excitement and anticipation. At last, Swartkops was on the calendar again.

The next day, the airshow opened to the general public. When I arrived at Swartkops at 5 am, there were already cars in queue at the public parking area. The day started a little cool, but still a lot warmer than usual.

Some clouds in the air to the east mitigated the harsh sunny conditions that are always prevalent at Swartkops in the mornings.

The cloudy conditions continued for the day and made for interesting lighting conditions in the afternoon and early evening. The airshow began with some early morning arrivals. The arrival of motorised paragliders marked the start of official proceedings.

The event was opened by the SA Airforce Chief Lieutenant-General Wiseman Mbambo.

Participants included the usual mix between civil, and military planes and pilots, all getting a large amount of support from the crowd that often 'ooooooooed' and 'aaaaaaahhed' all the time.

The high-energy aerobatic displays and the SAAF Hawk, BKK117, Rooivalk, and Gripen again tested everyone's neck, back muscles, and senses.

It was very obvious the crowds adored the displays that included flares as a large number gathered for the last display of the day - a Gripen with flares.

Other aircraft on static display included the P51 Mustang, Shackelton, a C160 Transall, Puma helicopter, Alouette II, Alouette III, Mirage III, and the Mirage F1.

Air Force Base Swartkop, (ICAO – FASK) is South Africa's oldest air force base and is home to the South African Air Force Museum. AFB Swartkop is located in the town of Centurion, Gauteng, which is part of the city of Tshwane.

The Museum air show is a major and essential fundraiser for the three-museum alliance responsible for South Africa's military aviation history. This includes maintaining vintage aircraft - where possible - in an airworthy or display condition at museum headquarters (AFB Swartkop) and its Eastern Cape (AFB Gqeberha) and Cape Town (AFB Ysterplaat) branches.

The museums are not considered operational units and receive only limited financial support from the SAAF defence budget allocation, making the air show and the funding it provides integral to their continued existence.

All three museums are manned by a limited number of full-time SAAF personnel, supported by Air Force Reserves and active friends' communities.

A combover. The Rooivalk late afternoon display with an interesting flare display.

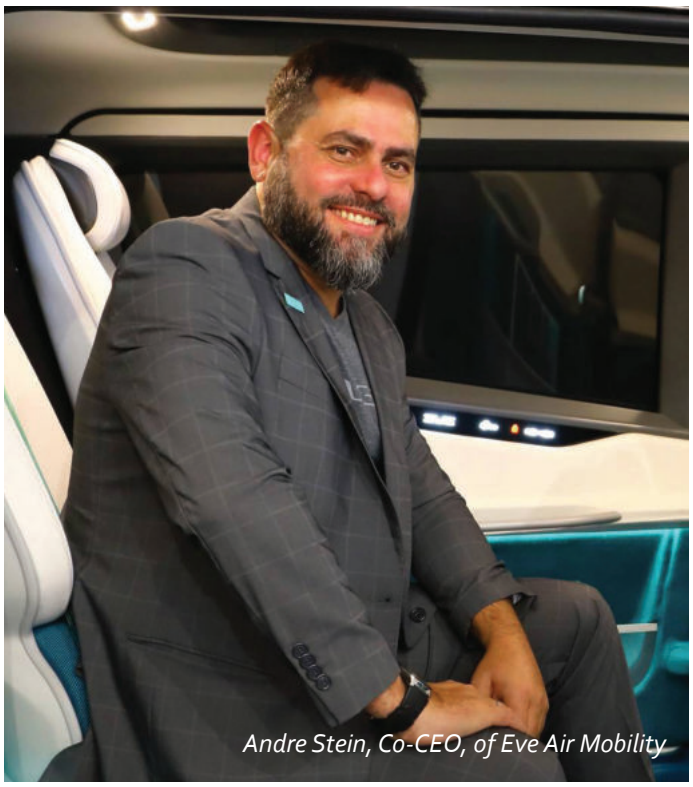
A Rooivalk attack helicopter "glared" at the crowd.

André Coetzee in his Magni Gyro.

RE-IMAGING **MOBILITY**

With the largest order book in the industry, Eve Air Mobility looks set to take the electric vertical take-off and land aviation sector by storm. *World Airnews* editor Heidi Gibson spoke to Andre Stein, CO-CEO, of Eve Air Mobility.

WAN: Thank you for agreeing to answer a few questions about the Eve Air Mobility project. So Eve is the first company to graduate out of the EmbraerX programme, can I just ask you - why is this so important and what does it mean for the future of Eve?



Andre Stein, Co-CEO, of Eve Air Mobility

AS: Benefitting from a start-up mindset and backed by Embraer's more than 50-year history of aerospace expertise, Eve is taking a holistic approach to progressing a highly scalable Urban Air Mobility (UAM) ecosystem.

Eve is the first company to graduate from Embraer-X, an organisation fully dedicated to developing disruptive businesses, which unveiled the first iteration of its eVTOL solution in May 2018.

As an independent company, Eve has the resources, agility, and autonomy to pursue innovative business models and will be able to serve as a protagonist in shaping the UAM market that is in its early stages.

Eve's strategic relationship with Embraer is a key competitive advantage. The partnership includes access to thousands of skilled employees on a flexible, priority basis and use of Embraer's global infrastructure, under the terms of certain services agreements between the two companies.

The strategic alignment with Embraer also provides Eve with important cost and execution advantages as it seeks to scale its UAM solution globally.

WAN. An exciting event was when Eve was listed on the NYSE. Again, when did that happen and what does it mean for the company?

AS: As a separate and independent company, Eve has been listed on the New York Stock Exchange since May 2022 as NYSE: EVEX; EVEXW. Becoming a publicly traded company was a key enabler of our mission to become a leading player in a potential (US) $760 billion UAM addressable market.

Eve is uniquely positioned to develop, build, certify, and commercialise UAM solutions on a global scale.

WAN. Can you give our readers a basic update on where the Eve project stands at present?

AS: Today, Eve continues to develop its eVTOL aircraft as it works toward key engineering milestones. Additionally, Eve has been developing a suite of products and agnostic services including Urban ATM (air traffic management) software solutions.

From before take-off to after landing, the urban environment will count on integrated systems, services, and technologies being developed by Eve to enable a safe, efficient, and predictable ecosystem to support eVTOL operations alongside many other airspace users. In the future, the advancement of infrastructure and regulation will rely on these network management services to enable autonomous flight, with no pilot on board.

Today, Eve has the largest order book in the industry with 2,770 aircraft.

WAN. Have you reached certification with the Brazilian aviation authority? And if not, what is holding the project back?

AS: We formalised the process for obtaining a Type Certificate for our eVTOL with ANAC in February last year. It's an important milestone toward certification. We are progressing with the development of our aircraft, but there are still several steps before certification. We are targeting 2026 for entry into service.

WAN: Now can you tell us about the design and function of Eve? Which sector of the UAM market are you focused on?

AS: Our goal is not only to lead the evolution of mobility but also to help accelerate the world's transition to sustainable air travel while giving communities access to the sky like never before. We believe that helping people get where they need to be quicker and more efficient changes everything.

By connecting our engineering and technology expertise with a human-centred design approach, we are creating new and more enjoyable ways of getting from point A to point B. Our goal is to replace the stress of sitting in traffic on the ground with quick and efficient travel in the air - for everyone.

Put simply, Eve is working to transform the way you can commute and travel around cities.

WAN. Can you briefly describe how Eve will fly, and what the range, speed, and weight will be?

AS. Our eVTOL is 100% electric and its human-centrered design ensures the safety, accessibility, and comfort of passengers, the pilot, and the community by minimising noise. It will be piloted at launch but we believe in autonomous operations in the future when regulations and infrastructure permit. Among the most attention-grabbing features are its eight rotors. The reason for this is simple and fundamental: safety.

Multiple rotors make our eVTOL more robust and capable of handling a variety of conditions.

Another important performance feature of the vehicle is its lift + cruise configuration: the aircraft has dedicated rotors for vertical flight and fixed wings to fly on a cruise, with no components required to change position during flight.

Combining conventional fixed wings with rotors and pushers allows a practical and intuitive lift + cruise design, which favours safety, efficiency, reliability, and certifiability.

With a range of 60 miles (100 km), our eVTOL offers a sustainable commute and reduced noise footprint, with substantial noise reduction (up to 90% lower noise compared to conventional helicopters) during the cruise.

WAN: I understand that you have conducted simulations with conventional helicopters to test potential applications - the

Blade India project and two weeks of flight simulations in the Chicago and Rio de Janeiro areas. What were your key learning areas from this?

AS: That's correct. The company has conducted several simulations to study operations, ground services, passenger journeys, and eVTOL operator needs, creating more accessible and faster connections to key city locations.

Another goal was to help cities gain knowledge about the infrastructure and ecosystem needed to enable the launch and expected long-term growth of UAM in the area.

It is essential to understand and address through these projects involving partners and the community the key challenges associated with the main pillars of the UAM ecosystem. We worked to bring together all relevant stakeholders to provide feedback so that we can structure and deliver the best solutions.

WAN. How far are you regarding the selection of industrial and development partners for critical technologies and components such as battery, propulsion, avionics, and manufacturing and when do you expect to conclude this part of the process?

AS. We are progressing with the development of our eVTOL. We will certainly share the news with you when complete.

WAN. Can you estimate when is it likely that Eve will be ready to go to market?

AS. Eve is currently targeting 2026 for first deliveries and entry into service.

WAN. Some of your partners are also investors in Eve - how does this benefit the project? Can you name one and provide an example that clearly illustrates this relationship?

AS. I would refer you to our announcement related to United Airlines in September 2022. This is a great example of how we are working with strategic partners. Link: https://eveairmobility.com/united-invests-another-15-million-in-electric-flying-taxi-market-with-eve/

WAN. And lastly, what sets Eve apart from the other contenders in the eVTOL sector - which is growing and diversifying all the time?

AS. Several differentiators set Eve apart from the competition ranging from being a publicly traded company, its strategic relationship with Embraer, the world's third-largest aircraft manufacturer, our team's understanding of how to design, build, certify, and launch aircraft, a strong service and support network, technology/R&D and our employees.

Also, our holistic approach to the UAM market beyond just building and flying an eVTOL has proven to be a strong factor in helping us achieve the largest order book in the industry. From services to Urban ATM software solutions to our eVTOL, we're excited about the future of this industry and market.

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THE ELDERS FLIGHT

Karl Jensen arrives at the Elders Flight

The location for this year's Elders Flight - an initiative to get hundreds of elderly and military veterans in the sky - was Brakpan Airfield, Gauteng, South Africa.

This followed the first Elders Flight at the Rand Airport in November 2018 and a second in November 2019 before the Covid-19 pandemic.

The third edition saw approximately 300 underprivileged elderly people and military veterans fly - for the first time. In comparison, the 2019 Elders Flight flew just over 100 elders.

Around 90 pilots flew into Brakpan. One of the highlights was Menno Parsons taking up retired Lieutenant Piet Visser in his P-51 Mustang ('Mustang Sally') – 70 years after he flew the type in the Korean War.

Other highlights included a display by the Flying Lions in their Puma Energy Harvards, Menno Parsons' UH-1 Huey, and Captain Richardt Lovett's L-39.

The South African Air Force (SAAF) was one of the participants, bringing an A109 helicopter to the event. Former Chief, retired Lieutenant General Fabian 'Zakes' Msimang, donned his flying suit and took to the skies.

Major General Lancelot Mathebula, Chief Director Force Preparation of the South African Air Force, gave a speech to the hundreds of people gathered for the event and told those present the SAAF was honoured to be invited and to assist with the Elders Flight 2023.

Elders, he said, had laid the foundation for the next generation of pilots that are present today.

The Elders Flight 2023 organisers attracted around 60 sponsors that provided everything from high-visibility jackets to food, fuel and ablution facilities. Volunteers provided aircraft, pilots, fuel and transport, amongst others while the Jeppe's Boy High played the bagpipes.

One of the organisers Felix Gosher is also the organiser behind the annual Childrens Flight in South Africa , which takes underprivileged children up in aircraft for the first time. This year's edition is scheduled for September.

Media photographers getting a view of the Auster

LIBYA AVIATION FORUM AND EXPO

Organisers of the Libya Aviation Forum and Expo that took place at the Corinthia Hotel, Tripoli are busy with preparations for the second one.

Hormuz Tours and Event spokesperson Adel Ben Elhaj said previously major aviation-related corporates from Algeria, Malta, Denmark, Estonia, Tunisia and Lithuania took part and this year even more are anticipated.

Government bodies were present along with the ministry of transport, the Libyan Civil Aviation and the Airport Authority.

Speakers from the private and public sector discussed the current status of the commercial aviation and gave suggestions for development and progress.

The Libyan Insurance Company was a major sponsor and contributor to the speaker session.

Speakers from the USA and South Africa were in attendance and presented analysis and blueprints for reviving the sector. South African aviation and IT executive management professional from Roberts Tribe consulting and Flight Deck Consulting (Netherlands) James Leon Roberts said he had presented on the airport eco-system and crew management systems(human factors) and was considering attending again this year.

"The Libyan commercial aviation sector is trying to progress and there are a lot of opportunities despite the challenges," he said.

ABOUT THE EVENT

The Second Edition of Aviation forum and Expo in Libya will place a spotlight on the civil aviation sector. The country's sector goes back to 1953 when it was founded.

Libyan airways or formally known as the Libyan Arab Airlines was founded in 1964.

Libya has another publicly owned carrier, the Afriqiyah which was established in 2001. All publicly owned carriers are under the Libyan African Aviation Holding Company, which was established in 2007.

The Tripoli international airport sustained massive damage during 2014 and currently Mitiga international is the main hub for most national carriers. Other active airports are Misurata International Airport and Benina international in Benghazi, with other locally active in Sebha and Zintan.

"Our event will take place from the 6th to the 8th of November, 2023 Tripoli with an early birdregistration discount," said Ben Elhaj.

CHANGING THE NARRATIVE

It is time to redefine the narrative of Africa's air transport industry to that of interconnectedness, affordability, profitability, efficiency, and sustainability.

This was the impetus of the 11th AFRAA Stakeholders Convention, held in Addis Ababa, Ethiopia last month under the theme 'Changing the African Aviation Narrative'.

The African Airlines Association, also known as AFRAA, is a trade association of airlines from the member states of the African Union (AU). Founded in Accra, Ghana, in April 1968, and headquartered in Nairobi, Kenya, AFRAA's mission is to promote, serve African Airlines and champion Africa's aviation industry.

Last month's event was held under the patronage of the government of the federal republic of Ethiopia and was attended by two Ethiopian ministers - tourism minister Nasise Chali and guest of honour, minister of transport and logistics Alemu Sime.

AFRAA secretary general Abdérahmane Berthé said that the industry needed to contemplate and find lasting solutions with serious consideration.

"Critical among the challenges facing our industry is sustainability. Only 10% of African citizens can afford air transport, meaning there is a huge room for growth. Reducing the cost of operation, co-operation among airlines, partnerships, and consolidation are part of AFRAA's initiatives and advocacy to make air transport affordable for Africans."

A total of 31 African airlines attended, of which 14 were represented at the CEO level. Overall, the event was attended by 455 participants from 42 countries.

The following key subjects were discussed namely; pillars for African aviation sustainability, a roadmap to fast-track the implementation of SAATM, enhancing cargo operations, e-commerce networks, and logistics and tracking Abuja's safety targets for Africa.

Three masterclass secessions took place where cutting-edge ideas, industry best practices, new opportunities, and practical solutions were presented and discussed. The topics included the journey towards more efficient and sustainable flights by SITA, the digital twin by Star Navigation, and showcasing AFRAA's data intelligence tool and AviAnalysis solution.

The meeting of the Air Transport sustainability steering committee took place and stakeholders discussed fuel and custom taxes, high taxes and charges, navigating free routing airspace, the implementation of the Single Air Transport Market (SAATM), and partnerships between airlines and tourism bodies to improve intra-African Tourism.

Some of the following key achievements were noted;

1. The development of a new model of sharing critical infrastructure to reduce investment costs, a data gathering process has been launched in the field of technology used by Air Navigation Service providers (ANSPs), procurement, and investment practices. This will be used for comparison and best practices to guide all the ANSPs.
2. Regarding the FRA progress, two member airlines volunteered to participate in a total of five city pairs in the FRA trials. FRA implementation on these routes is estimated to avoid burning 3,200 metric tons of fuel, emitting 10,100 metric tons of CO^2, and yield savings of (US) $ 2,784,000 annually. The FRA trials are planned to start this year.
3. On SAATM, a total of 20 states committed to the Pilot Implementation Programme (PIP) in April this year. For each of the states lined up for the PIP roadshows, states are being engaged to sign MoUs to carry out the gap analysis of the BASAs.

After the conclusion of the Convention, AFRAA, in collaboration with Ethiopian Airlines and Collins Aerospace, staged a one-day youth event aimed at empowering and motivating the next generation of aviators at the Ethiopian Aviation University.

A total of 130 high school students from 10 schools in Ethiopia benefited from the initiative, which is aimed at supporting youth development in aviation.

A total of 21 aviation-related companies showcased their products and solutions through an exhibition at the Convention.

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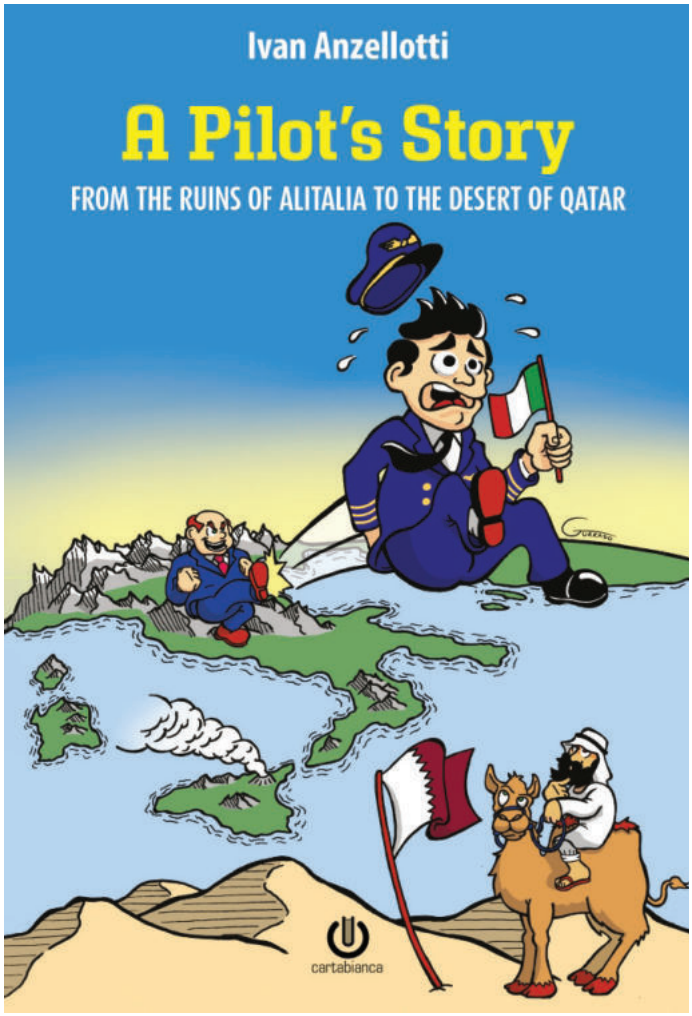
A PILOT'S STORY FROM THE RUINS OF ALITALIA TO THE DESERT OF QATAR



Cartabianca Publishing is pleased to announce its latest aviation book, which for the first time in its history is also available as 'Print On Demand' on Amazon stores worldwide.

The story begins – with Ivan Anzellotti, a young Italian airline pilot with many years of flying experience, recounting in a light-hearted and ironic way his years with Alitalia up to the crisis of 2008 and his subsequent move to an airline in Qatar.

In the first chapters, he describes his experiences, feelings, and fears during the long days when thousands of people lost their jobs at Italy's national airline.

But he was one of the lucky ones: After a few months, he found another job and started flying again, albeit far from home and in a completely different and less welcoming environment.

Between adventures in the desert dunes and training sessions with Libyan and Saudi colleagues, Ivan introduces us to a reality that is much more challenging and complex than it seems.

An authentic and often sarcastic story, but one in which the author's passion for his work and deep respect for those who still strive not to abandon safety and give due importance to the human factor in aviation is never missing.

A Pilot's Story – From the Ruins of Alitalia to the Desert of Qatar is now available at the price of € 16,00 as a 178-page print-on-demand book on any Amazon store and as an ebook in 3 different formats (Apple, Amazon Kindle, and "universal" ePub) at the basic price of € 7,99 directly in the Cartabianca Publishing online store: To obtain your copy click here : https://www.cartabianca.com/catalogo/a-pilots-story/
It is also available online through all the major retailers and distributors.

The Author: Ivan Anzellotti (1974), a former Guardia di Finanza pilot on Piaggio P166 DL3, became a pilot for Alitalia in 2000. With the company's crisis in 2008, he left Italy and went first to the Middle East and Lisbon, where he worked on Airbus A320 aircraft, and then to Asia, where he also flew Boeing 747 aircraft for two years. He finally returned to Europe in 2020. This book is his first work describing his misadventures in aviation. He recounted the rest of his adventures in "Storia di un pilota 2. Dalle low cost alla conquista dell'Est". He has also published a detective novel set in the world of aviation, "Il destino degli altri" (Phasar Edizioni). He is very active on social media, where he likes to share and explain the profession of a pilot

The Publisher: Cartabianca Publishing is a small publishing company based in Bologna (Italy) with a growing number of aviation titles in its catalogue.

AirStudent co-founders and partners from left Brian Kitchin, Ndabenhle Ntshangase, and Lwanda Shabalala.

A SOUTH AFRICAN **ONLINE BOOKING PLATFORM**

The biggest trend – and opportunity – in the travel industry today is the rise of the so-called New Age Traveller, who is driving growing change by disrupting traditional ways of searching for, buying and using travel services.

The industry is seeing a wave of new entrants using technology smartly to make tourism more inclusive, travel cheaper, helping more people to explore the world in new ways, said Ndabenhle Ntshangase, co-founder and chief executive officer of a startup company called AirStudent.

Ntshangase and his co-founder Lwanda Shabalala finalised the concept of AirStudent in a university dorm room with the aim of enhancing the student travel experience. By pooling students into larger groups, they found they were able to negotiate preferential deals with airlines to enable more affordable travel and a better overall experience.

They were later joined by Brian Kitchen who has come on board as chief business officer.

"By using technology to make tourism more inclusive and travel cheaper, we're making it possible for more people to explore the world in a whole new way and reach for their dreams. And that's the real change that we want to see - not only in the travel and tourism industry, but the world," he said.

The online booking platform is now open all travellers – and that's not just a win for cash-strapped travellers themselves. It's also a boon for airlines and travel agents, for whom distribution remains one of their biggest costs and headaches.

But Ntshangase said, it's important to remember that New Age travellers aren't just youngsters, increasingly, they're small businesspeople, the ordinary person in the street including government groups looking for ways to travel cheaply, while still having a good customer experience.

"The cost of travel is just one of many barriers that South Africans face. If you live in KZN, but study in Cape Town, travel is an expense that takes away from other areas where you could spend. Or worse, it blocks the opportunity to study at all. If we can use technology to break down barriers, we can create opportunities and experiences that go way beyond buying the cheapest flight or bus ticket that you can find," said Ntshangase.

Blacky Komani, Chairman of the TBCSA, said online platforms were fast becoming the norm for booking travel. By connecting travellers with service providers, these platforms make it possible for small businesses and start-ups to reach wider audiences and to compete with larger, more established players.

"When everybody in the industry has access to the same technology, what sets you apart is how you meet the needs of your customers, and the type of experience you can provide to them," said Komani.

Shabalala said, "For these travellers, social media and peer pressure significantly influence their travel decisions. They look for fast responses and instant gratification. They're not brand loyal: they want the best price. To understand and service this market, we must lean heavily on technology, which will open up access to the tourism industry even more," he said.

AirStudent is an online booking platform that anyone can access to book flights, car hire and accommodation.

For more information go to: www.airstudent.co.za

CELEBRATING 60 FALCON YEARS

Charles Lindbergh's visit May 4, 1963

Rene Bigand test pilot

The first inaugural flight that took place at Dassault's Mérignac final assembly flight

"For an aircraft to fly well, it must be beautiful," Marcel Dassault famously said.

Already well known for the sleek Mirage fighters, Dassault - the man and the company - proved the adage once again on May 4, 1963, with the first flight of the Mystère 20, the company's first business jet. With an eye toward the sizable American market, the Mystère 20 would soon be rebranded the Falcon 20.

Sixty years and more than 2,700 business jets later, Dassault Aviation continues the tradition of building beautiful, advanced-technology aircraft.

"The formula has not changed," said Dassault Aviation chairman and CEO Eric Trappier.

"Every Dassault aircraft must have superb handling, beautiful lines, and rugged construction. And, of course, it has to provide state-of-the-art comfort."

Back then, the Falcon 20 wowed some of the top aviation leaders of the time, including Charles Lindbergh, Pan Am chief executive Juan Trippe, and FedEx founder Fred Smith. It went on to spawn 27 different model types that found eager buyers among entrepreneurs, government agencies, and several nations' armed forces.

Its pioneering safety features, including the use of rugged fighter structures and systems, set the standard for countless future safety improvements, from head-up cockpit displays to digital flight controls - technology that subsequently became widespread across the industry.

THE FIRST DASSAULT BUSINESS JET TAKES OFF

Recalling the inaugural flight that occurred just after 5pm on May 4, 1963, test pilots René Bigand and Jean Dilliare 'gave it the gas'.

The flight occurred late in the day because Charles Lindbergh, dropped by to inspect the new business jet on behalf of Pan Am. It was only after he had departed that the team at Dassault's Mérignac final assembly plant, near Bordeaux, readied the aircraft for flight.

Lindbergh reportedly wired Pan Am CEO Juan Trippe, 'I've found our bird'. The airline promptly ordered 40 units with an option for 120 more and established Pan Am Business Jets to run its executive jet operations.

The new entity later evolved into Dassault Falcon Jet (DFJ), a fully owned Dassault Aviation affiliate. Headquartered in Teterboro, New Jersey, DFJ is responsible for representing and supporting Falcons in the US and elsewhere in the Western Hemisphere.

MORE ORDERS

In 1973, Fred Smith launched FedEx with a fleet of 33 Falcon 20s modified with a large cargo door, helping set that company on the road to success. In the 1980s, the US Coast Guard ordered 41 Falcon 20s (designated the HU-25) modified for search and rescue. In all, Dassault went on to build nearly 500 20-series aircraft.

Mystere first flight – May 4, 1963

A HISTORY OF CONTINUOUS ADVANCES

In the years following, the company introduced a series of aircraft models widely considered by pilots to be among the best business jets to fly. Currently, more than 2,100 Falcons are operating in over 90 countries around the world.

The best-selling model has been the Falcon 2000, a highly economical, super-efficient twin that has been continuously updated to remain at the top of its class. Nearly 700 have been delivered so far.

The second-best seller has been the workhorse Falcon 900, which has also gone through numerous iterations. To date, more than 550 of these aircraft have been delivered, including two that were recently handed over to the Royal Air Force for VIP transportation service.

Also popular has been the fly-by-wire Falcon 7X/8X line. Some 400 of these ultra-efficient, versatile, very long-range models have come off the assembly line.

"Sixty years on, Falcons are still completely distinctive in the business jet world: beautiful, delightful to fly, and always on the leading edge of technology, bringing safety, comfort, and productivity benefits to operators around the globe," said Trappier.

Falcon 1965

AVIATION **ACADEMY** IN CAPE VERDE

A global aviation education company Airways Aviation Group recently signed a memorandum of understanding in the West African island nation of Cape Verde with the aim to start a new aviation academy in the country.

The establishment of an aviation academy would support the government's strategic vision for the aviation sector.

It is envisaged that the country's Technical University of the Atlantic (UTA) would assist to establish an Institute of Aeronautics and Tourism.

During the visit several meetings and discussions with stakeholders were held, such as the minister of defence, Janine Lelis, minister of tourism and transportation, Carlos Santos, minister of education, Amadeu Cruz and their respective staff; CEO of TACV – Cabo Verde Airlines, Sara Pires; rector of UTA, Joao do Monte Duarte; board of ASA (airports and air traffic control), led by Jorge Benchimol Duarte and the board of AAC, the national aviation authority represented by Carlos Rodrigues and Seila Pires.

It is hoped that this visit will lead to the opening of a new Aviation Academy in the country that will provide the local market with a vast portfolio of courses but also the regional market.

All of the training capacity of Airways Aviation from ground handling to maintenance, technicians, cabin crew to pilot training, will be available.

Alexandre Alves, Airways Aviation COO and CCO, said, "The expansion to Africa is a key part of the Airways Aviation Group strategy. It began in January this year with the opening of Senegal, Morocco in the next couple of months and now also with Cape Verde. We consider Cape Verde as an essential part of our strategy. The country represents much more than what the size of its domestic market shows at first. We want to be considered a partner of all stakeholders, public and private, civilian and military in a way that we can put at service our experience of over 35 years and our vast network which presents a co-ordinated training offer. We believe that we can start our first courses in the next couple of months in Sal, Sao Vicente and Praia."

HONGYUAN GROUP LIVERY

This Airbus A330-243(P2F) was rolled out of the Aviation Cosmetics hangar last month looking stunningly beautiful in this Air Belgium / Hongyuan Group livery.

The widebody freighter carrying the registration OE-LAJ positioned to Brussels later in the day as ABB320P.

Hongyuan Group, headquartered within the airport economic area of Beijing International Airport took over an additional 7.7% shareholding in Air Belgium in early 2022.

This has resulted in the latter company now owning 49% of AB. The 7.7% additional shareholding was previously held by Hong Kong-based Aviation Investment Holding.

Photo credit - Mario Caruana / MAviO News

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SAFETY AND SUSTAINABILITY

Safety and sustainability may seem like separate topics, but in fact, experts say they're increasingly interrelated.

"Safety and sustainability are getting a lot of attention now. Sustainability is basically where we were with safety in the 1990s," said Darryl Young, director of international trip planning at AEG Fuels.

"Then, we didn't think there would be much regulatory or other impact on Part 91 operations regarding safety." Much like earlier perspectives on safety, some people only see the costs associated with sustainability or, consider it a political issue.

"Sustainability is a similar story that safety was back then. No one wants to increase their costs, but we need to show the value of the flight department," Young said.

Motivation to support sustainability often comes from leadership, which could feel pressure to move quickly, but it's important to assess the risk from change, said Stewart D'Leon, CAM, NBAA director of environmental and technical operations.

"Sustainability efforts should trigger your SMS risk assessment and change management processes."

Small operational changes can have a big impact on sustainability and can result in increased efficiency, a win-win situation. Consider reviewing policies around flight planning standards, such as cruise speeds and levels, optimising for fuel burn versus time enroute.

Create an APU use policy before and after flights. Before making changes, consider the safety impacts and conduct a risk assessment, said Bas de Bruijn, a NBAA member of the environmental subcommittee.

Purchasing sustainable aviation fuel (SAF) is one completely safe step towards making a flight department sustainable. SMS risk analysis processes can demonstrate the safety of SAF.

Erik Dagley, also a NBAA member of the environmental subcommittee, ran a detailed risk assessment for his organisation about future technologies, products and processes.

Dagley considered the enterprise level and operations level, with operations split into flight and ground functions.

His efforts uncovered very few risks to adopting sustainability efforts.

At the enterprise level, the only risks are financial – that is, additional expenses. For operations, one example he identified is a pilot being forced to fly into an airport with SAF to meet sustainability goals but the airport is unfamiliar or atypically large.

"Even that isn't a considerable risk," said Dagley. "I went so far as to ask if we are introducing products to the aircraft cabin that introduce new risk to the waste system or aircraft interior. After that level of review, I could not come up with anything that would have any impact on safety."

Dagley acknowledges ground operations are a little different. For example, utilising an electric tug without a robust enough electrical system could create risks.

"The only real effect of any tangible initiative currently available in the short term is just money," said Dagley.

"So much of aviation is already highly regulated, including new technology, that risk mitigation has already happened prior to getting to you."

Overall, most sustainability initiatives have - at worst - a neutral impact on safety.

"Sustainability is becoming increasingly important; however, safety must never be compromised or overlooked," de Bruijn said.

Learn about creating a sustainable flight department at: nbaa.org/sustainability.

Article courtesy:
https://nbaa.org/news/business-aviation-insider

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