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GLOBAL AIRCRAFT LESSOR COMPANY **MACQUARIE AIRFINANCE FLIES FOR AEROITALIA**

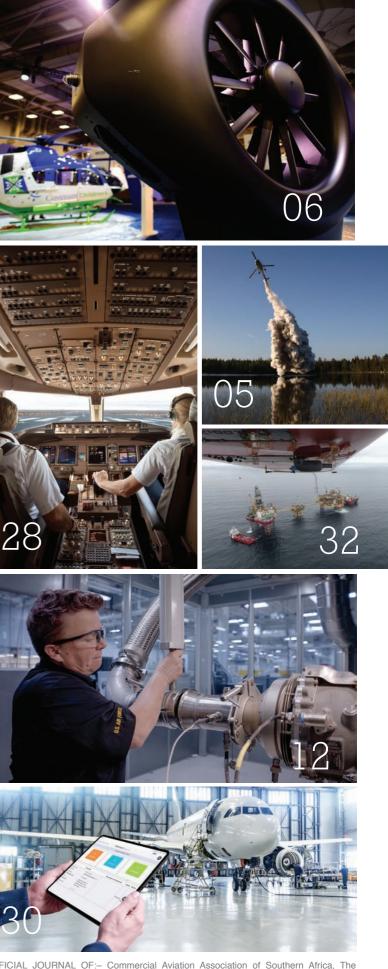


This photo of a Boeing 737NG was taken by our Malta correspondent photographer Mario Caruana who works for MAviO News. The aircraft is owned by global aircraft lessor company Macquarie Airfinance and flies for low cost airline Aeroitalia. It was spotted at Malta airport operating a rotation to Torino. The company has about 50 employees at the moment, with the majority coming from Alitalia and Air Italy. This month its all about maintenance, repair and overhaul and we are pleased to have both Airbus Helicopters and Boeing provide an in-depth look at this part of the aviation industry.

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AIRBUS

FLAREPATH

AVIATION RETURNS

It's been four long years but finally, finally travel is opening up, masks are off and the world has learnt about Covid-19, the pandemic and how to live through this.

By Heidi Gibson

I can write all of this with confidence because I have just come back from the International Air Transport Association (IATA) AGM and World Transport Summit held in Doha. Hats off to the sponsoring airline Qatar Airways who treated myself and another South African journalist to – my first - business class travel experience. Called the Q-suite I couldn't understand why until the cabin crew explained. If you are travelling as a family - the seats are arranged (forward and aft facing) so that the interleading screens can come down and the four members can sit, chat and dine together. When anyone wants to sleep, they simply pull up the screen, lie back and make the seat flat and sleep. It is luxury in a class of its own.

So that's Q for quad I guess ... If you are alone, you have the privacy of your own space, fine dining, entertainment and making your space completely private. Honestly, I could write realms about everything. There is a reason why they call it the World's Best Business class – it's true.

From an aviation point of view, a lot of the focus was on sustainability and efforts to achieve net carbon emissions by 2050 as

well as gender diversity. It was lovely to meet Marie Owens Thomsen, chief economist and spend some time discussing the changing times, effects of the Ukraine war and hear her take on the impact these forces will have on the aviation industry. Also worth mentioning is RwandAir chief executive Yvonne Makolo's appointment as chair of the board of governors. She will make history as the first woman to serve in this position.

Read our African stories on our website - www.airnews.co.za Best of all it was great to meet without a mask and wear one if you felt you wanted. There was no judgement or pressure. Then on my return to South Africa, we followed suit and the rest of the Covid restrictions on travel, events and the wearing of masks indoors also fell away.

The #AviaDev conference in Cape Town will have concluded by the time you read this and so more of this will go on our website. Then this month there is #AEROSA in JHB and in the UK -Farnborough and the Royal International Air Tattoo is also happening where the 75th anniversary of the US Airforce will be celebrated. They are said to be bringing two B-52H Stratofortress bombers – one which will perform a fly past and the other will be on static display.

The first time in 10 years that aviation enthusiasts will get the chance to see them!

Now for this issue we have focused on the world of maintenance, repair and overhaul and it's such a scoop that both manufacturers Airbus and Boeing have given us their exclusive interviews. So, turn the page and start reading. It's a great issue.



MRO

AIRCRAFT MAINTENANCE **BOOSTED BY** DIGITAL **TRANSFORMATION**

had a direct presence in South Africa for more than 27 years. World Airnews interviewed managing director and Airbus chief representative for South Africa at Airbus southern Africa Gilbert do Nascimento.

Airbus southern Africa has

WAN: Thank you for time, I would like to start the interview by asking you to introduce yourself to our readers to you and telling them about your current position at Airbus, your role and responsibilities and key focus areas.

GdN: Thank you for this opportunity. My name is Gilbert do Nascimento and I am the Managing Director of Airbus Southern Africa (Pty) Ltd ('AZA'). Our company has maintained a direct presence in South Africa since 1994 with our local headquarters based at Grand Central Airport in Midrand. We are an Airbus one-roof organisation and also provide the full scope of Airbus helicopter activities. AZA's territorial responsibility includes 40 countries within Sub-Saharan Africa and the Indian Ocean Islands, and given our local expertise, we're regularly called upon to support helicopter completions for civil end-users in the Middle East. Local skills

eniovs this service. Photo cre

H135 – Last year Airbus Helicopters launched a new set of digital services called HDataPower. This latest generation of helicopters test genera





development and growth is currently one of our key focus areas along with the further development of the local supply chain.

Our facilities and workshops have the capacity to accommodate 100 employees dedicated mainly to helicopter re-assemblies, customisation, spares warehousing and re-distribution, technical support, and training for a regional civil fleet in excess of 350 helicopters.

WAN: From my understanding there are four current trends that relate to the maintenance, repair and overhaul section such as - digital twins, predictive maintenance incorporating the use of AI, the use of drones and cloud-based solutions. Would you agree with this?

GdN: Aircraft maintenance has been given a massive boost thanks to digital transformation in recent years. We see this at Airbus Helicopters through our range of connected services solutions that assist customers to collect and interpret their data. The benefits of connected services range from a better understanding of day-to-day operations, to predicting what unplanned maintenance issues might occur months from now. When data drives decision-making, the result is more time flying under the safest conditions with cost-efficiency in mind.

In 2021, Airbus Helicopters launched a new set of digital services called HDataPower dedicated to our latest generation of helicopters, i.e. the H135, H145, H160, and H175. This offer is designed to boost airworthiness and maintenance operations through easy-to-use digital solutions that leverage data generated by helicopter systems, such as flight data recorders and avionics systems (e.g. our Helionix®), or maintenance software and applications used to manage fleets.

Our digital offering also includes the SACAA-approved Fleet Keeper, which replaces hardcopy logbooks, and Fleet Master, our homegrown maintenance information system. Both of these bring greater accuracy and traceability and provide a wealth of data with which Airbus Helicopters can perform analytics to and develop predictive maintenance algorithms.

FlyScan is Airbus Helicopters' predictive and proactive maintenance service, which leverages an operator's pre-existing Health & Usage Monitoring System (HUMS) system by analysing the data and providing valuable information about a helicopter's current condition, its behaviour in flight, and the health of its components.

WAN: Can you comment on the current trends and tools and unpack what they mean in the context of the helicopter MRO sector.

GdN: Predictive maintenance incorporating the use of AI; here we record helicopter data through systems like HUMS to improve maintenance, detect any defect at an early stage and accompany the customers with their maintenance programs.

Cloud based solutions: Our cloud-based solutions are integrated into the AirbusWorld collaborative customer portal where customers can learn about Airbus Helicopters' services and software on one unique platform.

Cloud-based services accessible from AirbusWorld include technical logbooks, fleet airworthiness management, log card management, troubleshooting & failure management, parts list & orders preparation, parts search, and finally fleet availability monitoring, reliability e-Reporting, online communities and a newsroom.

WAN: Is there any other current trends that I may have missed? Can you fill in the gaps for our readers and let us know what is planned for the near future?

GdNO: Our focus is on ensuring the highest levels of fleet safety and availability. Our customer's top priority is to fly safely, so at Airbus Helicopters we offer HCare global support contracts where large fleet operators can subcontract all or part of their maintenance activities to Airbus Helicopters instead of having multiple contracts managed by several parties. In parallel, our ambition is to continue to co-exist, support and collaborate with existing regional AMOs who ultimately also maintain an Airbus Helicopters fleet.

We are also looking for ways to help the industry accelerate the usage of sustainable aviation fuels (SAF). All of our helicopters are already certified to fly with a blend of 50% SAF in both engines, and our objective is to bring this figure up to 100%. In June 2022, an H225 performed the first ever helicopter flight with 100% SAF powering both engines.

WAN: Turning our attention to the Covid-19 pandemic, can you tell us briefly how the helicopter sector was affected and in what way

did the company have to adapt - taking us through to the current time where we find ourselves moving out and into a post-Covid environment?

GdN: Our customers performing essential services did not stop their activities during the Covid-19 pandemic. Under the strict enforcement of the local measures and confinements, we continued to deliver to such customers, while simultaneously protecting our employees.

Many of our customers played an essential role transporting Covid-19 patients to medical facilities, proving the necessity of helicopters under such a crisis.

WAN: What lessons have been learnt?

GdN: Covid-19 has enabled us to be digitally closer to our customers as we had to seek out new ways of engaging and supporting them during the pandemic. At the same time, we are now delighted to start travelling again and meeting our customers face-to-face. Our customer's trust, confidence and satisfaction remain among our top priorities at AZA.

WAN: Using your knowledge of the region what are your predictions for the future? Do you believe that the sector is poised for growth in southern Africa? I say this, because according to the Oliver Wyman's Global Fleet & MRO Market Forecast Commentary 2022-2032, for the MRO sector, the market is being redefined by a fleet in transition meaning a replacement of older models for new. Would you agree with this?

GdN: We have already seen a trend of new helicopter acquisition plans in the past months. Over the next few years, we expect customers to move forward with the large number of potential renewals we foresee in our region. And we believe new customers will naturally appear to provide essential services to growing regional needs.

WAN: This current situation is in part because of higher numbers of retirements of aircraft due to enter a period of intensive MRO expenses. Would you agree with this and be able to say what is driving this? GdN: Airbus Helicopters has the right support programmes in place for older fleets, thanks to a new offering called HCare Classics. It was designed for customers operating legacy fleets and wishing to get the best use and value out of their helicopters. We have listened to these customers and understand their pressure points. We furthermore continue to support our entire legacy range, including the Dauphin, Puma, Gazelle and H120 with a growing dedicated secured stock.

WAN: If you do see growth in your sector what types of helicopters will this be in for the southern African market?

GdN: The H125 remains the unbeatable leader for all segments in its class due to its performance in hot-and-high conditions.

The H130 is also leading in the tourism and private / business aviation segments. It is the quietest helicopter on the market in its category due to its Fenestron shrouded tail rotor and automatic variable rotor speed control. With three seats in the front, thanks to a large unique cabin, the H130 has shown a good sales trend over the past years and the market demand is today currently high.

In terms of evolution, we see the trend towards light-twin helicopters, such as the H145. Our heavy twins are also a growing trend, with more H225s operating in the region, and we are excited to potentially see our new H160 and H175 flying in our region in the not-so-distant future.

Finally, we also see that our military range of helicopters also answer to the mission profile of regional Military Air Support Units by bringing the required performance at the right price followed by entryinto-service and follow-on support.

WAN: Lastly does Airbus have any dedicated MRO centres like the one opened in Paris near the Roissy Charles de Gaulle airport. What type of MRO facilities are there for southern African customers or does this operation work for them?

GdN: Earlier this year, we opened the Airbus Helicopters MRO Logistics Centre in Tremblay-en-France near Roissy Charles de Gaulle Airport. The building was designed to house all logistics activities related to helicopter component repairs, including the receiving, screening, quality control, storage and re-distribution of MRO parts. It is a logistics facility which will also feed our own warehouse for regional redistribution.



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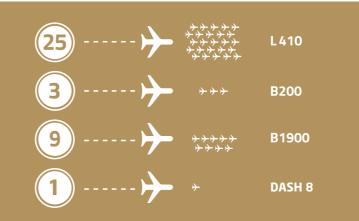
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- Pilot & Engineer Training





 Image: Sector Sector

AIRCRAFT EXTERIOR CLEANING ROBOTS

With only 5% of the total aircraft exterior cleaning market represented, semi-automated robots are a niche area in the aviation industry.

Despite this, it still remains a leader in innovative solutions for exterior washing that a number of airlines and maintenance, repair, and overhaul (MRO) services still have not implemented.

Regarded as a very narrow market, with only two manufacturing companies, semi-automatic aircraft exterior cleaning robots are, surprisingly, not new in the aviation industry.

Jan Brunstedt, CEO of Aviator Robotics AB and the creator of Nordic Dino, a leading aircraft exterior cleaning robot, said that cleaning robots have been around for some 40 years, despite the fact that aviation is currently undergoing a rapid automation process.

"The idea of a semi-automatic aircraft exterior cleaning robot came from a very real pain point that airlines and MROs have been dealing with up to this day. What we call the 'traditional' way of washing an aircraft exterior, the wet washing, has presented several problems primarily, the time spent washing, the manpower needed for it and the various equipment necessary to complete the job". "Having been a commercial pilot for years, I was able to get up close to those issues and understood where the changes could be made. That is how the idea of a semi-automatic exterior cleaning robot came." Over the years, the key issues with the traditional way of washing aircraft exteriors have partially been addressed with dry washing - a way of quick washing the body of an aircraft that requires no water but still uses manpower, equipment and litres of chemicals to do the job.

However, according to Brunstedt, very few airlines, and MROs actually use dry washing and usually stick to the traditional way.

The reason for it is that current-day Boeings and Airbuses are made of composite materials like fiberglass, which from a cleaning perspective, is more prone to cracks, scratches and other types of surface damage.

"Around 30 - 40 years ago, aircraft would be washed only 2 times per year as part of maintenance procedures," said Brunstedt.

"Nowadays, it has gone up to at least four times as the material of the aircraft body has changed and the looks of an aircraft from outside play a bigger part, too."

Yet, the niche market of semi-automatic cleaning robots seems to hold current-day solutions for both wet and dry washing drawbacks that many airlines and MROs have to deal with.

Bunstedt said that semi-automatic robots ensure the quality and quickness of a full wash, cutting out bulky equipment like lifts, that can also damage aircraft body during a manual wash.

Human error come into play as well, which the robots cut out completely. Together with that, the number of people needed to complete the washing is reduced significantly as well, needing only one or two people at most.

"Some of the largest savings that come with a robotic washing system pay off in three to five years," said Brunstedt. "While it is an investment, it ticks off the main boxes for airlines and MROs when it comes to aircraft exterior cleaning efficiency."

AFRICAN AVIATION RENAISSANCE IN MRO SERVICES

Ethiopian Airlines MRO, UTD Aviation Solutions and the African Airlines Association have signed a tripartite MoU to work together on Maintenance, Repair, and Overhaul (MRO) services in an effort to affect the Brown Condor Initiative (BCI).

The signing ceremony took place at Ethiopian Airlines headquarters in Addis Ababa, Ethiopia.

The Brown Condor Initiative (BCI) is a joint initiative, conceptualised in 2020, that was officially launched by UTD Aviation Solutions and AFRAA in May 2021. It is aimed at providing a platform for AFRAA members with Maintenance Repair and Overhaul (MRO) facilities to relieve the USA MRO workforce crunch in terms of both facilities and manpower constraints, as well as support other airlines from USA in MRO services and aircraft spares.

Abdérahmane Berthé, AFRAA secretary general, said "This signing ceremony with Ethiopian Airlines is a significant milestone in the Brown Condor project. We express our appreciation to Ethiopian Airlines as the first African airline to sign the Memorandum of Understanding (MoU) that will put into operation the objectives of this robust project."

"For two years, as part of the industry recovery measures at AFRAA, we have been working with partners to bring solutions to our members to reduce costs or increase revenues. We look forward to onboard other AFRAA airlines with EASA or FAA Certified MRO capabilities onto this project. Our joint efforts reflect a paradigm shift in the MRO industry," Berthé said.

Ethiopian Airlines Group CEO Mesfin Tassew said, "Ethiopian MRO Services, as the largest MRO service provider in Africa, is continuously increasing its capacity and expanding its reach to customers in the Middle East, Europe and the Americas. We are pleased to sign this MoU with UTD and AFRAA as it is in line with our plan to increase our market reach and build our presence in North America and tap into the big potential market in the region."

"The pandemic has exposed how delicate the aviation pipeline truly is. OEMs and MRO's have consistent demand for airframe checks and engine shop visits, and a relatively predictable demand for new, repaired and used spares. Without a major Paradigm Shift, we will never find a solution. The African Aviation Renaissance is the paradigm shift needed for the solution to this crisis.

This tripartite agreement will correct the trajectory of the aviation comeback. "said Dahir Mohammed, President and CEO of UTD Aviation Solutions.

The MoU will forge collaboration between AFRAA member airlines' associated MROs with US Airlines, MROs, OEMS, distributors and other US civil aviation organisations companies. The management of the Airline's MRO excess of spare parts inventory both locally and from USA shall be co-ordinated through a virtual consignments platform.

The Brown Condor Initiative is code named after Colonel John C. Robinson the first African American aviator who also participated in the Ethiopian victorious war against Italy. Colonel John C. Robinson was enlisted by the then Ethiopian Emperor Haile Selassie as a fighter pilot. He immediately began training young Ethiopians in the technical complexities of aviation, especially pilots in preparation for war.

For his daring service amid Ethiopian skies, Robinson earned international renown as the "Brown Condor of Ethiopia." Through this unique joint initiative, UTD Aviation and AFRAA seek to re-establish African aviation renaissance in MRO services and aircraft spares.





3D PRINTING CAPABILITY AT US MRO

Collins Aerospace has opened an additive manufacturing centre at its MRO campus in Monroe, North Carolina (US).

by Kerry Lynch

Celebrating the occasion Collins said the addition would expand its global maintenance, repair, and overhaul capabilities, beginning with two 3D printers and plans to add more in the future. The centre joins Collins's network of other additive production facilities in Iowa, Minnesota, Singapore and research centres in Connecticut and Poland.

"Through a process of joining materials layer upon layer to make parts from 3D model data, additive manufacturing offers several key benefits compared to traditional manufacturing," said Collins Aerospace operations vice president Kevin Myers.

"By using additive manufacturing to produce aircraft parts and components, we can help reduce weight, cost, time to market and provide more sustainable solutions for our customers."

The addition of the additive manufacturing capabilities in Monroe comes on the heels of a (US) \$30 million expansion Collins completed in Monroe in 2021. Collins has since invested another (US) \$15 million as part of a Monroe City Council and Union County board of commissioners MAGNET100 economic development incentive programme.

The investments have enabled Collins to streamline operations, improve quality control and employee safety.

Part of Collins's network of 75 MRO facilities worldwide, the 160,000ft² Monroe MRO opened in 2004 and is one of Collins's largest MRO facilities, serving more than 300 aerospace and defence customers.

The site repairs some 6,500 components such as actuation systems, helicopter rescue hoists and air management systems. Collins said it has brought more than 70 new employees to the Monroe facility over the past year and is continuing to hire.

Article courtesy:

https://www.ainonline.com/aviation-news/air-transport/ https://www.collinsaerospace.com/newsroom/News/2022/06/ Collins-opens-additive-manufacturing-center-expands-globalrepair-capabilities-Monroe-campus



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MRC

INDUSTRY LEADING DIGITAL SOLUTIONS

While the global market begins to recover Boeing outlines the many different solutions offered to customers that help to reduce costs and provide stability to this sector

WAN: What kind of MRO services does Boeing offers to their customers in Africa?

1600 000

Boeing: Throughout Africa, Boeing offers:

- Repair Management Services
- Tools and Ground Support Equipment
- Chemical Management (adhesives/sealants/disinfectants etc)
- Wheel & Brakes Services
- Battery Services
- Rotables & Exchanges
- Used Serviceable Materials
- Paint Mixing

14

Hose shop Services

WAN: Digital twins, predictive maintenance incorporating the use of AI, the use of drones and cloud-based solutions are all current trends in MRO. How is Boeing using these - one or all - in their MRO services?

Please can you describe in brief to me?

Boeing: We can focus in on predictive maintenance and digital twins. A digital twin is a virtual, or digital, representation of a physical object. This can include everything from nuts and bolts up to components and systems that are part of an aircraft. Once an aircraft enters into



Boeing Ethiopian. Established in 1957, Ethiopian MHO and engineering services boasts a rich history of maintaining and repairing Boeing aircraft.

the operational phase of its lifecycle, Boeing's analytics teams take the digital twin for components or systems of interest on that aircraft and maintain them utilizing data related to their physical counterparts. We call this the operational digital twin.

For example, we collect flight sensor data, maintenance records, and operational and environmental data, to name a few sources.

All of this data is stored, correlated, tagged and enhanced. These data feeds are the digital threads that we weave together to maintain the operational digital twin alongside the physical aircraft. Since our ability to process data has expanded, we can now connect all the known information about an aircraft platform, and not just connect it, but dynamically update and maintain it. As we continue to scale the resolution and coverage of these operational digital twins, our capability will expand to cover more of the complete aircraft. What's the value of this practice? We combine this information with engineering, data science, and logistics models to understand the current state, and predict the future health of a part, prescribe proactive maintenance actions, and determine the logistics needs for

the next three, five and 10 years and more. These models can help provide more accurate predictive insights that can support a more comprehensive view of overall airplane health management and predictive maintenance that is proactive, instead of reactive. In the commercial aircraft sector, our data analytics team uses digital twin and model-based engineering tools through services such as Boeing's Airplane Health Management.

We track when components are installed and use digital threads of data to update the digital twins to match changes to the physical components. With this capability we can identify proactive removals of components that have degraded and are able to suggest targeted maintenance actions, such as heat exchanger cleaning, to prolong the on-wing time of other components. In short, operational digital twins can prevent unscheduled or reactive maintenance with scheduled, targeted maintenance actions.

Digital twin technology bolstered by AI and machine learning tools enable us to offer more prescriptive maintenance. Prescriptive maintenance goes beyond the individual recommendation and enables all the maintenance necessary to maintain operations – from predicting and identifying parts to replace (as Airplane Health Management already does today), to automatically updating maintenance task cards, notifying the technicians and automating requests to order the parts ahead of the next landing.

This can all happen while the plane is still in the air to ensure everything is ready to go for the maintenance crews before it even lands. We are already seeing scenarios like this happen with the technologies we have available today; and this will continue to improve as we incorporate newer technologies into airplane maintenance applications for airlines.

Predictive maintenance tools and practices can effectively reduce schedule interruptions and reduce component maintenance costs. In terms of translating this into tangible cost savings, we have observed this benefit can be in the range of several \$100K per instance where a maintenance alert creates a "save" (i.e. the system recommends proactive removal of a component that is confirmed to be near the potential failure threshold).

WAN: Turning our attention to the Covid-19 pandemic can you tell us briefly how the sector was affected and in what way did it evolve or adapt? What lessons have we learnt?

Boeing: The aerospace industry has made important progress in the recovery. While we remain realistic about ongoing challenges, the past two years have shown that passenger traffic rebounds swiftly when the flying public and governments have confidence in health and safety during air travel. Our industry continues to serve an essential role of bringing people together and transporting critical supplies.

The global market is recovering largely as Boeing projected in Oct. 2020. Demand for domestic air travel is leading the recovery, with intra-regional markets expected to follow as health and travel restrictions ease, followed by long-haul travel's return to prepandemic levels by 2023 to 2024.

We've seen this phased recovery translate into demand for more than 1,000 737 MAX orders since Nov 2020, mainly supporting domestic and regional international markets. We anticipate demand for widebody aircraft to take longer to return in line with the international traffic recovery.

WAN: I believe that one of the problems caused by Covid is a shortage of a labour force such as aviation mechanics - are there any interventions that Boeing is currently rolling out to address this?

Boeing: Two years after the pandemic hit the commercial aviation industry with full force, Boeing Commercial Airplanes employment

has stabilised. In 2021 we recalled about 2,000 machinists to support airplane production and we continue to hire more employees as we plan for the future. Currently Boeing Commercial Airplanes is actively hiring in engineering and manufacturing and will continue to hold recruiting events.

Commercial Airplanes employs more than 35,000 people around the world.

WAN: What software programme that would offer features like labour hour tracking, maintenance scheduling and service bulletins does Boeing offer its clients?

Boeing: Boeing offers many industry-leading digital solutions to help manage every aspect of airline operations. For example, our crew management solutions offer advanced optimisation, innovative architecture and seamless integration. Jeppesen Crew Rostering strikes the perfect balance, each month, to deliver the most optimised and balanced crew rosters while considering legality, crew availability, training, reserves, crew preferences, and other critical factors. The speed of the optimisers allows for a faster roster construction process - closer to the day of operation - allowing for greater roster and operational stability.

In the realm of maintenance, Boeing's Maintenance Performance Toolbox allows operators to simplify their maintenance operations by enabling them to manage, distribute, process and view intelligent



Boeing 737 MRO. Earlier in 2012 Aerostar's biggest MRO client from Africa was Royal Air Maroc. Here a RAM Boeing 737 underwent a 'C' check.

maintenance documentation in a uniform digital format through a single interface, regardless of aircraft manufacturer or engine type.

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KENYA AIRWAYS FERRIES SA CARGO

By Boniface Kanyamwaya

Kenya Airways (KQ) has started ferrying cargo on behalf of South African Airways (SAA) with whom it signed a collaboration agreement last year to establish an African airline group by 2023.

The recent agreement has seen KQ ferry cargo on behalf of the South African carrier on routes that it operates freighter business such as Amsterdam.

It comes as the two carriers are said to be planning an investor road show to find an investor that will assist in their plans to attract a majority investor to assist in establishing a holding company to be modelled on British Airways and Iberia owner IAG.

Kenya Airways chief executive officer Allan Kilavuka has said the roadshow events will be staged in Africa, London and the US. Cargo accounted for 19 per cent of KQ's Sh70.22 billion sales in the year to December 2021.

In the year ended December 2020, cargo accounted for Sh9.01 billion of the airline's Sh52.80 billion sales.

"KQ is carrying cargo for us on routes where we don't operate as a third-party service provider," South African Airways acting CEO John Lamola said.

"They are doing cargo for us because we don't have the capacity to do it. We only operate nine planes down from 50 because we went into bankruptcy."

The Strategic Partnership Framework was signed in South Africa last November. The agreement is the pre cursor for the two carriers to form a Pan-African carrier that, it is hoped, will improve the financial viability of the two airlines currently struggling to stay afloat. Customers will benefit from more competitive price offerings for both passenger and cargo segments.

As part of the same agreement customers will be able to enjoy new lounge access that will allow KQ business class customers as well as Sky Team Elite customers (Platinum and Gold) exclusive access to the lounge services at the SAA ultra-modern Platinum lounge located at OR Tambo International Airport in Johannesburg.

At the SAA lounges in Johannesburg, customers will have two options to choose from.

Both offer a tranquil and comfortable escape from the hustle of the airport to freshen up, have complimentary WI-FI access, entertainment, indulge in food and beverages.

The SA government, a majority shareholder was forced into bankruptcy and survived on repeated bailouts. Then it sold a majority stake to a local jet-leasing company and private equity firm last year.

On the other hand, Kenya Airways has also been on a lossmaking streak that started before the coronavirus crisis hit the aviation sector.

KQ reported a net loss of Sh15.8 billion in the year ended December 2021 compared to a net loss of Sh36.2 billion the year before when travel restrictions hit operations hardest, including the grounding of its planes for months.

The latest loss means that KQ has now gone for nine straight years without profits, extending its accumulated losses to Sh144.64 billion.

The airline last made a profit in 2012 when it closed with net earnings at Sh1.66 billion.

The huge accumulated losses have seen KQ slip into negative equity, meaning it is technically insolvent.

KQ's negative equity deepened to Sh83.4 billion at the end of 2021 from Sh64.2 billion the previous year.

Pegasus Airlines CEO Nane becomes first **Turkish chair of IATA**

Mehmet T. Nane, vice-chairperson of the board (managing director) of Pegasus Airlines, has assumed his duties as chair of the International Air Transport Association (IATA) board of governors, succeeding Robin Hayes at the 78th General Assembly held in Doha.

Nane becomes the first Turkish chairman of IATA which represents 292 airlines from 120 countries comprising 83% of global air traffic and will serve until June 2023.

"I'm honoured to take on this position at a time when the industry is emerging from our worst downturn and to be the first Turkish chair of IATA. A huge part of this honour is that it represents how far Turkish civil aviation has come," he said.

"The aviation industry has been going through one of the toughest tests in its history over the last few years and is being directly



affected by different political and economic factors as well as the COVID-19 pandemic. This means that our already demanding industry now has even more challenges. Despite all the challenges, every one of the stakeholders in our industry are working with maximum effort. As IATA, in addition to maintaining momentum toward re-opening the world to travel and commerce, we have a very full agenda over the next 12 months including supporting CORSIA at the upcoming ICAO Assembly, refining the pathway to Net Zero Carbon Emissions by 2050, and broadening gender diversity by 2025, an initiative for IATA member airlines to improve female representation in the industry by 25% or up to a minimum of 25% by 2025. Together with all our members, we will work hard to realise our main objectives and propel our industry forward."

The 79th IATA general assembly and World Air Transport Summit will take place in Istanbul, Türkiye on 4-6 June 2023. Nane said, "We will be delighted to welcome global aviation professionals in our beautiful country, hosted by Pegasus Airlines."

STAR AIR CARGO'S FORMER BOEING 737-300 **FINDS BUYER IN IRAN**

The former Boeing 737-300 of Star Air Cargo, a South African ACMI/charter company, will have a new life under the colours of the Iranian private carrier Karun Airlines.

The aircraft (MSN 29327, ex-ZS-TGB) made a ferry flight on 30 May from Tashkent International Airport (Uzbekistan) to its new base at Ahvaz Airport in southwestern Iran. The sale of the aircraft, the amount of which was not disclosed, was handled by global aviation services group ACC Aviation, which "provided contractual advice on all documents related to the transaction, ensuring that industry standards were met and that the transaction was fair to all parties."

Aged 24, this Boeing 737-300 had been integrated into the Star Air cargo fleet in April 2019 until the end of December 2021. It had previously flown for LAM Mozambique and Mango Airlines (South Africa).

In June 2019, Star Air and its subsidiary MRO Star Air Maintenance were initially acquired by Comair - now in cessation of activities. Although the acquisition was confirmed in December 2019 by the South African Competition Commission, the deal was cancelled due to financial restrictions imposed on Comair amid the health crisis.

In the wake of this failure, Glenn Orsmond, chief financial officer of Star Air Cargo, later became CEO of Comair in July 2021. Prior to the pandemic, Star Air operated a fleet of five 737-300s and five 737-300Fs for a variety of customers.



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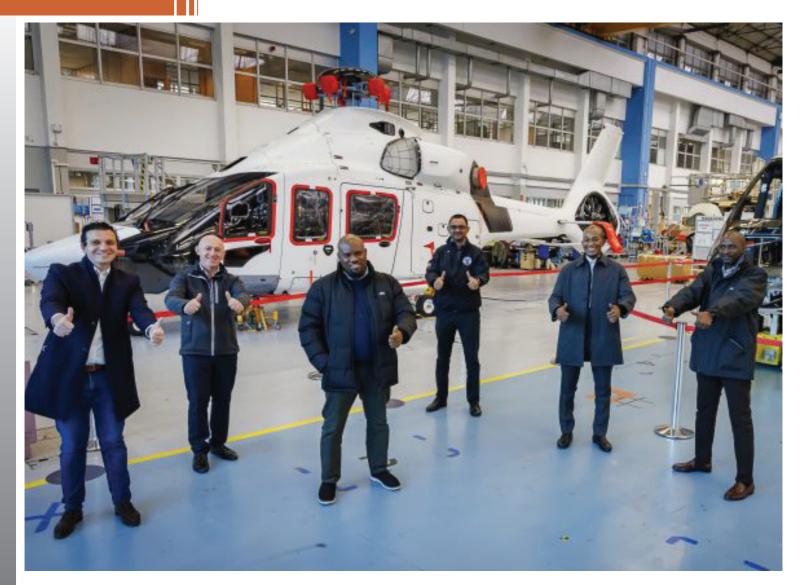


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HELICOPTERS



A WEST AFRICAN INDEPENDENT DISTRIBUTOR

A Nigerian privately owned FBO and aircraft maintenance company - EAN Aviation is expanding its business segment.

Recently the company signed a partnership agreement with Airbus Helicopters, making it the first independent representative of the aircraft manufacturer in West Africa.

The partnership with the Nigerian company relates only to the market for civil helicopters (vehicle, maintenance and support of aircraft and spare parts) and excludes military aircraft.

"EAN has been at the forefront of business aviation development in Nigeria for over a decade. We look forward to leveraging our impressive network and deep understanding of the market to grow the helicopter services industry, and to add value to Airbus Helicopters' business in the West Africa region, deepening connectivity and operational efficiency." said Segun Demuren, CEO of EAN Aviation. (from left to right) Joseph Baptiste (Product Marketing Manager, Airbus Helicopters), Eric Gilles (Area Sales Manager, Airbus Helicopters), Adedayo Odusote (Head of Sales and Marketing, EAN Aviation), Alyosha Saliu Lawal (Head of Maintenance, EAN Aviation), Segun Demuren (MD/CEO, EAN Aviation) and Tayo Aiyetan (Head of Operations, EAN Aviation)

Nigeria, with more than 200 million inhabitants spread over 923,768 km², is an important market.

"We have 32 major airports and 774 local governments that can be served by helicopters," he added.

EAN Aviation was selected because of its local business structure, its ability to further develop local and ancillary markets, its ability to support Airbus customers and contribute to customer satisfaction in line with Airbus Helicopters' ethical and compliance requirements.

"We are delighted to have EAN as the first independent distributor in the West African region. Their knowledge of the market is second to none. We are confident that the team of experts will ensure the success of this partnership. It will give us the opportunity to expand our footprint in West Africa and develop the civilian helicopter market, which is well suited to the needs of aviation in the region as it offers operational flexibility to develop the transport market," said Arnaud

Montalvo sales manager Middle East and Africa at Airbus Helicopters.

Airbus' helicopter division is present in around 150 countries through its 31 customer centres and affiliated sites. In addition to Nigeria, its African representations are located in South Africa (Denel Aeronautics, Airbus Southern Africa) in Côte d'Ivoire (International Aircraft Services), Egypt (Helwan Factory for Developed Industries -HFDI), Kenya (Northwood Agencies Limited) and Morocco (Heliconia Industries).

NEWS

THE RETURN OF **TURKISH AIRLINES**

By Clinton Barnard

When all seven Foreign-Based Scheduled Passenger Operators (FBSPOs) ceased operations from Durban's King Shaka International Airport on March 27 over two years ago due to the Covid-19 pandemic, it was clear that one day, Turkish Airlines would return. But when?

Then the restrictions were lifted on October 1 and both Emirates and Qatar wasted little time and returned to Durban service. But Turkish Airlines and a few others were nowhere to be seen.

The airlines had suffered a series of on/off flight schedules as the various Covid-19 'waves' washed upon sunny Durban's shores. Still Turkish Airlines remained noticeably absent.

2021 heralded no Turkish delights. The airline was buying time waiting for greater stability in passenger numbers before making its

return. This despite already flying to both Johannesburg and Cape Town for some considerable time.

Despite a sprinkling of flights (five between April 24 and May 6) to bring delegates attending the Africa Travel Indaba 2022 in Durban, it would be almost two years and three months - 817 days - before the flag carrier eventually returned to sustained scheduled passenger operations at KSIA.

Currently it is a two weekly arrival schedule on a Thursday and a Saturday in stark contrast to the previous four weekly arrivals. In a strategy close to Qatar Airways, the initial schedule makes use of two different aircraft types flown in rotation! The Thursday flight uses the Airbus A350-941 and the Saturday arrival the Airbus A330-300. How long this 'twinning' will be maintained is anyone's guess, but if Qatar Airways can do it with their Boeing 787-8 and A350-941, then why not Turkish?

While the A330-300 is no newcomer to Durban in the colours of Turkish, this airline has never used the A350 to Durban. Qatar Airways was the first to use this the type to KSIA on a sustained basis.

The official start of its second stint of service to Durban on Thursday June 16 saw the arrival of A350-941 registered TC-LGC and the second flight on Saturday June 18 the A330-300.

Turkish Airlines used Johannesburg as dogleg both inbound and outbound from Istanbul, as many international airlines that fly to Durban do. It is expected that during this second period of service this practice will, at least initially, continue to prevail.

Arrival times at Durban are 12H55 and departures are scheduled for 15H10 on both days under the old flight designation TK42/43.

The welcome return of an old stalwart, Turkish Airlines, means that Durban can once again boast three FBSPOs - a slow, but constant recovery from the nightmare that was COVID.



ENHANCING CONNECTIVITY ACROSS SOUTHERN AFRICA

Qatar Airways and Airlink have signed a comprehensive codeshare agreement to offer travellers more choices, enhanced services and greater connectivity between 45 destinations in 13 countries across southern Africa and the rest of the world.

This latest codeshare agreement means travellers can enjoy the simplicity of purchasing connecting flights on both airlines using a single reservation with seamless ticketing, check-in, boarding and baggage-check experience, during the entire journey.

The partnership will enable customers to book attractive offers from southern Africa to popular destinations in the US such as New York and Dallas, cities in Europe such as London, Copenhagen and Barcelona, and points across Asia like Manila, Jakarta and Cebu.

The agreement also increases Qatar Airways' footprint in southern Africa, with improved access to destinations such as Ggeberha (Port Elizabeth) Hoedspruit, Skukuza, George in South Africa and beyond to Botswana, Namibia, Zambia, Zimbabwe and Mozambique.

"Expanding our network with Airlink gives our customers more choice of destinations and flights, that we hope will contribute to the rapid recovery of travel, which plays such an important role in southern African economies."

"We have boosted our presence in the African market by adding eight new destinations since the start of the pandemic and fostering partnerships such as this dynamic agreement with Airlink which will greatly enhance our offering to our customers and support travel and trade," said Qatar Airways' Group Chief Executive, His Excellency Akbar al Baker.

Qatar Airways was the only airline to launch new services in southern Africa after the pandemic, starting operations to Luanda, Harare and Lusaka last year. It resumes operations to Windhoek this month, providing another connection to Airlink's already extensive regional network via eight gateways in the region.

Meanwhile Airlink Chief Executive Rodger Foster said, "This development is an endorsement of Airlink's relevance to providing air access to the entire region through our expansive network of destinations, which when considered in conjunction with Qatar Airways' global reach creates unparalleled connectivity opportunities.

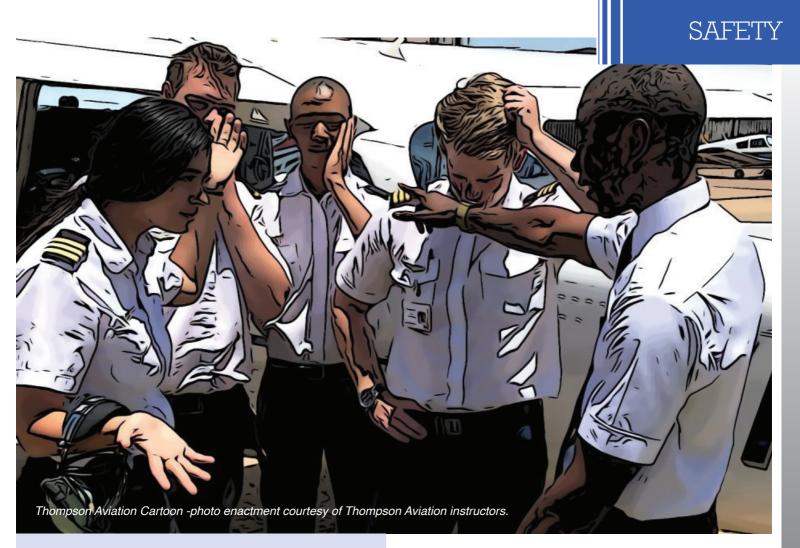
As southern Africa's leading airline, Airlink provides comprehensive, safe, and reliable air transportation services, enabling socio-economic development by connecting people with each other and facilitating trade within the region and beyond."

The new code share flights are available for sales and will commence travel this month subject to government approval.

Qatar Airways offers direct flights from Doha to Johannesburg 21 times weekly, to Cape Town 10 times weekly and to Durban four times weekly. From South Africa, travellers can connect easily to destinations across six continents via the World's Best Airport, Hamad International Airport.

Qatar Airways was the only carrier to continue operations to southern Africa during the pandemic and its immediate aftermath, allowing for the movement of goods, medicines and essential travel between the region and the rest of the world. This enabled people to return home to their families, to jobs and assisted with the postpandemic recovery of our southern Africa trade partners, and the business community.







A termination of training decision comes when it is far too late to be playing the blame game.

TERMINATION OF FLYING TRAINING

By Johan Lottering

One of the most heart wrenching moments in initial flying training is often encountered when a student is faced with a 'discontinuation of training' decision, necessitated by the South African Civil Aviation Regulations (SACAR) 61.02.7.

After 30 hours' training with an instructor aboard an aeroplane, or 40 in a helicopter, a student who might have flown solo at 10 hours but has not yet been released to do so, has to be assessed by the chief flying instructor for fitness to continue training as a first step.

While the first solo flight is normally a joyous occasion intended as consolidation of training and a confidence and morale booster, a termination of training assessment could be a daunting prospect, leading to self-doubt, anxiety and embarrassment.

These hapless students fear being a disappointment to themselves, their parents and/or sponsors and everybody who has been rooting for them.

Those 'for whom the bell tolls' are invariably faced with alternative career options, while those opting to delve deeper may be throwing their or someone else's hard earned money into a bottomless pit to



revive 'shaky' career prospects – not forgetting that flying training is far more expensive than most other studies.

Being assessed by a Designated Flight Examiner (DFE) as further attempt to continue training in itself attracts more costs, though these experts are usually top instructors inclined to follow a sympathetic and remedial but brutally honest approach where necessary.

A successful assessment could result in the allotment of five additional hours of training, perhaps leading to the first solo flight. But the lengthy administrative processes associated with applications for extended training contribute to further delays in an already disrupted training program.

Thereafter, the hapless student may appeal to the good graces of the Director of Civil Aviation (DCA) for yet another few extra hours, before training is terminated for good. The intricacies can be read up in the South African Civil Aviation Technical Standards (SACATS 61.02.7).

In such situations a myriad of questions tends to arise focusing

on student aptitude, dedication or 'lack of 'commitment. Yet, the 'failure to launch' is often only the symptom of a combination of deeper-rooted problems and the culmination of external factors and internal influences. The student may well be the victim of a parody of errors. Training in most countries, and South Africa is no exception, is curriculum driven and not necessarily designed around individual needs.

To discover the relevant combination of underlying reasons, the situation needs to be assessed holistically. Socio-political and cultural factors could also play a significant role. A process of elimination should be followed to arrive at the core issues, like peeling away the layers of an onion. Best is to start with external factors beyond the control of the student.

The approach to training and the training philosophy might be fundamentally flawed. Any specific aviation training organization (ATO) could for instance have purported to be more economical than the next by offering initial phases of training to be conducted on



unconventional, ultra-light aircraft, while these 'nippier' little planes ordinarily present a challenge to far more accomplished pilots.

By the time a hapless student gets the hang of things, the entire quota of hours might have been wasted. These seemingly 'cheaper' options could turn out to be very costly in many ways in the long run.

Other ATOs may have offered too much bang for one's buck. They may have proposed to beat the competition by offering to let students qualify on multiple aircraft types, e.g., both high and low wing planes, instead of one trainer. What might seem like an optimisation of money translates into aspect perception difficulties, coming down to the student becoming a 'jack of all trades but master of none'. Another pitfall is opting for a far too advanced or powerful aircraft not matching experience level.

The proven approach of training students on docile conventional aircraft, still tends to yield the best results. Twenty extra horsepower might prove too much of a handful for a student struggling to cope.

Conversely, in high density altitude conditions at high elevations

underpowered aircraft that might be very capable at the coast could take ages to gain height and even pose a danger to both the instructor and the student.

Other factors could be the many different operations conducted at any specific airport to which training must take a backseat. These add to radio frequency congestion and a lower priority and more time on the ground for training aircraft. From an air traffic controller's perspective, it makes far more sense to get passenger-laden airliners off the ground or landed than letting trainers with only one or two aboard wait at the threshold.

Traffic prioritisation and long routings to general flying areas also result in fewer take-offs and landings per hour for trainers. Traffic circuits are often extended or distorted to accommodate higher priority aircraft. The student therefore does not get accustomed to what a model or ideal circuit pattern should look like and how to deal with any changes. Deviations have become the 'new normal' and students cannot differentiate.

The ironic instruction philosophy adopted by certain ATOs might also be to the student's detriment, where the most junior instructors are allocated to the most junior students. It should be exactly the other way round. A veteran could sooner identify and eliminate misconceptions and bad judgement and help the student deal with these.

The naked truth is that it is unfortunately also not in the financial best interest of some (though not all) ATOs to pay attention to struggling students at the earliest possible stages. Suspicions of students being milked for money are not always unfounded. This phenomenon is unfortunately often linked to overly optimistic initial appraisals of student aptitude. Aspirant students are often depicted as 'naturals' after barely fifteen minutes' exposure to a flight simulator during recruitment drives or so-called 'open days'. Far more time and money should be invested in obtaining both an independent and in-depth initial assessment from a reputable instructor or institution,





instead of getting biased collective 'pro-training' opinions from those with a vested interest.

Effective training-cum-safety management requires a 'top-down' approach. Though it might be vehemently contested, the owners of many ATOs are often less 'hands on' than 'when the sale was made'. There is therefore little chance of problems being detected at the onset. The adage goes that 'only perfect practice makes perfect' while 'more of the same' only fills the coffers of the ATO. The unlearning of bad habits is easier said than done. Students under pressure resort to the first (discrepant) behaviour learnt.

Some DFEs agree that 15 years of age, as the law allows, is just too young to start flying training, for much the same reason one would not give the keys to a powerful sportscar to someone of that age. Though debatable, many 15-year-olds do not (yet) have the necessary life skills and aerial decision-making abilities to deal with emergency situations effectively and are more prone to become overwhelmed.

Certain students (though not all) at flying academies have been observed to form cliques. The first solo flight on or shortly after the 16th birthday has become a prestigious 'feather in the cap' event, instead of the confidence builder and consolidating moment it is meant to be. Many wish to go solo because of perceived parental and peer group expectations (read 'pressures') essentially for bragging rights.

Certain high school academy students become the epitome or extension of their parents' unfulfilled dreams and ideals, as most of us could have been neither the victor nor the victrix ludorum in our heyday.

Then, the training for the private pilot's licence, which may only be attained at the age of 17, has to be extended over an entire year for the early 'bloomer' effectively coming down to training being 'padded' instead of real progress being made. Other considerations especially prevalent at high school flying academies is that peers that are more advanced in the two or three-year programme are being used as quasi-instructors without the necessary 'handson' supervision of a legitimate instructor. Misconceptions could therefore be transferred unwittingly through processes of student 'enculturisation'. Flying training should not be reduced to a pseudo 'Boy or Girl Scout' activity!

The flipside of the coin is the student being handed a bursary/ subsidy on a silver platter, by virtue of a favourable predisposition in life and society or their parents' relationship with a benefactor in their community. While the best vines not only learn to survive but flourish in arid ground, too much (for free) too soon might have exactly the opposite effect.

The likes of these students spend time around the watering holes, partying and socialising at night instead of doing blindfold vital actions or consolidating what has been taught earlier that day. They're often the ones showing a lack of consistency, lapses in standard and/or sleeping in class. Their focus is elsewhere...

Other aspects to consider is that the 'outsider effect', which many contract pilots experience, also apply to especially foreign students far away from home and their emotional support structures. These intra-personal influences might lead to inner conflicts as a result of the social phenomena of 'alienation' or lack of a sense of belonging to a social grouping, combined with 'anomy' alias the sense of namelessness when being in a crowd but not part of it. Students might tend to 'spread their risks' by becoming involved in other groups exerting negative conformist pressures on them.

Another very pertinent challenge, affecting especially foreign students, is the lack of English language proficiency. Such students not only struggle to grasp what instructors and air traffic controllers are saying, but battle to master the theoretical concepts underpinning practical training. They're the ones most likely to rote learn for the exam instead of fully understanding the theory behind it. (As an official remarker, one observes this lamentable tendency even at more advanced stages).

In the end, students battling to go solo are in one way or another rather the victim of a combination of misconceptions than actually being the problem. Remedial training by a highly experienced veteran and looking at the entire situation holistically is often the answer Considering that Cyaphas Modiba, South Africa's first black pilot had taken 86 hours in 1982 to get his licence on his own Cessna 206, still proves that where there's a will there's a way.

It is never appropriate to blame the student, especially not someone who's overwhelmed, disoriented and potentially compromised. It's always the right time to reassess the approach to training. Perhaps it's also 'in season' for a controversial piece of legislation about termination of training to be revisited?

This article appeared first on the author's LinkedIn platform.



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TRAINING

INSIDE THE WORLD OF AN **AIRCRAFT**

Since simulators were first used to assist pilots with mastering simple aircraft manoeuvres in the early 1900s, they have evolved into the fully equipped and highly technical pieces of kit that are used worldwide today.

Their use in modern aircraft training is now crucial for pilots and airlines.

When incidents in the air occur, it's largely the actions of the pilot that determine whether a flight lands safely or becomes a fatal situation. Simulators allow pilots to safely train for every possible eventuality, including engine failures, tyre blowouts, difficult weather conditions and bird strikes.

Flight simulators can also assist investigators, helping them to make sense of accidents after they occur while providing evidence that pilots were not at fault and did their utmost to protect passengers and crew.

Most recently, this was demonstrated following the famously flawless landing of US Airways Flight 1549 by Captain Chesley 'Sully' Sullenberger, and first officer Jeffrey Skiles.

Sully and Skiles ditched their aircraft in New York's Hudson River, saving all 155 people on board, after a freak bird strike took out both engines.

In the months that followed, investigators used simulator reenactments that helped to eventually prove the pilots had made the correct decision to land on water rather than attempt to return to a nearby airport.

This demonstrates how invaluable simulator training is for pilots and how essential it is to investigating incidents in the sky.



Early simulators were basic

One of the best-known devices was the Link Trainer, produced by Edwin Link in the United States in 1927. This comprised a basic metal frame painted in blue with a pneumatic motion platform driven by inflatable bellows to provide pitch and roll cues.

Initially, little interest was shown in simulators until World War II, when the Link Trainer became the principal pilot trainer. Around 10,000 were produced to train more than 500,000 pilots from the allied nations.

In 1954, the first of four simulators produced by Curtiss-Wright were bought by United Airlines at a cost of (US) \$3 million. Similar to early models, these simulators had the added benefit of visuals, sound and movement. They became the first examples of the modern flight simulators used for commercial aircraft.

Standardising flight simulators

Initially, flight simulators weren't regulated and, even for the same aircraft type, there were no two identical simulators. This issue caused concern for pilots and regulators, eventually leading to a



Artemis Aerospace flight simulator support and sales director Dan Frith takes us inside the world of aircraft simulator creation.

technical committee being set up under the umbrella of the IATA (International Air Transport Association) and an internationally recognised system of simulator standards and certifications subsequently put in place.

Types of simulators

Depending on the purpose there are three types of simulators: ATD (Aviation Training Device), FTD (Flight Training Device) and FFS (Full Flight Simulators).

Pilots are required to test their skills in various situations regularly. Everything on a simulator has to be an exact replica of the aircraft it represents, so attention to detail is critical. Even lever tensions on the throttles are adjusted to be identical to the real thing.

Unsurprisingly, building a simulator is expensive. On average, depending on the make and model simulators cost between (US) \$7.5 million to (US) \$12.5 million to produce.

Flight simulator manufacturing and maintenance

Simulator manufacturing is highly competitive and there is a constant pressure to reduce costs.

While OEMs, such as CAE, produce and distribute the bulk of simulators worldwide, refurbishing existing units or renovating parts to create a complete simulator offers a cost-effective solution compared to buying brand new.

With aircraft training devices running for up to 22 hours a day, 7 days a week, when defects arise this can seriously disrupt training schedules and result in extensive revenue loss.

Over the next ten years, it is estimated that there will be more than 255,000 new airline pilots with an additional 180,000 first officers training to become captains.

A SMART AIRCRAFT MAINTENANCE APP



It is specifically intended as an affordable tool for small and medium-size airlines, corporate, VIP, General Aviation, para-public and military fixed wing aircraft and helicopter operators as well as third party aircraft maintenance and repair organisations.

A novel aircraft maintenance project management app, eWork, has reduced maintenance completion and turnaround times by a quarter, while providing complete transparency of task status, the personnel and the equipment used in performing them.

eWork is a secure app-based solution developed by ADSoftware and designed to provide complete visibility, detailed monitoring and analysis of the airworthiness, engineering, logistics, tooling and cost management aspects of line and base maintenance.

It significantly reduces the potential for unexpected delays and unbudgeted costs that are typically incurred through the lags in conventional communications between aircraft operators, maintenance facilities and parts depots.

The app is designed to support the maintenance of aircraft anywhere in the world.

It is specifically intended as an affordable tool for small and medium-size airlines, corporate, VIP, General Aviation, para-public and military fixed wing aircraft and helicopter operators as well as third party aircraft maintenance and repair organisations. On average eWork costs a tenth of more complex and cumbersome IT tools.

Regional aircraft manufacturer, ATR has implemented eWork along with other ADSoftware modules in its airworthiness management unit and its maintenance and repair organisation (MRO).

ATR's MRO performs about 15 aircraft maintenance and service checks every year.

"Feedback we have received from ATR is that it has notably shortened maintenance tasks and improved productivity in the first year of use. For commercial aircraft operators this represents a significant saving in labour costs and ensures aircraft are returned to the line and generating revenue again much sooner. It provides tactical advantages for military operators by improving operational mission-readiness," said ADSoftware CEO Fred Ulrich.

ATR's decision to use eWork has been a game-changer for ADSoftware. "ATR recognised the value and has proved the robustness, functionality and benefits of the solution. As a result, we now have a growing customer base and strong order book," he said. eWork's customer portfolio includes Sabena Aerospace, Héli Union and the South Africa-based ACMI operator, Global Airways (it operates and maintains a fleet of A320s and A340-500s).

eWork is the product of a three-year development project that aimed to provide a secure, affordable, transparent and easy-to-use tool for managing and validating aircraft maintenance costs, tasks, parts inventory and personnel qualification.

As eWork is cloud-based and can be used on laptops, tablets and smartphones, it enables aircraft owners and operators to easily keep track - in near real time - of the progress and status of their equipment while it is undergoing repair or maintenance in their own facilities or at third party MROs.

Data captured by eWork can be downloaded and used to create the necessary aircraft, equipment and personnel logs and reports required by airworthiness authorities and personnel qualification and licencing bodies.



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GLOBAL drone awards

Recognising pioneering conservation work, lifesaving health operations and ground-breaking tech solutions

Identifying malaria mosquito breeding sites, delivering urgent health supplies to remote communities, tracking Pangolin poachers, locating people faster in disaster relief operations, measuring methane to reduce carbon emissions and educating children in the world of drones with a STEM-themed Mars flight training mission - are just some of the ground- breaking drone projects that were the recipients of the 2021/22 Airwards.

Over 120 global submissions were judged by 38 drone experts and business leaders that led to this year's 18 Airwards main category winners.

Airwards is the first global digital awards of its kind to identify, recognise and champion the breadth of positive drone use cases. Launched in 2020, the not-for-profit organisation Airwards is dedicated to demonstrating that 'Life's Better With Drones' recognising positive use cases and championing global best practice scenarios in which drones are helping industries solve problems and save lives.

Airwards is open to a range of individuals and companies from December to March each year, including drone specialists, start-ups and large corporations.

Each submission is benchmarked on three criteria: Innovation, Responsibility and Impactful, real-world solutions.

Airwards judges include business leaders, drone experts and industry specialists curated to reflect the diverse range of innovation and incredible work being accomplished by the international drone industry.

This year's 21/22 Airwards winners hail from around the world, including Malawi, Ghana, the Democratic Republic of the Congo, South Africa, Brazil, India, Vietnam, Germany, France, Spain, Australia, the UK and the USA.





CENTUM Research & Technology for Sensors and Payload

Richard Nichols, Airwards founder said, "We've been blown away by the breadth of drone work in the past year. Coming out of the pandemic hasn't been easy, but I think the winners all demonstrate the commitment - by companies of all sizes -

in providing lifesaving solutions with drones".

"The judges had a tough job determining the winners but all those recognised in this year's Airwards demonstrate the highest level of innovative, responsible and impactful drone work. We're excited to see all of these positive use cases flourish - pushing boundaries and improving the world we live

in - and to see what the next 12 months hold!"

The full list of 21/22 Airwards winners can be found here. https://www.airwards.online/winners21-22/all.

AND THE WINNERS ARE:

Airwards 21/22 Winners - Technology

- Sensors & Payload: CENTUM R&T for The fastest UAV's
 phone location system
- Software Captured data mgt. analysis: PlotBox for Drones: Future of cemetery management
- Software Enabling flight ops. mgt.: TechEagle for Saving Lives with Delivery Drone

Airwards 21/22 Winners - Operations

- Airspace Management: Queensland Uni of Tech. (QUT) for Australian Drone Facility Maps
- Delivery: Swoop Aero for Creating the future of air logistics
- Survey and Inspection: sees.ai for Electricity grid aerial inspection

Airwards 21/22 Winners - Supporting Services

- Consultancy: Hover UAV for BVLOS from Remote Operations Centre
- Training and Certification: RPAS Training Academy for Genesis Hub Drone Academy

Airwards 21/22 Winners - Industry/Field

- Construction and Planning: HEROTECH8 for Power Station Aerial Inspection
- Defence Security and Surveillance: ModalAI for VOXL CAM for smaller smarter safer robot
- Energy: Flylogix for Emissions Measurement Offshore
- Media Events and Creative: Mirragin for Elevate Sydney
 Drone Sky Show
- Medical and Healthcare: GLOBHE Drones for Maladrone
 Project

Airwards 21/22 Winners - Giving Back

- Conservation and Environment: Wildlife Drones for 'Protecting pangolins from poaching'
- Education and Research: Drone Legends for 'Drone Flight Mission!'
- Emergency Response and SAR: Zipline for 'COVID Vaccine Distribution Across Ghana'
- Humanitarian Aid and Disaster Relief: Swoop Aero for 'Creating the future of air logistics'
- Public Safety: Cyberhawk for 'How Drones Help Keep the Lights On'



DRONES

FIRST DRONE CAGE FACILITY

Fahari Aviation, a subsidiary of Kenya's national carrier, Kenya Airways (KQ), has launched the first drone enclosure facility in Kenya. The facility, termed as the Fahari Drone Cage will be used for training and testing of drones and drone equipment.

The facility, termed as the Fahari Drone Cage will be used for training and testing of drones and drone equipment.

Through the construction of the Fahari Drone Cage, Fahari Aviation has positioned itself at the forefront of exploring advanced future technologies in aviation and at the same time the promotion of safe and secure usage of Unmanned Aerial Systems (UAS) in Kenya.

Fahari Aviation is responsible for launching and implementing future aviation technologies and is part of the airline's strategy of

contributing to the sustainable development of Africa by championing new dimensions within the industry with the use of drones and unmanned aircraft.

At the launch retired major general Michael Gichangi said, "The future of aviation is based on identifying opportunities for innovation and diversification to build a resilient business that is committed to the sustainable development of Africa. We have over the years proved to be a leader in aviation innovation and it is this openness to innovation that has led to the establishment of Fahari Aviation and the first drone enclosure facility here in Nairobi - the Drone Cage.

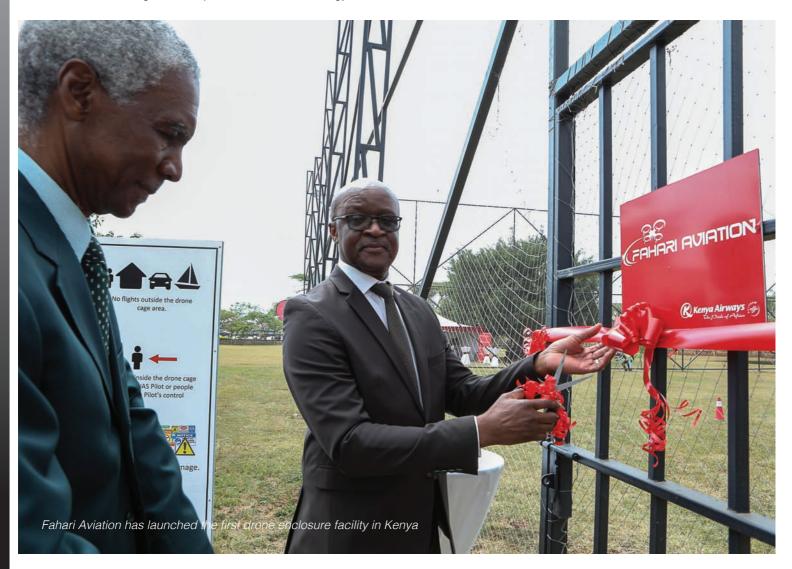
Through the Drone Cage, we hope to see enhanced innovation, research, and development of UAS technology in our communities through interactive work across partners, corporates, universities, industries and individuals."

To provide resources to learn and practice techniques and skills required for safe operations of drones, Fahari Aviation has in addition launched the Fahari Drone Club, a community for Unmanned Aerial

Systems (UAS) enthusiasts offering members a platform to connect and share best practices.

"Enabling an environment that will accelerate innovation, knowledge exchange and fast track the use of unmanned aircraft within the country and beyond is critical in exploring the drone phenomenon as we seek to innovatively find solutions that address some of our societal problems and pain points. The drone cage will provide a safe environment for practice and training while the Drone club will provide a platform for the drone enthusiasts to grow the UAS industry in Kenya and the region." said Hawkins Musili, general manager of Fahari Aviation.

"UAS are creating new opportunities for individuals and enterprises as the one of the most experienced aviators within the region, having a community of drone enthusiasts builds a strong foundation for us and like-minded people who want to bring out their ideas through UAS for the sustainable development of the region," he said.



AIRVAN AFRICA

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Ford GT40 If you love attention, drive a GT40

Price: For what have you Swap Value: R400 000



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Price: US\$ 930 000



*Classic 1948 Cessna 170 Immaculate example with all records from new A genuine collector's item

Price: R900 000

*2008 Mooney M20TN 770 Hrs All Components SNEW G1000 / GFC700 / TCAS / TKS / Oxygen No Damage The ultimate high altitude cross-country machine

Price: US\$ 325 000



2015 Airvan 8 2000 Hours TT Airframe 100 Hours TT on a factory Lycoming Engine G500 GTN650, TCAS, StormScope, EDM930 Ready to work or play Price: R780 000



*1967 Mooney M20F Executive 5330 Hours TT Airframe 885 Hours SMOH. Recent comprehensive once-over by SA Mooney

Price: R780 000



1942 Waco YMF 650 Hours TT Airframe Only 15 Hours SMOH on Jacobs R-755B2M Radial Engine Based in Australia Price: US\$ 275 000

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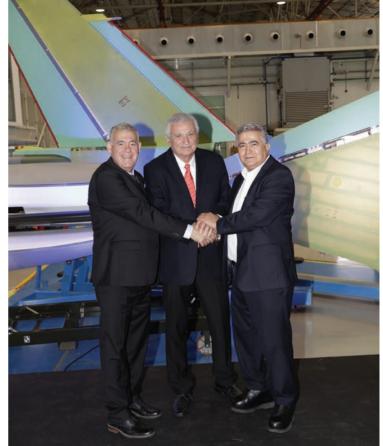
FIRST SETS TO LOCKHEED MARTIN

At a recent ceremony held at the Israel Aerospace Industries (IAI) wing assembly line, Lockheed Martin took delivery of the first sets of F-16 aerostructures including the F-16 conformal fuel tanks and the 200th F-35 fighter aircraft wing set was also delivered.

IAI is scheduled to produce a total of 811 pairs of F-35A wings, with a potential value of over (US) \$2 billion by 2034, after a contract signed in 2011.

IAI is operating a state-of-the-art F-35 wing production line, inaugurated in 2014, while continuously investing in automated systems, advanced infrastructure and technologies necessary to meet the aircraft's innovative design. The wings' upper and lower skins are made of composite materials, unique to the F-35, also made by IAI as part of the production contracts.

IAI has been manufacturing aerostructures for Lockheed Martin since the 1980s. With the new demand for the F-16 Block 70/72 aircraft, IAI recently re-opened the assembly lines for the F-16 wings, vertical fins and conformal fuel tanks. Prior to re-opening the F-16 assembly lines, IAI invested in modernising infrastructure, improving the work environment, and introducing new tools to produce fully compliant F-16 aerostructures. IAI also successfully re-established the supply chain of hardware suppliers to support the assembly lines, checked and verified tooling, carried out necessary first article inspections and conducted training programmes for the F-16 team.



(Left to right) IAI president and CEO Boaz Levy, Lockheed Martin Israel CEO Joshua Shani, chairman of the IAI board of directors Amir Peretz

"Lockheed Martin greatly values our long-standing relationship with the state of Israel and its defence industries and look forward to further expand our co-operations throughout all our key programmes," said Joshua Shani, chief executive Lockheed Martin, Israel.

"Delivering the F-16 aerostructures and the 200th F-35 wing to our partners at Lockheed Martin is a testament to the strong cooperation between our companies, and to the trust Lockheed Martin have given us. IAI's aerostructures production lines utilise innovative technologies that provide our customers with advanced capabilities.

We look forward to many more projects with Lockheed Martin and will continue providing leading solutions to the industry," said Boaz Levy, IAI CEO and president.

LIBYA TO HOST AVIATION EVENT

The Libya Aviation Forum & Expo will take place in Tripoli later this year. It will be the first aviation related event in the North African country since 2008.

Organised by Hormuz Tours and Events, the occasion promises to be action-packed. Already confirmed speakers include Eng. Mustafa Ben Ammar, vice president of the Civil Aviation Authority and Dr. Mohamed Bitelmal, chairman of the Airports Authority.

The event is supported by the Libyan Civil Aviation Authority and the Libyan Airports Authority and will take place from the 6th to the 8th of November, 2022 Tripoli, Libya.

It is expected to attract aviation professionals, expert and stakeholders who will take part in the discussion on issues affecting this sector and to shed light on the immediate and future needs of the aviation sector. It will include commercial, infrastruc-



ture, services and growth and will bring both private and public sectors, as well as international stakeholders. WHAT: Libya Aviation Forum & Expo WHEN: 06-08 November 2022 WHERE: EVENT VENUE: Corinthia Hotel, Tripoli, Libya CONTACT Mobile: +218944956070 Email: info@aero.ly www.aero.ly



LIBYA AVIATION FORUM & EXPO ملتقى ومعرض ليبيا الدولي للطيران

November 6th-8th 2022 Corinthia Hotel, Tripoli, Libya



www.aero.ly



Organizer : تنظیم Hormuz Tours & Events



MISSION POSSIBLE aviation career without experience

Many people believe that to work in aviation you must go through years of schooling and training. While some career paths in this industry require a lot of prior knowledge, others do not and anyone with enough passion and dedication can enter the industry with no prior experience.

FIRST STEPS

According to Kjell Mathisen, corporate training manager at Aviator Airport Alliance, a full-range provider of aviation services at 15 airports across the Nordics, the ground handling industry has plenty of opportunities for people, eager to start their career in aviation. "Flexibility, stress management skills and the ability to understand that safety comes first are the key personal qualities for someone looking to enter this fascinating industry," he said.

"There are a lot of different positions that do not require prior experience or knowledge, for example, ramp agents and passenger services agents to name a couple."

Fittingly to the name, ramp agents work on the ramp.

"Their main tasks are loading and unloading baggage. They also prepare for aircraft arrival and departure, drive baggage tugs, belt loaders, and stairs," Kjell said.

"Passenger service agents, on the other hand, work in check-in, gate or arrival service. Their main tasks are check-in of passengers, including document control, also boarding and deboarding of passengers."

BASIC KNOWLEDGE

The corporate training manager said that generally training takes around three weeks, with time for practical training varying in accordance to shift schedule. "After a month or two of training, new ramp agents can drive ground support equipment (GSE), some of which are heavy and complex. If needed at the station, agents will get push-back training after six months in service. Then they may drive a P/B Tug of 60 tons, pushing an aircraft of 200 tons from a stand," he said.

"Once trained passenger service agents acquire a different kind of skillset. They are trained to understand and deal with regulations of several airlines, even up to 15-20. They also are trained to manage large groups of travellers, both in check-in, boarding, and deboarding areas."

PREPARATIONS

To make sure that the company does not run into staffing problems, the preparations for the summer season start early.

"Summer is always the most active season for aviation in Europe due to increased traffic and number of passengers. For that, we have been getting ready since the end of 2021," said Christine Berg Wikstrand, HR manager at Aviator Sweden.

"In that time, we have already added somewhere between 250-300 people to the team. This is a huge number when compared to the previous year when we only added around 50," she said.

"We mostly needed additional check-in and gate agents and loaders."

She said a number of new team members have joined Aviator without prior experience in aviation.

"It is a great way to enter the industry and open new career opportunities. You just have to be dedicated to learning the needed skills to be successful in this industry."

Kjell Mathisen said with this though, explaining that over the years he has witnessed many incredible success stories.

"It is always incredible to look back and see that people who began working in our company as, for example, ramp agents, without any upfront experience, are now in managerial positions, leading teams, managing stations. For me, it is proof that with enough drive and perseverance one can build a successful career in aviation without prior knowledge or experience."

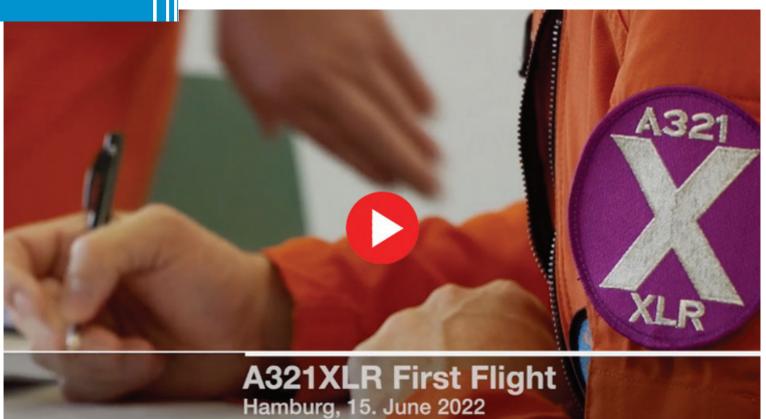


The Commercial Aviation Association of Southern Africa NPC (CAASA) is a non-profit organization formed in 1944 to promote and protect the commercial interest of the general aviation industry in South African aviation.

Our member companies include airport operators, non-scheduled operators, business aircraft operators, flying training organisations, aircraft maintenance companies and companies offering a whole range of supporting and retail services.

If you are a company trading or operating in general aviation, then you should be a member of CAASA.





First flight - A321XLR

Airbus' first A321XLR or Xtra Long Range single aisle successfully accomplished its first flight. The aircraft, MSN 11000, took off from Hamburg-Finkenwerder Airport at 11:05 hrs. CEST for a test flight which lasted approximately four hours and 35 minutes.

The aircraft's crew consisted of experimental test pilots Thierry Diez and Gabriel Diaz de Villegas Giron, as well as test engineers Frank Hohmeister, Philippe Pupin and Mehdi Zeddoun. During the flight, the crew tested the aircraft's flight controls, engines and main systems, including flight envelope protections, both at high and low speed.

Philippe Mhun, Airbus EVP programmes and services said, "This is a major milestone for the A320 Family and its customers worldwide.

With the A321XLR coming into service, airlines will be able to offer long-haul comfort on a single aisle aircraft, thanks to its unique Airspace cabin.

"The A321XLR will open new routes with unbeatable economics and environmental performance."

Entry into service is targeted for early 2024.

The A321XLR is the next evolutionary step in the A320neo singleaisle family of aircraft, meeting market requirements for increased range and payload, creating more value for airlines by enabling economically viable services on longer routes than any comparable aircraft model. The A321XLR will deliver an unprecedented single-aisle aircraft range of up to 4,700nm

(8700 km), with 30% lower fuel consumption per seat compared to previous-generation aircraft, as well as reduced NOx emissions and noise.

At the end of May, it is interesting to note that the A320neo family had accumulated over 8,000 orders from over 130 customers worldwide. A321XLR orders stood at more than 500 from over 20 customers.

To discover more about the A321XLR First Flight, please click here.



airmail GOODBYE COMAIR

Comair has voluntarily suspended and grounded all its operations due to an immense liquidity crisis. It is a heart-breaking tale to recount the meteoric ascent, descent and crash of the most wellrun airline that had a 40% share of the local aviation market. It is an intimate part of our aviation history. An iconic airline is in deep trouble, due to a combination of factors, which include mis-management, ill-timed decisions, the high price of aviation fuel, the exchange rate factor, Covid-19 and a complete lack of important aircraft maintenance procedures.

We must take into consideration that earlier grounding of the airline was due to safety issues. A typical Boeing 737 NG has 600,000 working parts, the CFM56-7B engines have over 15,000 working parts, which require expert maintenance and timeous repairs. Unless these procedures are rigorously maintained and enforced, breakdowns will occur impacting the financial structure of a struggling airline.

If the airline is financially defunct, the chances of resurrection are extremely remote. Due to the impact brought about by the Covid-19 pandemic, Comair entered into a voluntary business rescue plan on May 5, 2020.Since its inception in 1946 it took pride in the high level of skill amongst its airline pilot and flight operation personnel.

It's Boeing 737-800 simulator costing R75 million rand was the most sophisticated full flight commercial airline simulator platform in southern Africa. According to press reports Comair purchased an A320 simulator, this is puzzling due to the fact that it's entire fleet

consists of Boeing 737 aircraft. Purchase of Boeing 737-Max aircraft added to Comair's woes management should have considered leasing aircraft, as an alternative to purchasing planes at a time when liquidity became a life and death struggle.

Inadequate aircraft maintenance became a cardinal issue that led to the grounding of Comair by the CAA there were numerous level 1 and level 2 findings. Its aircraft fleet encountered occurrences ranging from engine failures, malfunction and landing gear indicator malfunctions amongst other issues.

During the Omicron related travel ban Comair lost R100-million rand, this was financially distressing for a company with an excellent track record of recording profits for 73 consecutive years. SAA was bailed out by taxpayers costing R38.4 billion rand.

Comair created jobs and helped the aviation industry without outside assistance. Unless there is an injection of financial intervention, one of the most venerable names in commercial aviation, will soon cease to exist, it will mark the end of 76 years of aviation for the iconic airline whose ramification will be felt across the entire aviation landscape.

Losing Comair will be tantamount to losing our version of PanAm. The distortion in our aviation structure is too ghastly to contemplate. We must, as a nation, make it our duty to save Comair.

Farouk Araie Gauteng.

A SAD DAY FOR A SOUTH AFRICAN AIRLINE

The 31st May 2022 marked a very sad day for the SA Aviation industry as Comair ta/ BA and Kulula suspended flights. Then it got worse as the Business Rescue Practitioners applied for provisional liquidation.

For a carrier that started in 1946 this was a major blow and the fall out is still being felt industry wide and will be for a very long time. So, what lead to this state of affairs?

Various theories have been put forward but it seems the following played a major role:

- 1. COVID-19
- 2. Post-Covid the lack of feed in from international carriers including BA PLC.
- The cost of the two B737 8 maxes still the subject of litigation with Boeing despite deposits that have already been paid. In fact, Captains Martin Louw and Johann Bruwer have already ferried ZS ZCA to SA shortly before the grounding. ZS ZCB was about to follow.
- The inability of the industry to achieve the right price point in an over-supplied business. Comair accounted for 40% of seat sales domestically in SA.
- 5. The lack of confidence after the CAA grounded the airline earlier this year which dented Comair's two great brands and led to cancellations at a very short notice.
- 6. A massive increase in the cost of jet A1.
- 7. A very tight domestic economy saw limited travel even after Covid.

They were tough and talented people at Comair and they gallantly fought on under CEO Glenn Orsmond, but the inability to secure



funding at the end of the day just tipped the scales against them.

As to the way forward, right now it is hoped that a section 311 offer of compromise may help as it's really will not helpful to sell off assets on a piece meal basis in this climate.

It must be pointed out at this juncture that quite a few of the planes in the fleet are owned not leased and those are not only the older 737 400s but the fairly new 800s as well.

From Mike Wright

CBD REVISITED

by Robert Sancetta

I last specifically addressed CBD (cannabidiol) in October 2019. It is time for a refresher, especially now that the FAA has issued official guidance on the use of CBD products.

As a brief review, CBD is a naturally occurring compound found in the flowers of the cannabis plant (marijuana). It's "purported" uses are well known, so I won't bore you with a lengthy discussion.

The 2018 Farm Bill includes a provision that legalises the cultivation of hemp, which is basically cannabis with a very low THC (tetrahydrocannabinol) content - less than 0.3 percent. Therefore, growing hemp is now legal and it "should" contain less than 0.3 percent THC.

As most pilots know, marijuana itself is not legal to consume while flying - in reality, the FAA expects that a pilot never consumes marijuana, on or off duty. Further, for all pilots subject to random DOT testing in Part 135 and 121 operations, a positive test for THC is a showstopper.

Many states have "legalised" marijuana, even though it's still, by federal law, a Schedule 1 drug of abuse - hence, federally, marijuana is still illegal. Although some states have legalized it individually, it does not make it acceptable for a pilot to consume marijuana.

In DOT testing, an on-duty positive test for any of the included substances - once confirmed as a true-positive through follow-up testing of the original sample - will result in the loss of both airman (pilot) and medical certificates. If a test was positive in an off-duty situation, such as at a hiring interview, then it is possible that the FAA may only revoke the medical certificate. Regardless, either outcome is a disaster for the pilot.

While the specifics of how these certificate revocations work is not germane to this discussion, suffice it to say that a pilot who has had certificate revocations would be very lucky to see a cockpit again for at least a year. Typically, it takes longer than that.

CBD products are unregulated.

The FAA recently issued formal guidance about the use of these products that basically mimics my October 2019 blog and what I have been telling all of my pilots for a long time (and I ask them to remind all of their pilot colleagues).

Basically, the FAA stance is that it cannot specifically disqualify a pilot simply for using a CBD product. However, the purity and actual THC content is not guaranteed in an unregulated substance.

I have worked with pilots who have had a DOT-positive test for THC after taking a CBD product that "assured" the consumer that there was no THC present or that any THC content would be so low that there could not possibly be a positive test for THC as a result of the consumption of that product.



WHO IS ROBERT SANCETTA? Dr. Robert Sancetta is a former DC-10 captain with 11,000 flight hours. He has worked as a Senior AME since 1993 and is appointed as AME Consultant to the FAA Federal Air Surgeon.

Buyer beware - for emphasis, I remind everyone that there are pilots who have received a positive test for THC after consuming a CBD product.

As I have stated before, and as the FAA now specifically states in its recent guidance, "A marijuana-positive DOT drug test resulting from CBD use (intentional or inadvertent) is treated as a positive test."

Therefore, while the FAA makes no stance about the legality of consuming CBD, it is very clear that a positive test for THC will be handled no differently than a positive test from intentionally consuming marijuana.

Another important point to remember is that two positive lifetime DOT tests for any of the substances tested is a permanent bar from that pilot ever engaging in safety-sensitive functions. No slack here. No flying ever again, and the person couldn't even work as a dispatcher or mechanic, for example (as these too are safetysensitive functions).

Apparently, there have been posts on pilot websites that CBD is great and claiming it may help with jet lag, etc. Don't buy that nonsense. All CBD does is risk a pilot's career. Is it really worth it? ** My recommendation is simple, and that is to avoid CBD products entirely.

*The full article appeared on the AIN online website with this disclaimer. Opinion expressed in this column are those of the author and not necessarily endorsed by AIN Media Group.

**The article has been shortened