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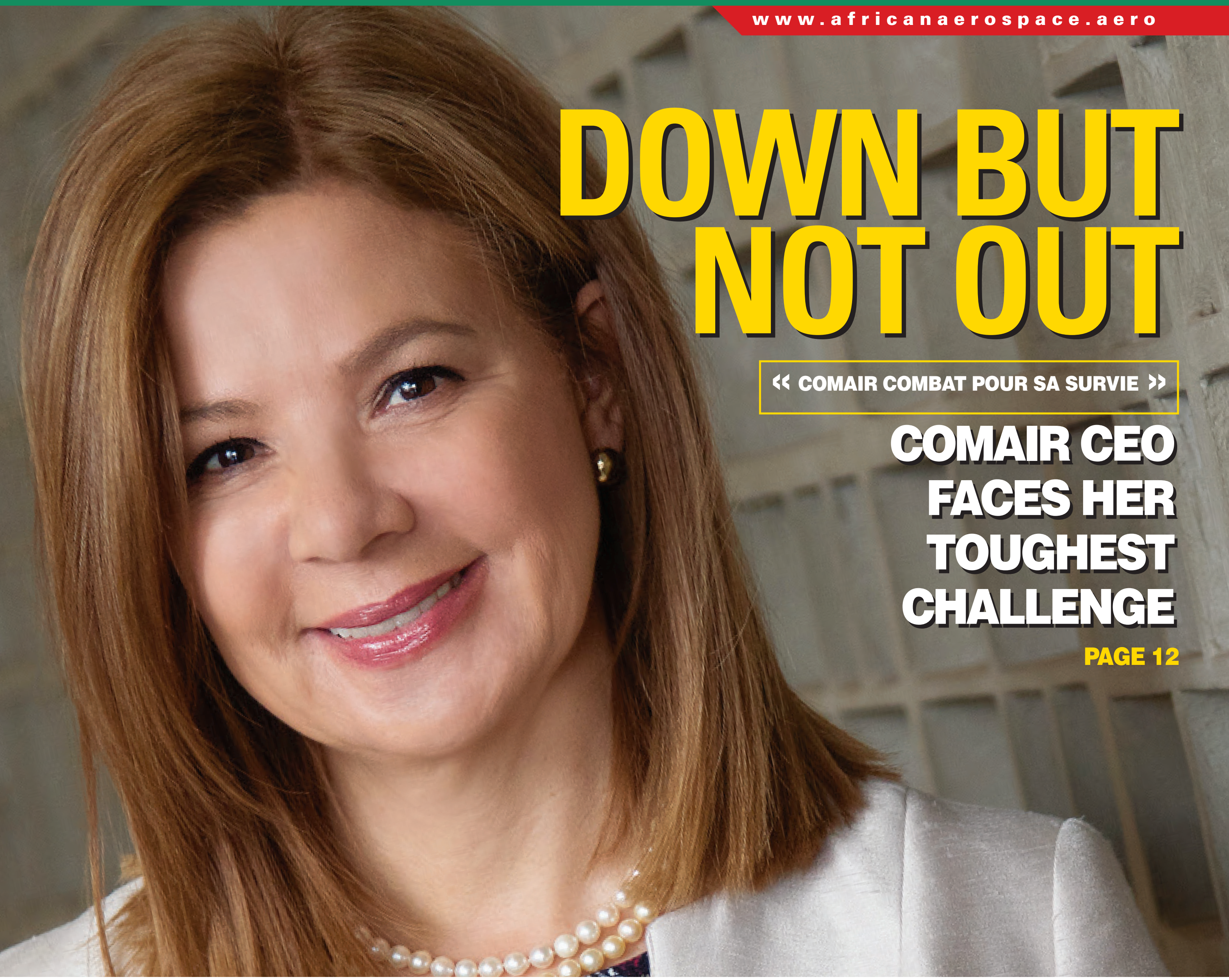

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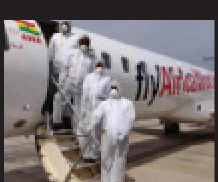

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COVER: Wrenelle Stander became Comair CEO in December. Now she faces her toughest-ever test to rescue the airline.

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Now is the time to grab the opportunity and fly into the future

With the Covid-19 pandemic still sweeping across Africa as we go to press, it may seem premature to be talking about recovery… but surely we must.

There is no doubt that the devastation that the virus has wrought will be felt for some time, and the loss of lives mourned. But, at the same time, leaderships – both of countries and businesses – must be judged by how they respond to the challenge.

Across the world, the aviation industry was probably the hardest hit and the International Air Transport Association (IATA) has worked tirelessly to have a consistent approach to call for government funding to prop up the industry and to help it rebuild.

In Africa, where many of the airlines already have government support, there are lots of other contenders for any available cash – and in many cases there is not much spare at all.

But the case for financial support for the industry in Africa is probably stronger than for most other places.

Africa is at a relatively early stage in its development of a trans-continental aviation market. There has already been excellent work done in bringing up safety standards to match those in other regions of the world.

Airlines have been introducing new models into their fleets with the promise of more to come; slowly there have been signs of international collaboration and cooperation with the deregulation and adoption of open skies to enable better connectivity; there has been work done collaborating on airspace; we have seen the world-class introduction of unmanned aircraft delivering medical supplies in Rwanda and Ghana, which is now being copied in the developed world.

All this cannot stop because of a virus.

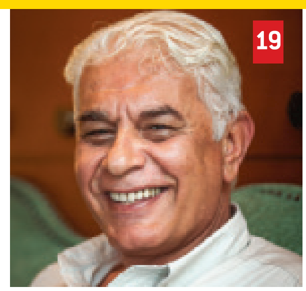
People talk of a "new normal". Although it is a ghastly phrase, we should be looking at the next stage as being opportunity. There is now a chance to look at how we structure government-supported businesses (airlines, airports, etc) and private companies to be competitive and world-class.

Now could be the time to support industry and restore air bridges by reducing fuel costs and the astronomic charges that have hindered growth for decades.

Let the industry lead the way in connecting African nations, expanding tourist and business opportunity, growing meetings, incentives, conferences and exhibitions (MICE) activities, and, above all, giving Africa a future it so surely deserves.

Stay safe.

Alan Peaford, editor-in-chief



Aircraft go but SAA fights on

Leasing companies have been calling back their aircraft placed with South African Airways (SAA) amid continued uncertainty over the airline's future.

In May it was announced that the airline would go and be replaced with a new version but that was changed when the business rescue practitioners asked for more time.

Meantime, SAA has returned 17 aircraft to lessors. The aircraft sent back include four A319s; three A340-300s; three A340-600s; five A330-200s and two B737s.

The airline is now left with three A319s, ten A320s, one A330-200, five A330-300s and four A350-900s.

The South African Government has denied a request to fund the business rescue.

Klasjet milestone

European business aviation company, KlasJet, has now completed more than 3,500 flights and flown 45,000 passengers to more than 80 countries and 200 airports worldwide.

While operating globally, since 2018, KlasJet has been seeing Africa as one of the most emerging markets. Its aircraft have already visited more than 10 countries and completed in excess of 120 flights in the region.

Deal off

Boeing has pulled out of its $4.2bn partnership deal with Embraer, which was planned to give the American manufacturer a bigger stake in the narrow-body regional jet market and develop new markets for the C-390 Millennium medium airlift and air mobility aircraft.

The joint-venture agreement had been under discussion for two years but, in a statement, Boeing said it had exercised its rights to terminate after the Brazilian company had not satisfied the necessary conditions.

Embraer said Boeing had "manufactured false claims as a pretext to seek to avoid its commitments to close the transaction".

It is understood that Embraer is seeking legal advice and expects to take action against Boeing for damages.

If the deal had gone through, Boeing would have owned 80% of Embraer's regional jet business.

Egyptian MoU

EgyptAir and Air Cairo signed a memorandum of understanding (MoU) in May to enhance strategic positioning, network and fleets, that is aimed at adding new customers to both airlines. The MoU includes schedule coordination from/to Alexandria, Sharm El-Sheikh, Hurghada, Assuit and Sohag airports as a first step to enhance the carriers' participation in further serving the civil aviation sector.

African space steps

Thales Alenia Space and ASECNA have confirmed the study for the satellite-based augmentation system (SBAS) for Africa and the Indian Ocean has taken a major step forward with validation of the system's architecture and geographic coverage.

The ASECNA programme is based on the European EGNOS system. In line with the ASECNA's strategic plan, the programme aims to enhance navigation and surveillance operations for all phases of flight, thus providing a significant and sustainable improvement in flight safety and efficiency over the African continent.

Loan for Austral

Air Austral has obtained an €86 million ($95.8m) loan from government and shareholders to face the Covid-19 crisis, and resume its operations.

The airline has negotiated with governments to postpone tax payments, social security contributions and various charges. It has implemented partial unemployment measures for most of its 950 employees.

The airline has started negotiations with its banking partners with the full support of the French Government, its major shareholder (Sematra) and other partners, for the setting up of a financial plan to face the Covid-19 crisis. The loan is seen as vital to support its activities until July.

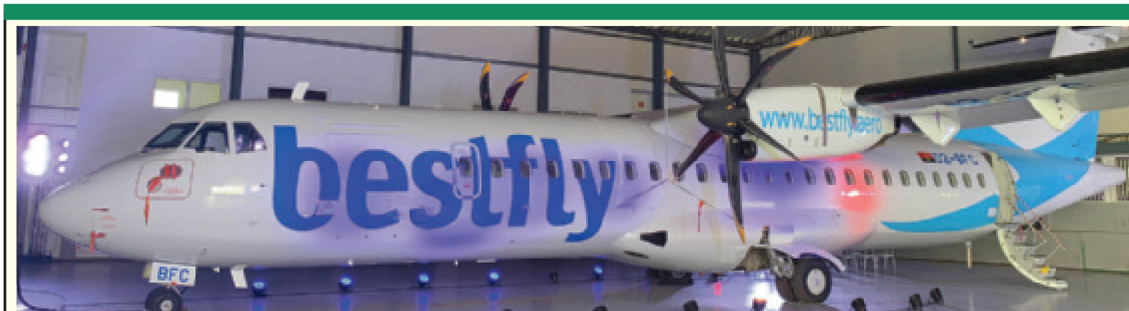
Paramount boxes clever in virus fight

Paramount Group, the African-based aerospace and technology company, has teamed up with emergency doctors at the Charlotte Maxeke Academic Hospital in Johannesburg, to design and produce a piece of kit that will help protect frontline healthcare workers when treating patients suffering from coronavirus.

The company has made available its resources – from aircraft for the delivery of medical supplies, to its manufacturing facilities and highly skilled engineers and technicians, for the production of medical equipment.

The 'intubox' provides a lightweight and transparent protective enclosure around the head and chest of patients, helping to limit contact during intubation, extubation and aerolysin procedures.

It can also be used for drug-resistant TB patients, and others suffering from Ebola.



Bestfly scoops three-year ExxonMobil deal

Angolan fixed-wing and rotary aircraft operator, Bestfly, has won a three-year contract to ferry ExxonMobil staff 200 miles from Luanda to its main offshore oil logistics base at Soyo, on the mouth of the Congo River.

Bestfly will utilise one of its ATR 72-600 turboprops, which can carry 70 passengers for the 45-minute flight, four times a week.

"The ATR is ideal for this mission," said Bestfly chief executive, Nuno Pereira. "We have already been serving all of the international oil and gas companies with their repatriation plans during the Covid-19 outbreak and we have had our whole fleet available to give support to get people home."

The contract has a potential two-year extension option.

Inaugural flight

The first of 12 A-29 Super Tucano light-attack, combat and reconnaissance aircraft for the Nigerian Air Force (NAF) successfully completed its inaugural flight in April.

The landmark was announced jointly by Embraer Defence and Security and Sierra Nevada Corporation (SNC).

The full fleet of A-29 Super Tucanos is currently in production by SNC and Embraer at the Jacksonville facility, with delivery to the NAF expected on schedule in 2021.

The aircraft will now begin mission modification and final testing in Centennial, Colorado. Following final testing, before delivery, NAF pilots will train in the aircraft.

SkyCourier delivers

Textron Aviation has announced the successful first flight of its new twin utility turboprop, the Cessna SkyCourier.

"The aircraft performed exactly as we expected, which is a testament to the entire team of men and women who worked together to prepare for this day," said Ron Draper, president and CEO, Textron Aviation.

"I'm proud of the way the team has persevered through disruptions caused by the Covid-19 global pandemic and remained focused on getting us to this point.

"The Cessna SkyCourier will be an excellent product in its segment due to its combination of cabin flexibility, payload capability, superior performance and low operating costs."

Leonardo jet trainer is certified for global market

The latest military trainer designed with African air forces as a target has been certificated by Italy's Directorate for Air Armaments and Airworthiness – the Italian Ministry of Defence's certification authority.

Leonardo confirmed the certification award for the M-345 programme, which it says, is the result of intense activity. Some 200 dedicated flights have been logged, and there has been critical support from the Italian Air Force's Flight Test Centre, the 61st Wing, and the 10th Aircraft Maintenance Unit.

Leonardo aircraft division MD, Lucio Valerio Cioffi, said: "The achievement of the initial certification for the M-345 – unique in its segment for acquisition and operational costs – confirms the aircraft features excellent characteristics and capabilities and makes it available for the international market."

Airbus milestone

Airbus has achieved the first ever fully automatic air-to-air refuelling (A3R) operation with a boom system.

The flight-test campaign, conducted earlier in the year over the Atlantic Ocean, involved an Airbus tanker test aircraft equipped with the Airbus A3R solution, with an F-16 fighter aircraft of the Portuguese Air Force acting as a receiver.

This milestone is part of the industrialisation phase of A3R systems ahead of its implementation in the A330 MRTT tanker development.

The campaign achieved a total of 45 flight-test hours and 120 dry contacts with the A3R system, covering the whole aerial refuelling envelope.

The certification phase will start in 2021.

Cargo chain call

The International Air Transport Association (IATA) and its members have renewed their call to governments to take urgent measures to ensure that vital air cargo supply lines remain open, efficient and effective.

"Air cargo is a vital partner in the global fight against Covid-19 but we are still seeing examples of flights filled with life-saving medical supplies and equipment grounded due to cumbersome and bureaucratic processes to secure slots and operating permits," said Alexandre de Juniac, IATA's director general and CEO.

"These delays are endangering lives. All governments need to step up to keep global supply chains open,"

Jet delivery

Embraer delivered 14 jets in the first quarter of 2020 – five commercial aircraft and nine executive jets (five light and four large).

As of March 31, the company's firm order backlog totalled $15.9 billion.

Embraer seasonally has fewer deliveries during the first quarter of the year and, in 2020 in particular, deliveries were negatively affected by the conclusion of the separation of Embraer's commercial aviation unit.

Phenom permit

Embraer Executive Jets has said that the new Phenom 300E – the fastest and longest-ranged single-pilot jet, capable of reaching Mach 0.80 – has been granted its type certificate by the National Civil Aviation Agency of Brazil (ANAC), the European Aviation Safety Agency (EASA) and the Federal Aviation Administration (FAA).

The new Phenom 300E achieved its certification goals with an intracontinental range of 2,010 nautical miles, a high-speed cruise of 464ktas, a maximum payload of 2,636lb (1,196kg), a take-off distance of only 3,209ft (978m) and an unfactored landing distance of 2,212ft (674m).

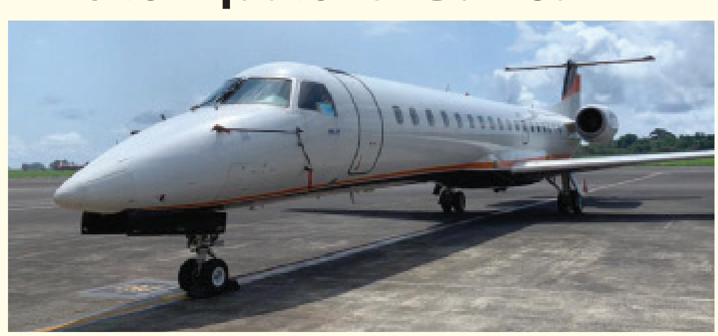
In addition, the aircraft received both avionics upgrades and enhancements that lowered cabin noise levels.

First multi-mission Embraer ERJ145 to Equatorial Guinea

Switzerland-headquartered Vertis Aviation has added an Embraer ERJ145 to its Vertis charter management programme (VCMP). Based in Malabo, Equatorial Guinea, the privately owned ERJ145 has a range of some four hours and is strategically positioned to serve increasing demand from customers requiring group passenger transportation or cargo lift within the western and sub-Saharan African regions.

"The African commercial network is renowned for its inability to connect major economic hubs easily and conveniently. This has driven the rise of business aviation on the continent and, as economies continue to expand, the need for access to aircraft that can move goods and people from point to point, rather than via convoluted routes, is imperative," said Catherine Buchanan, chief operating officer.

"The chaos being caused to the commercial airline industry by the Covid-19 pandemic is exacerbating the limited nature of these services. We are filling a gap by providing access to an aircraft with the capabilities and reliability of the ERJ145."



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Africa was late to start feeling the effects of the Covid-19 virus – but a number of its most populated nations were hit with a vengeance. As the continent reels from the pandemic, **Alan Peaford** *argues that emerging from the lockdowns and crisis could offer a new start for Africa's aerospace and defence industries.*

Africa could rise stronger from the Covid crisis

African airlines have never been in a strong position as far as global aviation goes. As the coronavirus pandemic entered the continent, the industry in Asia, Europe and the Americas was licking its wounds and trying to work out how it could recover.

The International Air Transport Association (IATA) chief economist, Brian Pearce, who along with the organisation's CEO, Alexandre de Juniac, had been monitoring the global scene and appealing to governments to recognise the unique value to the world economy from aviation and to help keep the industry alive, estimated that 2020 – the worst year ever in aviation history – would see African airlines make a combined loss of more than two billion dollars.

"Border closures have all but stopped flights and international donors will be needed to supplement the limited means for the region's governments to provide relief packages," he said.

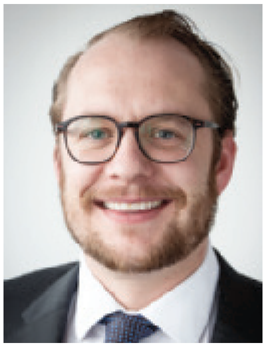
Countries like France, Germany, the US and Singapore were reporting huge cash bailouts to prop up airlines and the broader supply chain. Cash is king in the aviation industry and, as the pandemic hit and aircraft were grounded, it has all been about cash reserves.

Very few African airlines have reserves of anything more than a few weeks.

The secretary general of AFRAA – the industry body for the African airlines – Abderahmane Berthé recognised the crisis immediately and developed a recovery plan involving airlines, airports and governments.

"The availability of liquidity is the main issue to be addressed for airlines to survive and restart their operations. Without it, they can simply not survive this pandemic long enough," Berthé said.

Abderahmane Berthé: "The availability of liquidity is the main issue to be addressed for airlines to survive and restart their operations. Without it, they can simply not survive this pandemic long enough."



Jens Ziesel: "The visa-free travel and the bilateral agreements between the African countries will lead automatically to increased air travel."

He joined IATA in calling for African governments to consider a bailout and stimulus package that compensates for the significant losses, reduces the burden of ongoing operating costs, and subsidizes the industry's survival and recovery."

AFRAA's impact assessment analysis showed a 90.3% year-on-year passenger traffic reduction for the month of May and a likely revenue loss of $8.103 billion for the year.

However, as AFRAA called on international institutions to support the industry, some big players were already talking up the opportunity for African airlines.

The 'open skies' single African air transport market (SAATM) agreement is seen as excellent timing for stimulating regional traffic and, without the burden of legacy aircraft and old technologies, the new African carriers could grasp the opportunity.

❑❑❑❑❑

Embraer, with 54 operators in 27 countries in Africa, – the second largest original equipment manufacturer (OEM) on the continent after Boeing – believes that the number of airlines will drop. "Those that don't have support from government, or that didn't have a strong balance sheet, will not prevail," said Raul Villeron regional vice president for Middle East and Africa.

"They will really go down or bust. And then the other airlines that remain in the market will have less competition and will probably be in a very good position.

"Keep in mind that oil prices are lower. Ownership costs will be lower, so it's a perfect environment in which to operate. The question mark is demand. And if you have the right capacity for the right demand, you will be making a lot of money."

Collins Aerospace – now part of the third largest OEM in the world – has identified the potential for Africa. "The visa-free travel and the bilateral agreements between the African countries will lead automatically to increased air travel, and support national economic developments, and this will lead to accelerating the commercial aviation sector," said Jens Ziesel, sales director for Africa.

"We see the big benefit of skipping certain areas or investments, which are not necessary anymore," he added. "That is the lessons learned from what the airlines have done in Europe or around the globe. They don't have to do that now. African aviation will save money and not have to invest in things that are not up to date anymore," he said. ■

Elmar Conradie is the CEO of South African low-cost-carrier (LCC) FlySafair. As South Africa entered its ninth week of lockdown, he talked to **Guy Leitch** *about the prospects for his airline and how it was responding to the Covid-19 crisis.*

FlySafair battens down the hatches

Elmar Conradie: "By the end of the year we are hoping that we will be at about 60 to 65% of capacity."
PICTURE: GUY LEITCH.

GL: Your competitors, British Airways/kulula.com and South African Airways (SAA), are in business rescue, and SA Express is being liquidated. How are you coping with the lockdown?
EC: We have been fortunate in that we went into the lockdown in quite a strong cash position. So we can hold out for quite a while.

GL: Has FlySafair had any relief on its aircraft leases – are they all in-house with your investment company ASL?
EC: Not all our leases are with ASL. We have negotiated with our lessors and arranged slightly different terms with each, depending on what their objectives and allowances are. Effectively, the agreements provide some help on deferment terms to help with cashflow, but the money is still due.

GL: How are you handling the Covid-19 crisis in terms of your staff and salaries?
EC: When the lockdown started, we had just over 1,200 employees. At the end of April we paid all our staff in full. However, from the beginning of the second lockdown period in May, all of our staff are now on unpaid leave, unless they have paid leave due, which we will pay them for.

GL: Safair has been around for more than 50 years providing maintenance, wet leasing (ACMI) and contract flying, particularly with your Hercules fleet, which was, I believe, the largest in the world. Does the current crisis in the lower margin airline industry make you consider going back to your old business model?
EC: We are fortunate in that we still have a second small stream of income through our contract operations, doing mainly aid and relief work in Africa. Right now we are naturally trying very hard to see whether we can expand on that, but we are finding that, throughout Africa, it's very difficult to do any form of business at this stage. There are just so many restrictions, and every country has different rules.

GL: Can you give us some examples?
EC: Yes, every country has different rules regarding quarantine and requirements for bringing crews in and out. Some require quarantine, some require health checks – yet others don't.

GL: Will you be providing any incentives for people to start flying again?
EC: We will provide a further discount to encourage people to use the vouchers we issued them for cancelled flights. And then we will have to start looking at what other options there are to encourage passengers to start flying.

GL: How long do you think it will take for the industry to get back on track and become viable again?
EC: I think that once the regulations allow us to start flying passengers for business, most airlines will only be able to fill about 30% of their seats. By the end of the year we are hoping that we will be at about 60 to 65% of capacity. But I don't see us fully recovering to where we were within the next 18 months to two years.

FlySafair profile

FlySafair is based in Johannesburg. It is a wholly owned subsidiary of Safair. The carrier's inaugural flight took place on October 16 2014 and its fleet comprises Boeing 737-400 and 737-800 aircraft.

Domestic destinations served include Cape Town International Airport, King Shaka International Airport in Durban, East London Airport, George Airport, OR Tambo International Airport in Johannesburg, Lanseria International Airport in Johannesburg, and Port Elizabeth Airport.

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Wrenelle Stander became co-CEO of South Africa's Comair in July 2019 and was promoted to group CEO in December that year, succeeding industry veteran Erik Venter. She took the helm at a turbulent time, with a series of exceptional events taking a harsh toll on finances. Now, as **Victoria Moores** *reports, Covid-19 has proved to be the final straw, pushing Comair into business rescue.*

Blow by blow – Comair in crisis

Things were going well. Comair had an unblemished financial record, its fleet renewal was progressing, it had won legal damages from South African Airways (SAA), was transitioning to a more reliable maintenance provider, and had diversified through a series of acquisitions.

Unfortunately, the tide was about to turn.

Comair, which operates as low-cost-carrier (LCC) kulula.com and a British Airways franchise, had been profitable every single quarter for 73 consecutive years.

However, in December 2019, the company posted a R564 million ($36.5m) interim loss, after costs rose 14% and revenue grew by only 3%.

By May 2020, the company had entered business rescue, the South African equivalent of administration. It all happened very quickly.

"Since I've taken over as CEO it has been a crisis a month," Stander said.

The first blow was the Boeing MAX grounding. Comair had ordered eight MAXes to replace five owned 737-400s. The first new aircraft had arrived, a second was about to be delivered and a third was on the production line… then the type was grounded.

Cash was tied up in MAX down-payments ($45 million), replacement aircraft had to be leased in ($6.5 million) and maintenance costs spiralled ($14 million).

Stander said the MAX grounding led to "punitive costs and disruption to fleet availability". Comair deferred its remaining five MAX deliveries to 2024-25, accelerated its compensation talks with Boeing and is exploring legal options. "It is hampering our fleet forecast, because we don't know when it will be in service again," she said.

Meanwhile, Comair's far less profitable rival, South African Airways (SAA), was battling its own storm. SAA entered business rescue in December 2019. Normally, this would bode well for a lean and agile competitor like Comair, but not this time.

Continued on Page 14

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Comair's two airline brands – BA and kulula.com – form the lion's share of the group's business, giving the company a solid footing across both the leisure and business markets.

"Having the two brands means we are able to operate across two completely different market segments, so we can straddle both low-cost and full-service," Stander said.

The BA franchise is well established as a full-service airline, with a generous seat pitch and on-board meals, which translates into very good yields. BA holds a 10% equity stake in Comair and has a seat on the group's board.

Meanwhile, kulula.com made a name for itself as South Africa's first low-cost carrier. The airline initially attracted leisure travellers, but its customer base has since grown to include small businesses and government officials. ■

CONTINUED FROM PAGE 12

Comair did gain from some of SAA's network cuts, but it had won an unfair competition case against SAA in February 2019 and been awarded a R1.1 billion ($70m) settlement.

SAA was ordered to pay Comair in regular instalments through to July 2022, but it defaulted in December 2020, after entering business rescue, forcing Comair to write-off R790 million ($51.2m) of the settlement. This accounted for R450 million of the R564 million interim loss. Stander said Comair will still "aggressively pursue" the money.

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Meanwhile, SAA Technical had been Comair's maintenance partner for decades, but Stander said its timings could be unreliable, affecting Comair's operational performance. Comair decided to transition line maintenance to Lufthansa Technik to improve dispatch reliability, but this also came with a price tag. It will be up to two years before this transition pays off, because of initial set-up costs.

In the face of all these exceptional headwinds, Comair began implementing a turnaround plan. Then Covid-19 struck.

Comair entered the crisis with a fleet of 26 Boeing 737s and a diversified business, including the Altitude Training Academy (Alt.Academy), caterer Food Directions, airline-lounge brand SLOW Lounges, IT provider Nacelle, and a series of tourism brands. Comair was also acquiring 100% of Star Air Cargo and Star Air Maintenance, bringing heavy maintenance capability back into the group.

But Covid-19 took a rapid toll on the business. On March 23, Comair announced that it had

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Stander: a CEO with wide experience

Wrenelle Stander is a switched-on businesswoman, who caught the aviation bug about 29 years ago. "It started when I did my master's degree in business administration. My focus was entirely on the airline industry and aviation," she said.

After studying her MBA in England, she did an internship with British Airways (BA). Little did she know that she would ultimately end up running BA's South African franchise.

After her BA internship, Stander joined the South Africa Department of Transport, where she worked on economic regulation and bilateral air service negotiations.

"While I was with the department, I was a member of teams that partially privatised the Airports Company of South Africa (ACSA) and also set up the Civil Aviation Authority (CAA) at arm's length from the government. I subsequently went on to run the air navigation business and I worked at the CAA, so I'm no stranger to the aviation industry."

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To be precise, Stander was managing director of South Africa's Air Traffic and Navigation Services Company (ATNS), deputy CEO of the South African CAA, director general at the Department of Transport, and chief director for aviation and maritime regulation at Sasol Gas. She has an exceptionally strong aviation CV.

After a stint as executive director of Comair's airline division, Stander was named Comair joint CEO, alongside Glenn Orsmond, in July 2019, and was promoted to group CEO in December 2019.

"Running a state-owned enterprise and running a competitive business are very different skills," she said. "Our market is so competitive that if we dream about adding a frequency to 'Point X', the next day FlySafair will do it first. We have to dream a bit faster."

Stander has two passions. She wants the airline to become more customer-facing and is "obsessed with digital enablement". This may seem contradictory, but her overall aim is to create a better customer experience. This means getting the basics right.

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In 2019, Comair launched an on-time performance (OTP) challenge, partnering up with Alaska Airlines as a mentor airline. "We went and saw them, they came and saw us," Stander said. "They were absolutely incredible with their support."

Regular meetings were held to analyse every delay and look at what worked. "We could not fix on-time performance without all the teams collaborating," Stander said.

For three months, Comair offered an incentive scheme to all staff. If the airline hit 85% OTP, employees would get R500 ($33.00). At 90%, this doubled to R1,000 ($65.00)

"Every day we'd put up what we achieved. The whole company knew what the on-time performance was the day before. It was a very energising three months," Stander said.

"It's win-win, because the trouble with chronic delays is that it costs you money. What we saved from the delays, we were actually able to channel positively into people's pockets."

Comair improved its on-time performance from the mid-70s to the low-90s, pushing up the company's net-promoter scores (NPS).

"The minute we lifted on-time performance, the NPS shot back up again," she said. "People expect on-time performance. All the other things are add-ons, but the main product you are selling is departing and arriving on time." ■

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started redundancy talks, as part of its turnaround plan. On March 27, the carrier – and all other South African airlines – was ordered to stop flying. On April 3, Comair terminated its Star Air Maintenance and Star Air Cargo acquisition, along with the disposal of some of non-core businesses. On May 5, Comair entered business rescue.

"Now that the phased lockdown has been extended, the grounding is likely to endure until October or even November. These extraordinary circumstances have completely eroded our revenue base, while we are still obliged to meet fixed overhead costs. The only responsible decision is to apply for business rescue," Stander said on May 5.

At the time, Stander said Comair "remains solvent" and refinancing talks were under way, but business rescue was "necessary" to quickly push through Comair's turnaround plan and prepare for an operational restart once government sanctions were lifted.

"Through this process, we intend to right-size our operations to be more efficient, agile and customer-centric. This includes, but is not limited to, reconfiguring our network and fleet mix, reviewing portfolios and joint ventures, increasing digitisation of the business, and new product development and delivery," Stander said.

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By now, both SAA and state-owned South African Express (SAX) were also in business rescue. The South African Government had announced plans to revive SAA in a new form, while state-owned SAX was slated for liquidation.

But Comair has, historically, been a much more successful and stable airline than its government-owned competitors. On May 19, Comair business rescue practitioners, Shaun Collyer and Richard Ferguson, said there were "reasonable prospects" for the company to be rescued.

Collyer stressed that Comair was not "factually insolvent", with R7.42 billion in assets and R5.48 billion in liabilities. The airline is also well-placed with 39% domestic market share, "immense goodwill" and a longstanding reputation.

"It was financially distressed because there was insufficient cash to pay ongoing costs and obligations and, with its flights grounded for an uncertain period, no opportunity to generate revenue," the business rescue practitioners said on May 19.

Comair's business-rescue plan was slated for publication on June 9, 2020, with a vote scheduled for June 24. The business rescue practitioners said the strategy will need buy-in from all stakeholders, along with post-commencement finance.

"The last few months have been particularly eventful," Stander said, on March 11. "Comair has been having some really, really strong headwinds. We have had some really big uncontrollable items that have had an impact on our performance." ■

Das es Salaam-based Precision Air's roots date back to 1987, when a former East Africa Airways pilot set up a crop-spraying operation. In 1993, the airline took on its current name and started operating ATRs. Group managing director and CEO, Patrick Mwanri, explained to **Victoria Moores** *how he is now leading the airline through its next chapter – emerging from the Covid-19 downturn.*

BAPTISM OF FIRE FOR PRECISION'S CHIEF

Covid-19 has caused a sharp drop in traffic for Tanzanian carrier Precision Air, creating a tough backdrop for Patrick Mwanri's first year as CEO.

"It has been a very challenging moment, with a lot of uncertainty," Mwanri confessed. Passenger numbers between March and May 2020 were 81% down – and 92% lower than forecast. Interline and codeshare traffic also plummeted by 60%.

Precision normally operates two ATR 42-500s, two ATR 42-600s and five ATR 72-500s to 13 destinations from its Dar es Salaam home base.

However, the coronavirus forced the airline to cancel all its regional flights to Nairobi (Kenya) and Entebbe (Uganda), which were expected to carry 35,229 passengers in April and May.

Likewise, Precision was unable to operate tourist flights to Zanzibar, Arusha and Serengeti – and Kilimanjaro frequencies were reduced – costing another 20,272 projected passengers.

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Domestic flights fell to 253 rotations, 37% down from the 401 that Precision normally operates. "This will result in a decline of projected [domestic] passenger numbers from 26,142 to 11,073, which represents a 58% fall from the projected number in the 2020 budget," Mwanri said.

In response, Precision's operational fleet was slimmed to just two ATR 42-500s during the downturn. At the time of writing, it was progressively returning some services, with daily load monitoring and fortnightly capacity reviews.

This baptism of fire came just a few months after Mwanri was named full CEO in November 2019, but fortunately he is no stranger to the airline – or to tough challenges.

Mwanri grew up in Tanzania, where he studied chemistry, physics and mathematics, before moving to Russia to study computer science and engineering… in Russian, after just one year of studying the language.

"It was good, very interesting. I had a lot of support from my Russian colleagues," he said. "In the beginning, it was tough to understand the subject, but I kept with it."

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In 2001, he returned to Tanzania and took a job with ground-handler Swissport. "They wanted graduates with some computer background, because they were putting [equipment from air transport IT specialist] SITA, in place. After that, I was promoted and went to load control."

Swissport performed ground-handling for Precision Air and, in May 2004, Mwanri was employed directly by the airline. He progressed from dispatch to crew scheduling and administration manager, then to director of quality, safety and environment, while also studying a part-time MBA in aerospace management in Toulouse (France).

In early 2019, Mwanri became group acting managing director and CEO, and he was subsequently promoted to hold the role permanently.

Before the Covid-19 crisis, Mwanri had formed a five-year strategy, which would see Precision rationalise its network to cut losses and expand to domestic destinations – such as Iringa,

Mbeya, Katavi and Musoma – spurred by the government's airport-upgrade programme. Tourism flights also still offer "big potential" for the company.

Precision was also hoping to add a KLM codeshare on Dar es Salaam-Zanzibar, joining existing network partners Kenya Airways and Etihad Airways.

Turning to the fleet, Precision had planned to dispose of its two ATR 42-600s – in favour of two ATR 72-500s that were scheduled for delivery in 2020 and 2021. Mwanri said the -600s have proven expensive to run.

However, this strategy has now shifted. "With the current effect of coronavirus, we will not be able to return them [the ATR 72-600s]. Also, the plan to bring in new aircraft has been put on hold as we monitor how the tourism industry will open up," Mwanri said.

Meanwhile, the Tanzanian market continues to evolve, with the withdrawal of Fastjet, and Air Tanzania moving into Boeing 787 operations. Rather than competing, Mwanri said Air Tanzania and Precision complement one another, whereas smaller airlines like Coastal Aviation, Auric Air and ZanAir are rivals in the tourism market. "If you put all of them collectively, they also pose a challenge to us." ■

> It has been a very challenging moment, with a lot of uncertainty.
>
> PATRICK MWANRI

Alves takes up the MRO challenge

Precision Air is planning to secure European Aviation Safety Agency (EASA) approval for its maintenance operation over the next few years and is also training up young technicians.

"The challenge that I got from the board of directors when I joined the airline was to make it [maintenance] a profitable business," Precision Air head of maintenance, Pablo Alves, said.

Precision built a hangar six years ago, but Alves said the facility is not used to its full potential. The airline is, therefore, looking to turn maintenance into its own profit centre, which will take on more third-party work.

"The best thing to be done is to separate maintenance from the operator side and make it an MRO, still giving the same service to Precision Air," Alves said. This separation might make it easier to secure work from rival Tanzanian airlines.

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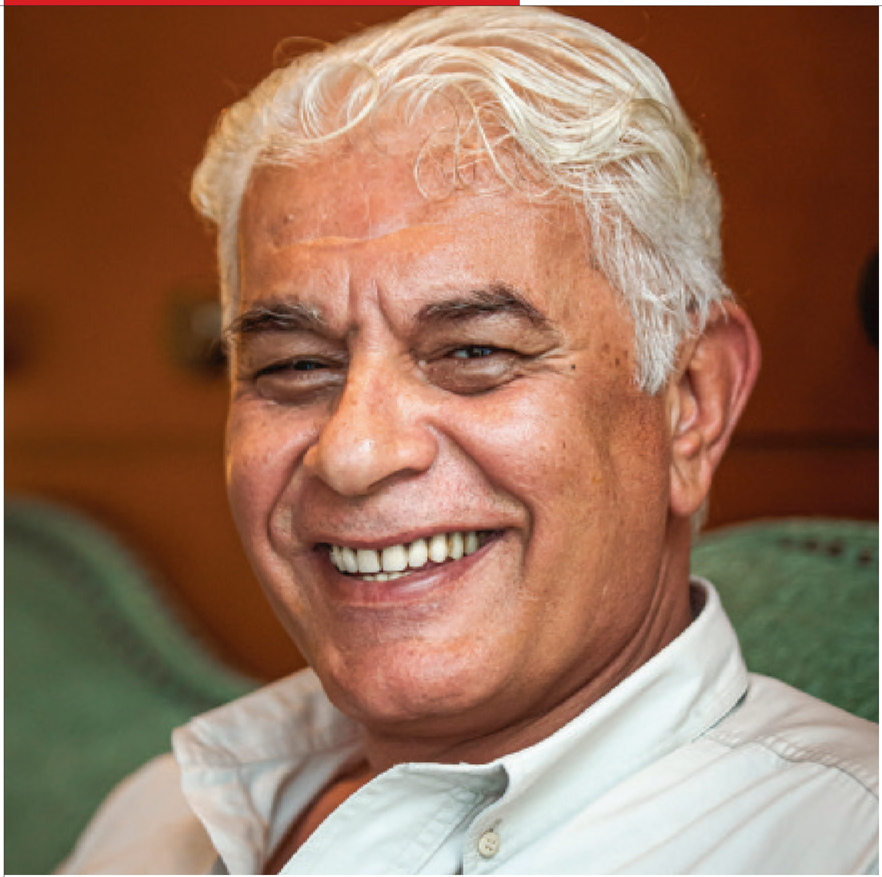
Precision Air's maintenance division has already invested $350,000 in Seabury's Alkym maintenance management and control software, which went live in November 2019, as part of this strategy.

The company is also in talks with Italian MRO provider, EU Wings, to gain experience in EASA-approved line maintenance, before seeking EASA Part 145 approval for its own MRO operations.

"We predict that, in another couple of years, we might be in a position to call for the EASA assessment," said Alves.

As part of the ramp-up, Precision Air is offering three months' work experience to local colleges and 23 apprentices have just completed their first year of a three-year scheme, paving the way for them to qualify as licenced technicians.

In light of Covid-19, some of this strategy may be delayed. "The plan is still there, but implementation may come later," said Precision Air CEO, Patrick Mwanri. ■



> "I will make a lot of noise before I die. I'm going to the minister, the prime minister, the president, and after that I'm going to God."
> YOSSREY ABDEL WAHAB

Nile's tide is on the turn

Even before the current Covid-19 crisis, which has seen airlines all over the world seriously affected, Egyptian airline, Nile Air, had paused its expansion. Managing director, Yossrey Abdel Wahab, explained why to **Martin Rivers**.

In recent years, Nile Air had seemed to be a rare bright spot in Egypt's civil aviation market, spreading its wings even as the country grappled with a series of political and security crises.

Former boss, Ahmed Aly, attributed the airline's success to its varied customer base of business travellers, pilgrims, tourists, and those visiting friends and relatives.

Under his watch, the full-service carrier grew its fleet from two to seven aircraft, while launching a host of new routes.

But the expansion ground to a halt in 2017 and Aly's successor, Yossrey Abdel Wahab, is far from convinced about the wisdom of the strategy.

It might have worked in less volatile times, he said, but with EgyptAir under pressure, the government is taking what many see as an uneven approach to traffic rights.

"The flag-carrier has been going for our destinations," Wahab complained. "[Before the coronavirus struck], they had multiple daily flights to Jeddah, Medina. And the authorities refused to give us daily to Jeddah or Riyadh. Instead, they give them to Saudi companies.

"There is a problem from our authorities. I have some destinations; I was surprised when the authorities gave the same destinations to other companies. Maybe they want to make us damage ourselves? Then we are closed and all our employees are going [out of work]."

Pitted against full-service rivals, with higher frequencies, and budget rivals, with lower costs, Nile Air quit many of the routes that were launched during Aly's tenure.

Al Ain in the UAE; Basra in Iraq; Port Sudan in Sudan; and Abha, Hofuf and Riyadh in Saudi Arabia have all been axed.

Before the crisis, scheduled flights were still operated to eight points in Saudi Arabia; Baghdad in Iraq; Istanbul in Turkey; and Kuwait. The hub at Cairo International Airport was complemented by operations at seven other Egyptian gateways (Alexandria, Aswan, Asyut, Hurghada, Luxor, Sharm el-Sheikh and Suhag).

But, with many of those routes still in the red, frequencies were variable and the airline's five A320s and two A321s were increasingly being placed with charter and wet-lease customers.

Last summer, for example, three aircraft were wet leased to Wings of Lebanon during what should have been Nile Air's busiest time of the year. The airline also operated repatriation flights on behalf of the UK Government following Thomas Cook's collapse.

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Wahab confirmed that charter flying for tour operators had become one of the company's main income streams – and not by choice.

"We were taking a lot of business from Spain, France, Italy," he noted. "The potential for Egypt was coming strong. We had a lot of tourists. But it is not our work. We are a scheduled carrier, not a charter company."

Domestic operations from Cairo had survived the cull, but, once again, Wahab was downbeat on their performance. "Domestic [flying] is not profitable because it is a short cycle," he insisted. "It is no good. It damages your aircraft. You put a lot of money in maintenance."

A former journalist himself, the airline chief was reluctant to make bold claims in the media and would not be drawn on specifics about his recovery strategy.

However, the recent strengthening of two overseas stations perhaps gave a hint of management's thinking. Jeddah and Kuwait were, last year, served from more than five airports in Egypt, tilting the network away from the Cairo hub.

What is not clear is whether that was a deliberate strategy or a forced retreat due to protectionism in the capital.

"Until now we are just trying to stand on our own feet. We are looking for the civil aviation [authority] and the [transport] minister to stand with us – like when they stand with EgyptAir – because we are a national carrier also, and we work under the same laws," Wahab said.

"I will make a lot of noise before I die. I'm going to the minister, the prime minister, the president, and after that I'm going to God." ■

Ghanaian carrier, Africa World Airlines, is looking to consolidate Accra as a regional hub for west Africa once the Covid-19 crisis has abated. **Victoria Moores** *reports.*

Mendis confident in the post-virus World

Africa World Airlines (AWA) has always pursued a strategy of slow and cautious growth.

In fact, COO Sean Mendis describes the company as one of the most conservative airlines in Africa. But he sees this as a strength for the Covid-19 recovery.

"We've had experience of dealing with this kind of crisis due to the Ebola issues that we faced some years ago. Most of the places we fly to in the region have a fairly robust screening, quarantine, and action plans to be able to react to contagious disease situations," he said.

Ghana closed its borders at midnight on March 22, triggering AWA to temporarily suspend international flights from March 23. Domestic flights were also halted on March 30.

"All we are doing right now is special charters for humanitarian/cargo," Mendis said on April 10. "Our strong base in the domestic market is likely to recover quicker than the international flying. The financial impact will be significant, but we are confident we will come through it stronger than most African airlines due to our conservative strategy so far."

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Privately owned AWA launched in 2012, with the support of Chinese shareholder HNA Group. While Hainan Airlines could be renationalised because of Covid-19, Mendis said this has not affected HNA's relationship with AWA. "At this point, it's business as usual," he said.

Mendis was part of AWA's founding team. He left at a planned exit point once AWA secured its air operator's certificate (AOC), but was asked to return in 2018 to help oversee the next stage of the airline's development.

"AWA is now eight years old, so we're past the initial start-up survival stage," he said. "We're now the largest international carrier by frequencies into Nigeria – we are flying there up to 200 times a month – so that's 34 times a week to Lagos and 11 times a week to Abuja. And

those flights are, in turn, feeding our hub in Accra with onward connections to Freetown, Monrovia and, our new route, Abidjan."

This regional expansion was made possible by AWA's slow, but steady, approach.

Back in 2012, AWA's founders decided to hire young Ghanaian pilots straight out of flying school, with 200-250 hours, and type rate them in-house. Today, AWA has three type-rating instructors (TRIs) and those 'youngster' first officers are now becoming captains.

"We developed a sustainable structure. It's not your typical start-up," Mendis said. "Plenty of African airlines go out and hire expats. However, our decision was that we wanted to focus on bringing in Ghanaians with international experience and developing them, rather than relying extensively on expats for the long term.

"I was away for six years and I came back. And I'm very proud about the fact that about 80% of our start-up team is still here."

Before Covid-19 took hold, AWA was carrying around 600,000 passengers annually on its fleet of eight Embraer ERJ145s, with two more scheduled to arrive by the end of 2020. These aircraft are LI variants, manufactured by Harbin Embraer in China, and previously operated by HNA Group's Tianjin Airlines.

AWA is now looking to transition to a new larger aircraft type, to fly alongside and ultimately replace the ERJ145LIs. It has a good relationship with Embraer, so E190/195s could be a possibility, but other 100-seat options are on the table.

"There is no decision made at this time. We're examining options from all the various manufacturers with products in this range that fit our strategic needs," said Mendis.

"We have limited opportunities to increase utilisation because of the infrastructure in west Africa. Therefore, the ownership cost is something that we have to keep in mind."

Before the pandemic, strong aircraft demand was pushing up asset prices. However, the post-Covid downturn could create an opportunity for AWA to secure 100-seaters at the right price.

Over the next five years, AWA plans to consolidate as an Accra hub-based regional carrier for the west African region. "That's always been the business plan," Mendis said. "But, as any start-up will tell you, the first few years are largely a case of survival. While you're working towards that goal, you don't necessarily

Bringing Ghanaians home: An AWA flight was chartered during the Covid-19 outbreak to repatriate workers from Liberia. It was operated with special permissions from the Ghana Civil Aviation Authority and other agencies.
PICTURE: AWA.

Left: Sean Mendis: "We're not here as a three-year flash in the pan; we're in it for the long term."

have the resources or the ability to focus on the things we are doing now."

Strengthening the Accra hub will involve AWA building up further interlines and codeshares. Mendis believes the post-coronavirus world could boost this partnership strategy because African and non-African airlines will be forced to choose between flying head-to-head, or feeding local hubs and leaving "last-mile delivery" to regional carriers.

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AWA, which has the International Air Transport Association (IATA) operational safety audit (IOSA) certification, already has business cooperations with several carriers, including Asky Airlines, Brussels Airlines, Emirates, and Ethiopian Airlines. One of its closest relationships, however, is a strategic partnership with South African Airways (SAA).

Mendis said SAA's entry into business rescue in December 2019 has not affected relations. In fact, before Covid-19, SAA increased its Washington service, via Accra, from four times weekly to daily. "We remain in very close contact with them. It's business as usual for now. It has not affected our commitment to the partnership and having a west African hub is very important for them."

Domestically, AWA has a majority market share. Its main rivals are bus companies and smaller airlines like PassionAir and Unity Air. However, the local market could soon be disrupted, as Ghana is looking to create a new national carrier.

"We are ready to partner with the Ghanaian Government on a home-based carrier project. We continue to evaluate the proposals from the government," Mendis said.

AWA interline partner, Ethiopian Airlines, is also in the frame for the project. Mendis declined to comment in detail, but said: "In general, we believe Ethiopian is a good thing for African aviation."

As a privately owned airline, AWA does not publish its financial results. But, in an April 2020 press release, HNA said AWA turned a profit just two years after its launch.

"If you made it to year eight, you are obviously sustainable," Mendis said. "We're not here as a three-year flash in the pan; we're in it for the long term. We believe that our strategy and where we stand right now financially is positive for the future." ■

Dana Air COO, Obi Mbanuzuo, is no stranger to Nigerian aviation. Over the past two decades he has also held senior roles with Air Nigeria and Virgin Nigeria. Against the backdrop of Covid-19, Mbanuzuo revealed to **Victoria Moores** *how the airline's strategic plans have been affected by the crisis.*

DANA PATCHES UP ITS STRATEGY

Lagos-based Dana Air is anticipating a slow post-coronavirus traffic pick-up, starting from around June, delaying the airline's growth plans by around six months.

Despite Nigeria being the first sub-Saharan African country with a confirmed coronavirus case, it has not been as hard-hit as others on the continent.

At the time of going to press, Dana Air COO, Obi Mbanuzuo, said there were "no huge changes" to the airline's strategic plan.

"We will just be looking at a slow return of traffic when the crisis is over, so will probably have a similar [strategic] plan, but with a six-month delay. As a domestic carrier, we are hopeful for a prompt restart of operations and we should be back to pre-coronavirus demand levels by around December."

When the first case was reported, Dana saw an immediate 10% drop in forward bookings, because foreign airlines were flying "half empty", which had an impact on onward travel within Nigeria. By early May, the country was beginning to ease its lockdown, but restrictions remained.

Going into the crisis, Dana operated interconnecting flights between five Nigerian cities – Abuja, Lagos, Port Harcourt, Owerri and Uyo – with one Boeing MD82, three MD83s and two 737-300s.

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In fact, the 737-300s entered commercial service with Dana in mid-February 2020, just as the world went into lockdown.

"We're using them to add frequencies on routes we already fly," Mbanuzuo said. "They're just additions; they're not replacing anything yet."

The 737s may, ultimately, be used to add more destinations within Nigeria. Mbanuzuo named Calabar, Enugu and Kano as potentials, but stressed that these were in no particular order.

"We're still focused on Nigeria. I don't think we are prepared to go outside the country," he said.

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Dana experimented with flying from Lagos to Accra (Ghana) in 2016, but the route was "very short-lived". It was suspended after three months because of fuel scarcity, poor schedule reliability, and not having the right aircraft type.

"I don't think we'll do that again for another couple of years, until we have a good, complete Nigeria network. We're only doing five cities now. I suspect we will have about four or five [more domestic destinations] to go before we're happy," he said.

During 2020, management are looking to come up with the next stage of Dana's strategic plan. This could see a shift to 737NGs and the introduction of a smaller aircraft type.

"We're probably still going to fly the MDs until they get to their heaviest checks – D checks," said Mbanuzuo. "The earliest will be due in a couple of years. Then we'll start phasing them out and the idea is to replace them. By then, the market should have settled down enough for us to be able to get our hands on some reasonable NGs."

> "We're very conservative, so we're not going to take an expensive asset at the wrong price or on the wrong terms."
>
> OBI MBANUZUO

Another option would be E-Jets, operating either alongside the 737s, or as a standalone replacement if the offer and financing was right.

"We've always wanted to keep one type of aircraft, but now we've got two, so I don't think there's anything wrong with two in future. That could be an idea to get a slightly smaller aircraft," said Mbanuzuo.

The NGs would replace Dana's existing six aircraft progressively from 2021 on a one-for-one basis. If Dana decides to operate E-Jets alongside the 737s, Mbanuzuo would be looking at up to four aircraft, with all variants in contention.

"One thing we've always said is we're very conservative, so we're not going to take an expensive asset at the wrong price or on the wrong terms," he added.

Privately owned Dana was founded in November 2008 and carried 720,000 passengers in 2019. Before the crisis, that figure was set to hit one million in 2020. Mbanuzuo describes Dana's approach as very patient and deliberate. "We take our time."

The company hit breakeven in 2009, generated a small profit in 2010 and was "fully profitable" in 2011. However, in mid-2012, a Dana Boeing MD-83 crashed on approach to Lagos, killing all 153 on board and 10 people on the ground. Two related groundings – six months in 2012 and three months in 2013 – pushed Dana into the red. The business returned to breakeven in 2014 and has been profitable since 2015.

One element of Dana's new strategic plan will be re-securing the International Air Transport Association (IATA) operational safety audit (IOSA) registration. Dana originally became IOSA registered in 2016 – the year it launched in Ghana – partly to regain customer confidence after the crash. However, it then reverted to all-domestic operations, so management decided not to renew the approval.

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Two years on, Dana is now back in touch with IATA and going through the audit process. "We already follow the processes and we've done it before, so it's not like it's entirely new to us. The day we didn't renew IOSA, did we start doing things differently? No."

Once Dana is recertified, it will be able to attract more corporates – including western embassies and oil companies. "A lot of them [corporates] come to us and say, 'We're kind of dissatisfied with the current people we're using; we'd like to use you, because we've heard about what you're doing, but you haven't got IOSA'."

While Dana's ownership is unlikely to change, IOSA will also open the door to airline partnerships. Dana does not currently have any interline or codeshares, but is in discussions with two Gulf carriers and is open to talks with "anyone and everyone", offering feeder flights within Nigeria, to help boost its domestic traffic.

Dana is also planning to build a maintenance, repair and overhaul (MRO) subsidiary over the next couple of years, performing in-house and third-party work. "We want to have a full MRO that can do basically everything," Mbanuzuo said.

Land has been secured for a hangar, where Dana will perform heavy maintenance, along with component repairs, avionics, wheels, brakes and sheet-metal work.

"We always have a wish-list and just keep looking at what's happening in the environment to see where we go next. We need to stay flexible," Mbanuzuo concluded.

Cosmos Gombura: "We are working on an expansion plan to include more routes in South Sudan."

Sky Navigator, South Sudan's newest airline, is helping to open a new chapter in the country's short but troubled history. **Martin Rivers** *reports.*

Flight of the Navigator

Last year, Cosmos Gombura, the managing director of Sky Navigator, a new South Sudanese airline, drove to neighbouring Uganda to attend a friend's wedding.

His group made the journey via the Nimule Highway, the only tarmacked highway in South Sudan, which stretches from capital city, Juba, across the Ugandan border to the northern town of Gulu.

Shootings, bombings and sexual assaults are a common occurrence on the notorious road. So, when Gombura's party became stranded, he inevitably feared the worst.

"On our way back to South Sudan the car that we were using broke down on the road," the airline boss recalled.

"We had an incident that almost saw a lady being raped. And that convinced me, personally, to find a solution – an alternative way to get to the northern part of Uganda without using this highway."

That October, Sky Navigator, operating under its original name of Sky Travel and Aviation, inaugurated twice-weekly flights between Juba and Gulu.

In doing so, it became the first airline to link the city and town since 2013, when evacuation flights were laid on following the outbreak of civil war in South Sudan.

The lack of connectivity since then is notable, given that Gulu's airfield is the second biggest in Uganda, behind only Entebbe International Airport.

Strong cultural ties strengthen the case for an air link, with Gulu's Acholi people tracing their roots directly back to South Sudan.

But, as is so often the case with intra-African traffic, commercial viability is an issue.

Few ordinary South Sudanese and Ugandan citizens can afford to fly, so Sky Navigator deploys a modest fleet of just two 12-seat Cessna Caravans. Although small aircraft, such as these, are easy to fill, their high per-capita costs have a dampening effect on demand. One-way tickets on the Juba-Gulu route are

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priced at $170.

"We have been operating it with a lot of challenges and difficulties," Gombura admitted. "But it has given us a lot of lessons that we are learning and working on."

Despite reducing frequencies to one per week shortly after launch, he believes the route will eventually become a daily service.

Leveraging Juba as a transfer hub for smaller South Sudanese airfields is key to the strategy.

Sky Navigator first entered the domestic market in March 2019, offering charter flights from Juba to the nearby cities of Yei and Torit. Management now want to regularise these services, while also adding longer routes to destinations such as Bor, Yambio and Rumbek.

"We have been flying domestically within a radius of about 30 minutes from Juba," Gombura explained. "We are working on an expansion plan to include more routes in South Sudan.

"Every quarter, according to our plan, we want to add two routes. And as that happens, we are making a hub… We will try to connect two cities with Juba, so that people can come from northern Uganda to South Sudan and connect domestically."

Commercial aviation in the country is currently dominated by foreign airlines. Most of the capacity exists on scheduled international services operated by large carriers from Ethiopia, Egypt, Kenya, Rwanda, Sudan, Uganda and the UAE. Some of the Sudanese carriers also operate eighth-freedom cabotage flights between Juba and Wau.

Thinner domestic routes are generally served on a charter basis by regional airlines that have placed their aircraft in South Sudan on short-term leases.

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Sky Navigator flies under the latter type of arrangement, sub-contracting Kenya's Horn Aviation for one of its Caravans (registration ET-AVW) and Tanzania's Fly Zanzibar for the other (registration 5H-MZA).

Gombura admits that his dependence on foreign partnerships means that Sky Navigator is not yet a "fully fledged airline".

But that is a handicap shared by all South Sudanese carriers, owing to the limited capabilities of the South Sudan Civil Aviation Authority, which has ceded control of its airspace to Sudan and lacks the ability to issue air operator's certificates (AOCs).

"There's quite a number of operators [within South Sudan], but I wouldn't call them airlines," Gombura explained. "I wouldn't say, also, that I am 100% up to the level of being given airline status. We are all under a category of aviation operators and operating divisions."

One of the country's most developed carriers – Golden Wings Aviation South Sudan, an affiliate of its South African namesake – ceased operations last year after the US Government imposed sanctions on its owner.

Offering something special: The Sky Navigator team.

South Supreme Airlines also tried to capitalise on the country's secession from Sudan in 2011, but succumbed to the instability that followed.

Although other operators are still active, Gombura said that lax oversight is holding back standards.

"Tomorrow [someone can] just open another aviation company and do the routes they want to do, and people will come," he complained. "We are hoping that the authorities can put regulations in place, so that we can have a regulated system for the serious players."

The airline boss described Sky Navigator's Gulu route as a "breakthrough" for the credibility of the sector.

"It's a symbol, a South Sudanese company doing what we are doing," he said.

"One of the things we take pride in is that as soon as we launched into Gulu, each one of the regional players – KQ (Kenya Airways), Uganda Airlines, Ethiopian Airlines – personally came to my office to see how they could strike a partnership. We are trying to leverage that."

Sky Navigator has now hired experts from Israel, Dubai and India to develop a booking platform that will pave the way for interline agreements.

Sharing traffic with foreign airlines in Juba makes sense, as Gombura has no plans to compete on high-volume regional routes. Instead, he wants to grow the Caravan fleet to five units while focusing solely on domestic expansion.

Three of the aircraft will be operated under long-term leases – replacing the existing contracts with Horn Aviation and Fly Zanzibar – while the other two may be purchased outright. The first unit was due to be delivered by Airworks Kenya at the time of writing.

Management are also considering switching one or two of the Caravans to Let L-410 Turbolets.

Gombura added that he is hopeful the fleet upgrade will coincide with the issuance of Sky Navigator's own AOC by the South Sudan Civil Aviation Authority. He credited China and Sudan with providing assistance to the regulator, but admitted that attaining international standards takes time.

Although security is an ever-present concern in South Sudan, the new transitional government is working hard to revive the peace process.

If it succeeds, civil aviation is likely to play a crucial role in the development of a country that is larger than Ukraine, yet has hardly any paved roads.

"About 70% of South Sudan is not accessible by road, so you have to fly," Gombura emphasised. "That is a very big contribution to the economy.

"Another very big contributor could be the tourism sector; we are a nation that has the biggest animal migration in the world."

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Sky Navigator already flies to an airfield in Uganda's Kidepo Valley National Park, as well as using Torit as an entry point for the game reserve on the South Sudanese side of the border.

Asked about the government's plans to launch a state-owned flag-carrier, Gombura was quick to urge caution.

"Unless they want to do what we are doing in terms of [flying] domestically, I don't think it's a wise investment," he said, noting the financial burden of competing with larger, more experienced national airlines. "This would be much better handled from a private-sector point of view."

He also complained about sky-high taxation: the airline pays departure taxes of $57 for each international passenger in Gulu, and $30 in Juba.

That said, it is not only government policy that needs reforming if South Sudan's aviation sector is to take off.

"The South Sudanese are family oriented. So, if tomorrow I was appointed to run an industry in this country, most likely you would find that, management-wise, there would be a problem," Gombura explained. "I would have to help my entire family due to the culture that we have.

"Before we go further, we need to take a step back and look at our behaviour, our way of doing things. That culture has to change."

Marrakesh FBO makes history

An enhanced experience awaits business aviation passengers at Marrakesh Menara International Airport. **Vincent Chappard** *and* **Anuradha Deenapanray** *report.*

Above: Christophe de Figueiredo: "This new FBO will bring a significant improvement in the quality of services."

Right: Julian Pitaresi: "We have had a very positive feedback from our customers on design, circuit and infrastructure."

The north African business aviation sector has received a major boost with the opening of the first independent terminal – out of the flow of commercial passengers – in Morocco.

Jetex and Swissport combined to create the fixed-base operation (FBO); the first time private aviation companies had invested 100% in such a facility.

Marrakesh Menara's VIP terminal also includes a Moroccan Airports Authority (ONDA) building for police and customs services.

Each year, Morocco sees more than 10,000 private jet movements, making it one of the most important markets in Africa.

"Marrakesh Menara is the largest FBO in the group to date in a completely private building," said Christophe de Figueiredo, Swissport Morocco CEO. "This new FBO will bring a significant improvement in the quality of services."

It is the second Swissport FBO in the country after the Casablanca facility for business and executive aviation opened in 2018.

The new FBO offers state-of-the-art infrastructure that makes arrivals, stopovers and departures convenient and hassle-free. On more than 500sqm, the stylish facility offers relaxing lounge space for up to 40 passengers, including a bar and a media corner. The terminal also includes a VVIP lounge for up to nine guests.

Much emphasis has been put on the comfort of crew members, with a totally dedicated 200sqm space including two 'snooze rooms' (real bedrooms), two spacious shower rooms, and a large relaxation area with kitchen and view of the track.

"The style of Swissport's FBO is a refined western blend with 'Marrakchies' touches, which subtly immerses our customers in the spirit of Morocco, and especially Marrakech. We really favoured local crafts. Furniture and decoration are 100% produced on site by talented artisans, with 80% made in Marrakech," underlined de Figueiredo.

According to him, the first feedback is positive. "Our customers are very pleased. They have been waiting for such a facility at Marrakesh Airport for a long time. There are positive comments on the style, layout and warmth of our FBO. They find it a warm and cosy place."

Jetex has also introduced a new world-class facility in the Moroccan market. This pavilion, which constitutes the company's second largest FBO worldwide after Dubai, brings its total number of African locations to 16, including six FBOs.

Since 2016, the company has brought the Jetex experience to Casablanca, Agadir and Rabat.

For Julian Pitaresi, the company's Morocco stations manager, this new FBO is not only a source of great pride but it also epitomises the achievement of a major project that meets the Jetex standard in terms of quality of high-end services.

"We have had a very positive feedback from our customers on design, circuit and infrastructure. Additionally it has dedicated operational and administrative areas. Everything is organised to cater for the needs of users. It also includes an independent meeting room with the latest technology and connectivity," he said.

Since 2009, Jetex has redefined the FBO concept and evolved it into a tailor-made luxury travel experience aimed at the most discerning travellers.

The Jetex VIP Terminal is an exclusive space spanning 1,000sqm. The facility has 25,000sqm of aircraft parking.

"We are also maximising and diversifying the activities of the FBO with partnerships to develop more offers for business aviation customers," said Pitaresi.

Martin Rivers *wants the air transport industry to be worried about shootdowns before – not after – they happen.*

TIME TO TAKE AIM AT SHOOTDOWNS

Few readers will be aware that, on May 4, an Embraer EMB-120 passenger aircraft operated by African Express Airways was shot down with the loss of all on-board.

The aircraft was making a humanitarian flight from Baidoa to Berdale in Somalia, carrying medical supplies for the country's fight against Covid-19. It was downed by Ethiopian soldiers, who apparently mistook its "unusual" flight path for a "potential suicide mission" by Al Shabaab, the Islamist terror group.

Six people died, including Captain Hassan Bulhan, the son of the airline's owner.

Four months earlier, Ukraine International Airlines Flight 752 (PS752) was blown out of the sky by Iranian soldiers who feared it was a cruise missile launched by the US military. That catastrophe claimed 176 lives.

And six years ago – in what was supposed to be a watershed moment for the airline industry – Malaysia Airlines Flight 17 (MH17) was shot down by Russia-backed rebels over the skies of eastern Ukraine. The International Air Transport Association (IATA) pledged to honour the 298 victims of that tragedy by ensuring that "civilian airliners will never again be brought down by weapons of war".

Clearly, those words now ring hollow.

Direct hits and near-misses are still an alarmingly common occurrence.

Just one month after the loss of PS752, for example, an Airbus A320, operated by Syria's Cham Wings, was forced to make an emergency landing after flying into an Israeli missile strike on Damascus.

And even small-arms fire can be deadly. In recent years, aircraft operated by Camair-Co, Flydubai and Pakistan International Airlines, have all been struck by bullets while airborne. One passenger died in the Pakistani incident in 2014. All could easily have perished if it had been the pilots who were gunned down instead.

With 46 million flights taking to the skies last year, IATA's goal of achieving zero shootdowns ad infinitum is probably unrealistic.

But the frequency with which these grisly events occur could surely be reduced – if only politicians and industry leaders would devote more time and money to tackling the problem.

> "I was dismayed by the near-total absence of international reporting about the tragedy in Somalia."

The media is partly to blame for their apathy.

I was dismayed by the near-total absence of international reporting about the tragedy in Somalia. Muted interest may have been down to the low number of fatalities, or the obscurity of the airline, or general desensitisation to tragic events in war-torn Somalia.

But, in my opinion, bias among western news producers – and consumers – was a bigger factor. Major news organisations will have been aware of the incident. They consciously decided that their readers and viewers would not find it interesting or relevant.

That same bias was evident in the media's transient coverage of PS752 – which claimed mostly ethnic Persian lives – versus its 24-hour rolling coverage of MH17, in which it was mostly western Europeans who died.

Put bluntly, and highly offensively, western deaths get more media attention than non-western deaths.

As well as being inherently unfair, this is dangerous.

Missiles do not discriminate.

The entities that are best-placed to protect global travellers from shootdowns – powerful governments, regulators, intelligence agencies and multinational organisations – are overwhelmingly based in the west. If they ignore the warning signs coming from Iran and Somalia, it is just a matter of time before their citizens pay the price.

The International Civil Aviation Organisation (ICAO), the Montreal-based aviation agency of the United Nations, shares in the blame.

When I wrote an opinion piece in the UK's *Guardian* newspaper arguing that ICAO had failed to learn the lesson of MH17, the agency accused me of lacking "basic journalistic professionalism" and spreading "false and misleading allegations".

Lethal demonstration: A Burundian soldier, serving with the African Union Mission in Somalia (AMISOM), holds a rocket-propelled grenade launcher on the outskirts of Baidoa Airstrip. It is likely that a similar sort of weapon, used by Ethiopian soldiers who were not members of AMISOM, shot down the African Express Airways flight.
PICTURE: AMISOM.

Left: The African Express Airways aircraft (5Y-AXO) that was shot down in Somalia.
PICTURE: ALAN WILSON.

I stand by my article. As did the *Guardian's* lawyers.

The ICAO has its reasons for being defensive. As part of the UN, it will only ever be a conduit for – not an agent of – reform. Sovereign powers will always lie with the member states that congregate in its chambers. Getting countries to cooperate is difficult. Even when consensus is reached, there is no way to enforce any agreements.

It is this lack of legal authority that allows ICAO to absolve itself of any responsibility for PS752 – and all other shootdowns.

But that is a non-sequitur.

Lacking legal authority is not the same as lacking influence. The agency devoted huge resources to amending civil aviation guidance and standards in the aftermath of MH17. It must, of course, be judged on the results.

Its flagship response was the formation of the conflict zone information repository (CZIR) – an online platform through which member states were asked to share intelligence about threats to civil aviation. This platform, it was hoped, would bring an end to the patchwork of intelligence sharing that was resulting in different airlines taking different risks.

CZIR was an abject failure. ICAO closed it in 2017 because no-one was bothering to use it.

> **“Airlines, industry groups and governments could throw their weight behind a central intelligence sharing body that identifies threats and broadcasts alerts in real time around the world.”**

“States were at first very eager to have a conflict zone repository established by ICAO,” an agency spokesperson recalled. “But shortly thereafter… risk information began being provided directly by states, other international organisations and industry flight-planning services.”

By falling back on to a decentralised approach, the air transport industry – presided over by ICAO – reverted to the same mishmash of intelligence sharing that caused the MH17 disaster.

As a direct consequence, both Ukraine International Airlines and African Express Airways were left to make their own, poorly informed decisions about the risks of flying through conflict zones. Sadly, they made the wrong call.

There is a better way.

Airlines, industry groups and governments could throw their weight behind a central intelligence sharing body that identifies threats and broadcasts alerts in real time around the world.

Such a system would, of course, be controversial. Countries whose airspace is tarnished by an advisory would be furious at the reputational and financial damage. They may even perceive it to be a violation of their sovereignty.

It would also be entirely toothless – able to do nothing more than broadcast advice.

But, with proper resourcing and sufficient industry support, there is little doubt that lives would be saved.

It is up to us, collectively, as a global community, to decide if the current system is fit for purpose. If we decide it is not, should we pursue reforms now, or should we wait until another aircraft is shot down? ■

Under pressure: A Gripen C and a Gripen D of 2 Squadron, the 'Flying Cheetahs', South Africa's premier fighter unit.
PICTURE: SAAB.

Tons of problems for the SAAF

The South African Air Force has (quietly) celebrated its centenary against a backdrop of worries that it is in "dire straits". **Jon Lake** *reports.*

The South African Air Force (SAAF) was formed on February 1 1920, making it the second oldest Commonwealth air force. It participated in the Second World War, provided 20 crews for the Berlin Airlift and sent an all-volunteer fighter squadron to support UN forces during the Korean War from 1950 and 1953.

The air force also has a long and proud history of providing South Africa, and the region, with vital humanitarian assistance, mountain rescue, air sea rescue, fire-fighting and flood relief.

Recognising this, even before the first democratic elections took place in April 1994, South Africa's transitional executive council ruled that the SAAF name would be retained, and that it would not be redesignated as the South African National Air Force (SANAF), though its insignia was changed.

There was pride in the SAAF and its constituent squadrons and units were allowed to retain their pre-1994 battle honours and related history.

However, that history did have to be celebrated quietly and without too much fuss. The racially exclusive make-up of the SAAF before 1994, and the part it played in the war against the anti-apartheid movements in Angola and other southern African countries in the last years of the apartheid regime, made celebrating the centenary problematic.

A somewhat subdued celebration was probably always inevitable – though the year also marked 25 years of post-apartheid existence.

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In the event, however, political directives apparently dictated that the centenary would be ignored and ruled that there would be no SAAF 100 logos or slogans.

The decision to not mark the SAAF's centenary was reportedly so sudden that air force bases and squadrons were advised to cancel their planned celebrations only at the last moment.

SAAF chief, Lieutenant General Fabian Msimang, is a known supporter of celebrating an inclusive SAAF history, and of the SAAF Museum, and even individual base museums. During the Prestige Day parade (a watered-down anniversary celebration in all but name) he referred to himself as "the 21st air chief in the pre and post 1994 history of the SAAF; and the fifth air chief of the air force in the new dispensation".

It may be 100 years on for the SAAF, but all is not well.

Msimang told a meeting of the joint standing committee on defence last year that the budget allocation for the air force was about 60% short of what was required. He said the SAAF was in "dire straits", operating in a "survival mode" and flying less than one third of the hours that he would hope to see.

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He pointed to the way in which budgetary constraints were preventing the air force from planning its maintenance expenditure on a rolling three-year basis and was, instead, having to resort to short-term support contracts. The budgetary limitations made it impossible to recapitalise the ageing aircraft fleet, which was facing obsolescence and was encountering growing airworthiness challenges as a result.

He predicted that the nation would soon be left with an air wing, rather than air force – with personnel but no assets.

The SAAF is believed to have no airworthy C-130 Hercules transports available, following a landing accident at Goma in January 2020, and a nosewheel collapse at Waterkloof in April, while the service remains coy as to the number of BAE Hawk advanced trainers and Saab Gripen fighters that are actually available.

The SAAF has a fleet of 17 single-seat Gripen Cs and nine two-seat Gripen Ds, but nearly half the fleet is understood to be in rotational storage, and the air force has only about a dozen active and reserve pilots for the aircraft, together with a small number of strike navigators for the two-seaters.

Saab's recent announcement of a new active electronically scanned array (AESA) fighter radar, based on the back end of the existing Gripen radar, holds out the promise of being able to transform South Africa's Gripens into the most capable fighters on the continent, but funding is unlikely to be made available for any such modernisation.

Helicopter serviceability is also believed to be poor. ■

Many southern African air forces are, today, a shadow of their former selves. **Alan Warnes** *has been looking around the region.*

SOUTHERN DISCOMFORT...

South Africa has always operated the largest air force in the region – but, as reported on page 30, has been seriously affected by budget cuts.

Since the 1999 strategic defence package, worth $5.2 billion and covering Saab Gripens, BAE Hawks, Agusta 109LUHs, and Lynx Mk 300s, there have been no major acquisitions.

According to one reliable source, the defence budget 20 years ago was 1.5% of gross domestic product (GDP); today it is 0.9%.

Of the 26 Saab Gripen C/Ds ordered in 1999, the last four single-seat JAS 39Cs were delivered to 2 Squadron at AFB Makhado, near Limpopo, in 2012. However, up to May 12 this year, there were fewer than a dozen pilots for the Swedish jets, which are only flying a few hundred hours a year.

Gripen pilots start their fighter training on one of 24 BAE Hawk Mk120s at the 85th Combat Flying School, also housed at Makhado. The Hawks are used as a dedicated lead-in fighter trainers (LIFTs) but, in recent years, have spent most of their time on the ground.

The 30 Agusta 109 light utility helicopters, delivered between October 2005 and September 2009, included 25 assembled in-country by Denel.

Five have been lost but the remainder are operated alongside 36 Oryx medium utility helicopters by 15 Squadron at AFB Durban (which also flies the BK-117 helicopter), 17 Squadron at AFB Swartkop, 19 Squadron at AFB Hoedspruit, and 87 Helicopter Flying School at AFB Bloemspruit.

The last acquisition, in 1999, was four Agusta-Westland Super Lynx 300s, bought to improve the SAAF's anti-submarine and anti-surface ship warfare capabilities. They are operated by 22 Squadron, which also flies the Oryx, based at AFB Ysterplaat. They regularly operate from the SANDF's Valour-class frigates.

The SAAF still has 11 indigenous Denel Rooivalk Mk1F gunships, flown by the Bloemspruit-based 16 Squadron.

In the transport role, there are believed to be seven surviving C-130BZs of the nine delivered to 28 Squadron at AFB Waterkloof. One was lost at Goma in January after it ran off the runway.

It is believed that only two Hercules aircraft are airworthy, while none of the ex-US Navy C-130Fs, delivered in the late-2000s, are operational.

Other transport aircraft include two CASA 212-200M Aviocars, and a single CASA 212-300M, operated by 44 Squadron at Waterkloof. They have recently been flying in support of coronavirus efforts.

There are eight Cessna 208 Caravans, flown by 41 Squadron, primarily in the light transport role, but the type has also undertaken surveillance missions, with at least three platforms modified to carry Denel's Argos-410Z electro-optical/infrared system.

Four Beech 200/300 Super King Airs and a Pilatus PC-12 also serve the unit.

For basic training, there are 35 Pilatus PC-7 Mk IIs serving the Central Flying School at AFB Langebaanweg, with several flying with the Silver Falcons aerobatic team.

ANGOLA

The Angolan civil war, from 1975 until 2002, meant the air force was kept active.

Russia supported the government and supplied all the fighters, which included 95 MiG-23MLA/UBs Floggers, 31 Su-22M4/UM3K Fitters, and around 16 Su-25K/UBK Frogfoots.

All but a handful of ex-Slovak Air Force Fitters are thought to be flying from Catumbela Air Base.

Today, the bulk of the fighter fleet is made up of two Su-27UB Flanker-Cs, in addition to 12 ex-Indian Air Force Su-30K Flanker-Fs. The latter were purchased from Irkut Corporation after being overhauled and modernised at Baranovichi, Belarus, in 2017/18.

The first pair arrived in December 2017 and all 12 were delivered to Lubango, where the 26th Fighter Aviation Regiment is based, by May 2019.

Six Embraer A-29B Super Tucanos, delivered in 2013, are operated in the light-attack role from Catumbela.

The helicopter fleet includes 12 Ulan-Ude Mi-171Sh aircraft, four Leonardo Helicopters AW139s – delivered between late-2016 and July 2017 – as well as a diminishing number of Alouette IIIs, originally acquired in 1975.

Recently, the National Air Force of Angola purchased 12 Hongdu K-8 Karakorum advanced jet trainers, with six already delivered to Catumbela. The others are scheduled for delivery this year.

Two Xian MA60 transport aircraft were also delivered by China National Aero-Technology Import and Export Corporation (CATIC) in August 2019.

The Angolan Government announced in March 2018 that it was set to acquire three Airbus C295 maritime patrol aircraft to monitor its exclusive economic zone (EEZ). The deal, financed by Spain's Banco Bilbao and Vizcaya Argentaria (BBVA), is worth €159.9 million ($180.56).

More on the way: Angola has taken delivery of six K-8Ws with another six due to be delivered this year.
PICTURE: CATIC.

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BOTSWANA

Botswana's Defence Force Air Wing (BDF-AW) has seven ex-Canadian Air Force BF-5A/Ds on strength with Z28 Squadron at Thebephatshwa Air Base. However, their serviceability is questionable.

A replacement is being sought with the Saab JAS 39C/D Gripen, Korean Aerospace Industries T-50, and PAC/Chengdu JF-17 Thunders, all offered in 2017.

The deals are still on the table but the cost exceeds Botswana's budget. The Gripen deal is said to be worth $1.7 billion for between eight and 12 aircraft.

Recent procurements by the BDF-AW have included six South African-based Micro Aviation Bat Hawk light aircraft, armed with the FN Herstal Minimi 5.6mm Mk3 light machine guns. This is the first time the aircraft have been armed, and they will undoubtedly be used against poachers as they are flown by the country's department of environment, wildlife and tourism, based at Sir Seretse Khama International Airport.

Three new AW109E Power helicopters have also been acquired, the most recent being delivered in May.

The one and only: The Malawi Defence Force's sole SA330H Puma during an exercise with US personnel in 2017.
PICTURE: US ARMY.

MALAWI

Malawi's small standalone air force is maintained by the national army and, in the past, has been trained by the UK.

The bulk of its assets are helicopters, with the most recent acquisition being three former Army Air Corps Gazelle AH1s, acquired on the civilian market.

Three Do228s are also believed to be operational.

MOZAMBIQUE

After independence from Portugal in 1975, a civil war broke out in 1977 that tore the country apart until it ended in 1992.

The Mozambique Air Force (MAF) acquired 36 MiG-21Bis Fishbeds and four MiG-21UMs in 1982. In 2013, Romania's Bacau-based Aerostar overhauled six MiG-21Bis and two MiG-21UMs. Part of the MiG-21 deal also saw

Aerostar use an L-39ZO to train MAF pilots.

Two ex-Portuguese Air Force Cessna FTB 337Gs were delivered in 2011 and 2012. Their roles are said to cover utility, training, medevac and maritime surveillance.

A Kazan Mi-17V-5 was delivered in September 2019, while a handful of Cessna 152/172s are also believed to be operational.

A single An-26B, overhauled by the Kiev Aircraft Repair Plant in Ukraine, was delivered in September 2013. All aircraft are housed at Maputo-Mavalane International Airport.

NAMIBIA

After independence from South Africa in 1991, another 14 years passed before the Namibian Air Force was created.

CATIC delivered two Y-12II Pandas in 1997 and four K-8 Karakorums during 2001 to the then Namibian Defence Force. Colonel Muammar Gaddafi also provided ex Libyan Arab Air Force Mi-8Ts, Mi-25s and MiG-23s in the early 2000s, but they are believed to be grounded now.

CATIC delivered six Chengdu F-7NMs and two Guizhou FT-7NGs in 2006 and two Harbin H425 Haituns (a civilian version of the Z-9) in April 2012. One of the latter crashed in April 2014, killing four people on board and seriously injuring another four.

Cheetah power: The Namibia Air Force is operating a sole HAL Cheetah (seen here) and two Cheetaks.
PICTURE: NAF.

Hindustan Aeronautics Ltd (HAL) delivered a HAL 315B Cheetah in 2012, along with two HAL 316B Cheetaks that were added to a VIP example acquired in 1994. The bulk of the aircraft are based at Grootfontein Airport, a former South African Air Force base.

ZIMBABWE

The Air Force of Zimbabwe (AFZ) has not fared well in recent years and aircraft serviceability levels are questionable.

The fighter force, housed at the former Thornhill Air Force Base – known since November 2017 as Gweru-Josiah Tungamirai AFB – comprises six Chengdu F-7NIIs, along with two dual-seat Guizhou FT-7BZs, operated by 5 Squadron. There are also 10 K-8 Karakorums, of 12 delivered in 2005/6, which are flown by 2 Squadron.

Harare-Manyame hosts four CASA 212-200M Aviocars, flown by 3 Squadron, which make up the transport fleet.

There are also around 15 different types of Siai-Marchetti SF 260 (C/F/TP and W) serving 6 Squadron, which are used as liaison and training aircraft.

Six Mi-35P Hinds were acquired in 1999 but, once again, the status of these is unknown.

In June last year, the AFZ took delivery of two former German civilian AB 412SPs, adding to the four already serving 8 Squadron, while 7 Squadron has a mix of AS532UL Cougars, Mi-172 Hips and Alouette IIIs.

South Africa's Denel is in the midst of a transformation programme to restructure itself into a profitable company after years of shrinking defence budgets and alleged corruption – and the coronavirus pandemic certainly hasn't helped.
Alan Dron *looks at what it must do to survive.*

Virus adds new twist to Denel survival fight

The name Denel has been synonymous with South African defence products for almost 30 years.

Its various divisions have been responsible for everything from air-to-air missiles and aerostructures to artillery and armoured vehicles.

But the company has been plagued in recent times by accusations of corruption and 'state capture', the process by which individuals or organisations commandeer state-owned companies to redirect public resources into their own hands.

With the coronavirus weighing in this year, putting the country into lockdown, it meant that the company's attention was switched during the emergency to things like designing and developing vital medical ventilators, producing sanitisers for industrial and medical uses, and converting Casspir landmine-protected infantry mobility vehicles into field ambulances.

Denel has been, for some time, in what it describes as a transformation process, to remedy past problems and make it more viable for the future business environment. It said last summer: "Systems and processes are in place to strengthen governance, improve programme management, drive efficiencies and grow revenues."

However, Denel did not respond to repeated attempts by *African Aerospace* to provide a more recent update on its progress.

Noted South African defence analyst, Helmoed Heitman, said that he believed Denel was "born to fail" from the moment it was hived off from state-owned Armscor in 1992, just at the time when the country's defence budget was shrinking rapidly.

Despite this, a combination of good staff in the various divisions and some useful export orders allowed the company to survive. "Indeed, three or four years ago, it was on the verge of making quite a lot of money."

However, a series of factors brought an end to this, said Heitman. Notable among them was the creation, without government permission, of subsidiary Denel Asia, in which the Gupta family – now enmeshed in a series of huge corruption allegations – was heavily involved.

There have also been mistakes made by management, Heitman believed. For example, the decision by the aerostructures division to cease making components for the Airbus A400M strategic transport aircraft meant that Airbus repossessed its equipment, meaning that Denel could not use it for other contracts for UK tier-1 supplier GKN, or on Japan's HondaJet executive aircraft.

Earlier this year, Denel announced its imminent exit from its aerostructures business.

A further problem is that the South African National Defence Forces are so short of money that they are unable to buy Denel products; and failure by a country's armed forces to buy their own nation's military equipment is a major deterrent to overseas purchasers.

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In addition, Heitman said, the decision by South Africa's national conventional arms control committee to insist on the right to inspect foreign purchasers' sites to verify that they were not transferring the weapons to third parties, understandably raised hackles with potential buyers of Denel weaponry and stalled several promising arms contracts to Saudi Arabia, Algeria, Oman and the UAE. "If we can't get this blockage out of the way, Denel will die," he said.

The scale of the problem

The depth of Denel's problems can be seen in the fact that Reuters reported in mid-May that the company had told staff it was unable to pay that month's salaries and that wages for June and July were also at risk.

The government gave the state-owned firm a R1.8 billion ($100 million) bail-out in 2019 and the company is awaiting another R576 million announced by the government in February.

The company is attempting to return to profitability through a combination of cost-cutting, selling assets and bringing in strategic equity partners.

Cash infusions are badly needed; in its 2019 financial results, the company posted losses of R1.75 billion, a significant deterioration on 2018's R1.05 billion deficit. Revenue fell to R3.8 billion from R5.8 billion and the amount spent on research and development – vital in the defence sector – slumped to R108 million from R769 million.

In her notes to the annual report, chairman, Monhla Hlahla, said that "decisive action" had been taken against those found guilty of corruption, mismanagement and the flouting of corporate guidelines.

South Africa's pride: A Seeker 400 drone, manufactured by Denel Dynamics, flies over Cape Town Stadium.

Inset: Denel's A-Darter air-to-air missile could be used on the Saab Gripen fighters bound for Brazil, but some observers feel the company should be aiming for less complex projects in future.

The country's budgetary difficulties are another reason for its lack of support for Denel, said one former senior official at the company, who asked not to be identified: "The problem is that the South African Government currently has a hell of a lot more pressing problems than the defence industry."

Denel has several potential money-spinners in its portfolio, such as ammunition made by Rheinmetall Denel Munitions, armoured vehicle gun turrets, and missiles, such as the A-Darter air-to-air missile, that has been mooted to equip Brazil's Saab Gripens.

But the company has to be realistic, said the source: "We need to change the stance of the defence industry and stop trying to be a major systems supplier, [instead] concentrating on things that we can do well and sell them though a major supplier – for example, a sighting system through BAE Systems."

Tackling major projects, such as air-to-air missiles, was very difficult for a company of Denel's size and skills, he added.

He suggested the company focus on more modest programmes, such as precision-guided munitions plus support, maintenance and repair activities – "That's where all the money is."

Heitman believes that three steps must be taken if Denel is to have a chance of survival: The block on export sales has to be lifted; the South African defence forces must start to buy Denel equipment; and international partners have to be brought in.

Without these: "It will die." ■

Well used: Morocco's new Heron UAVs are ex-French Armée de l'Air Harfangs, which saw service in Afghanistan, Libya and Mali.

Morocco buys second-hand Herons

Morocco's Ministry of Defence (MoD) has taken delivery of three Heron long-endurance drones, which were decommissioned from service with the French Armée de l'Air in early January 2018.

The aircraft arrived in Morocco earlier this year for a reported price of $48 million, which is about one third of the cost of three new Herons, plus ground stations, spares and support.

Though there has been no official confirmation of the deal by Morocco, it is believed the UAVs will be deployed to fight jihadist groups in Western Sahara.

They have a long endurance, and can carry a range of secure communication links and sensors, including infrared and electro-optical cameras, communications intelligence and electrical intelligence collection systems, and various surveillance, maritime and search-and-rescue and ground moving target indicator radar systems.

The UAVs are actually derivatives of the Israeli Aerospace Industries Heron TP (Eitan), known as the Eagle or Harfang.

The Eagle was produced by EADS and IAI to meet a French Air Force requirement for a strategic intelligence, surveillance and reconnaissance (ISR) asset, known as the Système Intérimaire de Drone Male (SDIM), specifically to support out-of-area operations.

The French Air Force ordered three aircraft and two ground control stations.

The Harfang prototype was tested from September 2006 at the Centre d'Essais en Vol (test flying centre) at Istres-Le Tubé Air Base, prior to further testing at Mont-de-Marsan.

The system was deployed in Lourdes in 2007 to provide security for Pope Benedict XVI, and the SIDM entered service in June 2008 with Escadron d'Expérimentation des Drones (Drone Experimentation Squadron) 1/330 'Adour', a unit of the Centre des Expérimentations Militaires.

The three UAVs were previously deployed to Bagram Air Base in Afghanistan in February 2009, and were subsequently used in the Libyan conflict in August 2011 and in Operation Serval in Mali from January 2013.

Morocco has long had close defence relations with France, having ordered Mirage F1 fighters and Fremm frigates in the past.

PHANTOM WING FINALLY RE-EQUIPPED WITH F-16S

New era: Military officers attend the formal re-opening of the fighter brigade at Cairo West Airport.

Egyptian and US military officers gathered at the formal re-opening of the fighter brigade at Cairo West Airport, which now operates the Block 52 F-16C/D aircraft.

The 222nd Tactical Fighter Brigade retired its last F-4E Phantoms in 1988, placing the aircraft in storage/reserve, while the 76th and 78th Squadrons were inactivated.

Now, however, the base has been rebuilt to accommodate new F-16s, which have replaced the ageing Phantoms.

The Egyptian Air Force was supplied with 35 ex-US Air Force F-4Es under the September 1977 Peace Pharaoh agreement, and also received AIM-7 Sparrow and AIM-9 Sidewinder air-to-air missiles and AGM-65 Maverick air-to-surface missiles at a cost of $594 million.

Ten further F-4Es were delivered between 1988 and 2000, bringing the 76th and 78th Squadrons to full strength and replacing losses.

Plans to procure more F-4Es were abandoned in favour of acquiring the F-16, and the multi-phase Peace Vector programme saw Egypt receiving a total of 220 F-16s between 1982 and 2002. Some 138 were delivered to Block 40 standards, 46 of them built by TUSAS in Turkey, and the remaining Block 15 F-16A/Bs and Block 32 F-16C/Ds were upgraded to Block 42 standards. These aircraft equipped air wings at Inshas, Beni Suef, Abu Sueir, Gianaklis, and Fayid.

However, the final 16 Block 52 F-16Cs and four F-16Ds, ordered under Peace Vector VII, were always intended to re-equip the units at Cairo West, and Peace Vector VII also covered the upgrade of existing F-4 operations and maintenance facilities to allow their use for the F-16 programme.

Cairo West Air Base was to be fully functional, self-sustaining, and not reliant on facilities at other bases for operational or maintenance functions, while supporting operations by the F-4, the Northrop Grumman E-2C Hawkeye AEW aircraft, and the Lockheed C-130 Hercules transport.

This saw the construction of more than 100 buildings vital to the operation and maintenance of the aircraft, including hangars, training facilities, munitions storage, living quarters, dining halls, and offices.

The new F-16s finally replaced the Egyptian F-4 fleet earlier this year, providing a significant increase in military capability.

Delivered ahead of schedule: The new terminal of Ivato International Airport.

Madagascar builds for the future

Air connections are vital if Madagascar is going to attract foreign investment and develop its trade and tourism industry. Now, as **Vincent Chappard** *reports, many airport regeneration programmes are taking place.*

At 592,800sqkm, Madagascar is the world's second largest island country. Sitting in the Indian Ocean, some 400km off the coast of east Africa, it has 56 airports and civil aerodromes open to public air traffic, including eight international airports, four mainly dedicated to domestic flights, and 44 secondary aerodromes.

A route development programme for 2020, created before the coronavirus pandemic, aimed at increasing connectivity and traffic with major hubs in Europe and the Middle East, promoting short-stay trips, and building partnerships with tour operators.

Recent studies had showed that Madagascar airport traffic could be stimulated by tapping into new markets within the Southern African Development Community (SADC), the Common Market for Eastern and Southern Africa (COMESA), Asia-Pacific, the Middle East, eastern Europe and Latin America.

Four major areas for international traffic or regional hubs have been identified – the new Andrakaka Airport (north), Philibert Tsiranana Airport (west), Ambalamanasy Airport (east), and Akoronga Airport (south).

In 2017, Airports of Madagascar (ADEMA), which is in charge of the construction, management and operation of civil secondary airports and aerodromes, launched a partnership plan to develop and operate 54 airports and aerodromes, apart from Ivato and Nosy Be, which are managed by the Ravinala Airports consortium.

"Due to insularity, the economic development of Madagascar is highly dependent on international trade," explained ADEMA CEO Herison Andriamihafy. "Air connectivity is vital to attract foreign investors and to amplify trade and tourism, and enable us to reach the milestone of 500,000 tourists in 2023."

Since 2016, the international airports of Antananarivo-Ivato and Nosy Be have been operated by Ravinala Airports – a consortium of investment management, design, maintenance, and construction companies – under a 28-year concession. These airports handled 1,048,000 (a record) and 215,000 passengers respectively in 2019.

The new 17,500sqm Ivato terminal, built by Bouygues and Colas Madagascar, was delivered in October 2019, six months in advance and in accordance with the initial costs. It will respond to the growth in traffic in the coming years.

According to Ravinala Airports CEO, Patrick Collard, the facilities will provide international-standard service. "They will strengthen our collaboration with the state and the various tourist and airport entities, to give a new image of Madagascar and further contribute to the development of the country," he added. ■

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MADAGASCAR CONSTRUIT POUR L'AVENIR

Madagascar dispose de 56 aéroports et d'aérodromes civils ouverts à la circulation aérienne publique dont huit aéroports internationaux, quatre aéroports principalement dédiés aux vols domestiques et 44 aérodromes secondaires. Un tour d'horizon des travaux de développement avec **Vincent Chappard**.

En 2017, la société ADEMA (Aéroports de Madagascar), responsable de la construction, de la gestion et de l'exploitation des aéroports et aérodromes secondaires civils, a lancé une recherche de partenariat pour le développement et l'exploitation de 54 aéroports et aérodromes, outre Ivato et Nosy Be qui sont gérés par Ravinala Airports.

« Le développement économique de Madagascar, de par son insularité, est fortement tributaire des échanges avec l'extérieur et doit disposer d'une connectivité internationale pour attirer les investisseurs étrangers, et pour amplifier les échanges commerciaux et touristiques avec le reste du monde dans le meilleur objectif d'atteindre le cap de 500 000 touristes en 2023 », explique Herison Andriamihafy, le directeur général d'ADEMA.

Depuis 2016 (un contrat de 28 ans), les Aéroports Internationaux d'Antananarivo-Ivato et de Nosy Be sont exploités par la société concessionnaire Ravinala Airports. Ces aéroports ont respectivement accueilli 1 048 000 (un record) et 215 000 passagers en 2019.

Le nouveau terminal d'Ivato a été livré en octobre 2019 avec six mois d'avance et en respectant les coûts initiaux de même que les standards internationaux pour répondre à la croissance du trafic.

Selon Patrick Collard, le directeur général de Ravinala Airports, les nouvelles infrastructures d'Ivato et de Nosy Be offriront aux usagers un service de qualité répondant aux normes internationales. Elles permettront de renforcer notre collaboration avec l'État et les différentes entités touristiques et aéroportuaires pour donner une nouvelle image de Madagascar, et pour contribuer au développement du pays.

Parmi d'autres projets : la formation, le développement des activités non aéronautiques, les initiatives environnementales et l'intensification des partenariats régionaux.

Il faudra, avant tout, gérer l'impact de la crise colossale qui frappe l'industrie de l'aviation. ■

The future of Rwanda's new international airport has been given a significant boost by the involvement of Qatar Airways. **Alan Dron** *reports.*

RwandAir: In negotiations with Qatar Airways' Group.

QATARI BOOST FOR RWANDA'S NEW AIRPORT

When Bugesera International Airport opens for business in 2022, it will be backed by one of the world's most successful airlines.

In December 2019, Qatar Airways signed a deal to take a 60% stake in the new airport, now under construction around 35km south-east of the Rwandan capital, Kigali.

Under three agreements, a partnership between the Rwandan Government and Qatar Airways will build, own and operate the new airport.

With the new airport project costing around $1.3 billion, Qatar Airways' 60% stake is effectively an investment of $780 million in the central African nation.

Previously, Portugal's Mota-Engil held an 85% stake in the facility. The Rwandan Government then bought this from the Portuguese construction company, giving it 100% ownership. It then signed the agreement with Qatar during a state visit by the Arabian Gulf state's Emir Sheikh Tamim bin Hamad Al-Thani.

Mota-Engil remains the contractor for the project.

Qatar is taking a strong interest in the small central African nation; in February this year, Qatar Airways' Group CEO, Akbar Al Baker, announced that the Gulf carrier was in negotiations to buy 49% of RwandAir, the national carrier.

Nearing its capacity limit: The existing Kigali International Airport.

"In very general terms, to go into a venture with a world-class airline like Qatar Airways [brings] a lot of benefits, as you can imagine," RwandAir CEO, Yvonne Manzi Makolo, said. Capacity-building and staff training were just two potential plusses from the proposed partnership, she added.

Speaking at the CAPA Qatar Aviation Aeropolitical and Regulatory Summit in Doha, Al Baker said that Qatar Airways was attracted to Rwanda by several factors, including its strategic location and its business-friendly environment.

Al Baker visited Kigali for the 2019 Aviation Africa Summit and talked there about opportunities for the two nations to work together.

The new airport is necessary as the existing Kigali International Airport is located in a densely developed district of the city, just 10km from the central business district, and is unable to expand.

Before the coronavirus pandemic struck, it had also become steadily busier, with the number of passengers around the 1 million per year mark and a compound growth rate of 10.6% over the past four years.

Kigali International is the country's main airport, but it is also of regional importance as it serves Congolese, Burundian and Ugandan cities.

The existing airport was operating at around full capacity, said Makolo. Recent expansion had taken place, partly to cope with the planned British Commonwealth Heads of Government Meeting in June, and partly to cater for RwandAir's growing operations, "but there's only so much it can expand".

A decision to create a new airport on a greenfield site was made in 2010, although construction only got under way in July 2017.

As originally planned, the new airport was designed to have an initial annual capacity of 1.7 million passengers, expandable to 4.5 million once all the infrastructure had been completed.

However, work was slowed in July 2019 due to the need to redesign the airport to accommodate the country's new aviation strategy, which forecasts a higher growth rate than previously anticipated.

The new airport will provide a massive expansion of capability, said Jules Ndenga, interim CEO of Aviation Travel & Logistics Company, the Rwandan Government's aviation arm that manages activities including travel, logistics, ground, freight and cargo-handling, plus charter services.

"The first phase of the airport is designed to accommodate seven million passengers per year over 10 years, after starting operations in 2022.

"The second phase expansion would be implemented to host 14 million passengers per year for the subsequent 10 years."

The new airport will have a single runway, but with the option of a second being added at a later date if traffic required it.

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The impact of Covid-19 on African civil aviation has laid bare the weakness of regional maintenance, repair and overhaul (MRO) capabilities, where encouraging signs in one arena are counterbalanced by a stumbling performance elsewhere. **Chuck Grieve** *reports.*

Africa's fight is on to maintain operations

In-house – or even in-continent – MRO remains an elusive ambition for much of African aviation, a situation exacerbated by the Covid-19 effect on flight operations and revenues. Few doubt the sector represents business opportunities, but the risks are high.

Potential investors will observe the domino effect that the de facto collapse of South African Airlines (SAA) has had on that country's industry.

There is room for optimism, however, with the new partnership between Ethiopian Airlines (EA) and Sanad Aerotech of Abu Dhabi to establish an MRO centre of excellence in Addis Ababa.

EA chief executive, Tewolde GebreMariam, said maintenance services, alongside increased cargo operations, are a pillar of EA's strategy to recoup some of the revenue lost by the cancellation of passenger services. Both were "doing well", he said in mid-April.

Tewolde GebreMariam: Maintenance services are a pillar of EA's strategy to recoup lost revenue.

The centre of excellence will start off with repair and overhaul of the auxiliary power units (APUs) used on EA's Boeing 737 and Airbus A320 aircraft. The partners expect this to pave the way for third-party work, eventually expanding capabilities to include component and engine MRO – areas where Sanad is already active through accreditation from Rolls-Royce, GE Aviation, IAE and Pratt & Whitney.

Tewolde said the move supported Ethiopian's vision of becoming "the leading MRO service provider in Africa through strategic partnerships with original equipment manufacturers (OEMs) and selected international MRO service providers".

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At the other end of the continent, the woes of SAA have submerged other parts of the industry, including MRO.

Closest to home, SAA Technical (Saat), until now the continent's largest aircraft maintenance and repair business, has struggled to pay salaries.

Saat was reported to be one of the SAA subsidiaries that would be sold to secure the airline's future. Under plans drawn up by SAA's business rescue administrators, a slimmed-down Saat would continue to function. The staff cuts would be rationalised by the reduction of the SAA fleet from 42 to 16 aircraft and the disposal of older, maintenance-intensive Airbus A320-200s.

Elmar Conradie: In-house MRO is a factor in his airline's success.

In the worst-case scenario, which is closing down SAA, Saat would be the only subsidiary to remain operational.

Saat has, itself, been plagued with allegations of impropriety and mismanagement, including worrying questions about attempts to influence the awarding of contracts.

Corruption allegations also dog SAA's regional feeder airline, SA Express. Four of its six Bombardier Q400s were reported to have been grounded as the beleaguered airline did not have the funds for essential maintenance. The situation had "resulted in the exodus of skilled SA Express workers, who are mostly responsible for aircraft maintenance and technical operations".

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The SAA debacle also spilled over into its rival, Comair, leaving the African ambitions of Lufthansa Technik (LHT) in jeopardy.

LHT last year became the first foreign MRO provider to establish operations in South Africa through its widely heralded contract with Comair.

However, a catalogue of problems has hit Comair, including the grounding of the Boeing 737 MAX aircraft and additional costs the airline faced as it transitioned its fleet maintenance from Saat to LHT. While that transition was progressing as planned, it placed the airline in the difficult position of paying for two providers until at least June 2021. Covid-19 was the last straw.

At the end of March, Comair abandoned its acquisition of Star Air Maintenance, along with a sister entity, Star Air Cargo. Then, in early May, Comair, too, entered business rescue as "the only responsible decision".

LHT was unable to comment on the situation.

Underlying these scenarios is the advantage to airlines of handling their own MRO. Elmar Conradie, chief executive of South African low-cost carrier, FlySafair, said this ability to maintain its own fleet was "without doubt a big factor" in its success.

Speaking to *Business Insider*, he said the airline owed this distinction to its Irish parent, Safair, which ran a maintenance division before FlySafair was launched. It was "a foregone conclusion that we would manage that part of the value chain too", he said.

FlySafair has, at time of writing, avoided entering business rescue. ■

Before the Covid-19 outbreak, the Moroccan aeronautical and space industry had recorded a growth of more than 20% over the last two years. Now the Group of Moroccan Aeronautics and Space Industries (GIMAS) has launched a debate on the future in the aftermath of the pandemic. **Vincent Chappard** *and* **Anuradha Deenapanray** *report.*

MOROCCO BEGINS TO RETHINK ITS FUTURE

The debate is wide open on the short, mid and long-term disruption that Covid-19 will have on Morocco's aerospace industry and the measures that need to be taken to respond, recover, and thrive.

During the past decade, Morocco has emerged as a significant platform for the aerospace industry.

It has set up ecosystems of mutually supporting activities, from manufacturing to MRO, research and development to training, while consolidating its supply chain and attracting leading companies in the sector through a recognised value chain.

The kingdom has invested massively in adequate innovative infrastructure – clusters, aerospace city and Midpark. Most of the leading aeronautical and space groups are present in Morocco.

Many sites either budded or expanded in 2019, while new activities have emerged.

Collins Aerospace Systems, for example, has started to extend its Ratier-Figeac Maroc plant in Casablanca by more than 40% to ensure its load plan on the A320neo and B777X aircraft.

E2IP Technologies has inaugurated its new manufacturing site (6,000sqm), specialising in disruptive technologies, human-machine interface (HMI) solutions, and printable electronics, like on-board electronics, transparent conducting films, and printed heating circuits.

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According to the General Confederation of Moroccan Enterprises, the sector has grown by 20%, with 17,500 qualified jobs, including 42% women, and a local integration rate of 38%. Partnerships between the federation, the ministry of industry, and state bodies have played a key role in this success.

This healthy state is also the result of policies and decisions taken under the leadership of GIMAS president Karim Cheikh, who was unanimously re-elected in December.

GIMAS wants to go a step further by developing additive manufacturing, artificial intelligence, big data, and industry 4.0.

"These innovative tools must be more present in our industry as they will ensure sustainability and increase the market efforts of Moroccan companies," he said.

But, as the sector operates within a globalised supply chain, it has been directly affected by the "gravest ever crisis" facing air transport, aircraft and equipment manufacturers.

Customers and their subcontractors are faced with a wave of cancellations and postponements of orders. Local companies are also directly or indirectly concerned by decisions of leading aeronautical groups to close units abroad.

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According to GIMAS, the Covid-19 slump could reduce the occupancy rate of installed capacity in Morocco by 30% – or even 50% for certain activities, such as MRO and engineering.

The high level of activity recorded in recent years is unlikely to return until 2023, given the problems faced by major global contractors and the long cycles involved in aeronautics. This drop will automatically have a negative effect on human resources, which will have to be adjusted according to the workload.

> **"We are relying on government support to achieve our goals."**
> KARIM CHEIKH

"Our objectives are clear: preserving a maximum number of jobs, the survival and development of our members, and sharing of know-how and technology. We are relying on government support to achieve these goals," said Cheikh.

As the virus struck, GIMAS mobilised its members to participate in the design and development of "100% made in Morocco" respirators for Covid-19 patients. They have been produced in partnership with the ministry of industry, trade, green and digital economy, and the collaboration of numerous technological partners and the medical profession.

Cheikh believes firmly in the resilience of Morocco and Moroccans.

"We need to face the outcome of the Covid-19 pandemic and the transformations that will be needed together. Cards will be reshuffled around the world. This dynamic will allow us – all together – to recover quickly, adapt to the new environment and grow stronger." ■

High-speed: The flypast of Tunisian Air Force fighter aircraft. Below from left: The Tunisian Air Force UH-60M; the Avionav Evada amphibious aircraft prototype; and the Tunisian Air Force C-130J-30.

Tunisia show all set to run for a decade

The first International Aviation and Defence Exhibition (IADE) in Tunisia took place at Djerba-Zarzis International Airport on the island of Djerba in March. **Patrick Dirksen** *and* **Frank Mink** *report.*

This inaugural show was deemed such a success that the organisers have already announced it will take place every two years for the next decade.

Kais Saied, president of the Republic of Tunisia, formally opened the exhibition and met with representatives of both national and international industries.

In total, 111 exhibitors, 38 participating countries and 43 official delegations attended the event, which the organisers described as an opportunity for many investors in the field of aviation and defence to hold business-to-business (B-to-B) and business-to-government (B-to-G) meetings.

There were many fruitful deals done, not least the Tunisian Air Force signing a $240 million contract with Turkish Aerospace Industry (TAI) for six Anka-S unmanned aerial systems and three ground control stations.

The success of the show was confirmed by Brigadier General Mohamed Hajem, who led the Tunisian Air Force delegation at the event. "It opens the door to Africa," he said.

The air force displayed aircraft in both the static and dynamic displays and one of the highlights was its C-130J-30 Hercules, a relatively new addition to the inventory.

The C-130J-30 Hercules is already heavily used as a multipurpose transport aircraft. One is often deployed to Mali in support of the UN mission there and, in early February, it was used to repatriate 12 Tunisian nationals from China because of the coronavirus.

The agile light-attack and reconnaissance OH-58D Kiowa helicopter was also showcased. It can be equipped with an impressive weapons load and sensor suite. One of its main tasks is to provide top cover for the UH-60M Black Hawk helicopter during missions.

Tunisian light-aircraft manufacturer, Avionav, showcased its Rally aircraft as a low-cost surveillance platform. Avionav started a cooperation with Turkish company, Bayhar, to equip the Rally with sensors and ground link capabilities.

This new concept eliminates the requirement for an on-board controller as real-time data can be sent to a ground operator via a line-of-sight data link that has a range of up to 300km.

In addition to two Rally aircraft, the company put its prototype Evada seaplane on the static display.

ABC Composites, from Mghira, Tunisia, specialises in patented prepreg products. It started to design and manufacture ultra-light motorised (ULM) aircraft and drones few years ago. The Senegalese Government will be the launch customer for the ABC Sparrow drone, the prototype of which is currently awaiting approval for first flight.

The Tunisian Garde Nationale presented one of its three Bell 429 helicopters. These are used for a wide variety of tasks, such as traffic monitoring; maritime surveillance; intelligence, surveillance, and reconnaissance (ISR); and support of the elite counter-terrorism tactical unit.

Czech-based Aero Vodochody pitched its L-39NG as a replacement for the aging L-59 Albatross fighters that are currently in the Tunisian Air Force inventory.

The L-39NG is a next-generation low-cost follow-up of the legacy L-39 that served in many African countries.

The US Air Force sent two F-16C Vipers, one C-130J Hercules, and a KC-135R tanker aircraft to underline the good security and defence cooperation between the countries.

Also, a brand new US Navy P-8A Poseidon maritime patrol aircraft was present.

Textron presented its latest Beech 250 model, equipped with a Proline cockpit. Current Beech 200 family operators in the sub-Sahara region report that the aircraft performs very well. Textron aims to extend its network to the western Sahara region.

Dr Mark Pierotti

Marcelle Nethersole *speaks to Abu Dhabi Aviation's commercial director.*

1

What does Abu Dhabi Aviation (ADA) do?

ADA is the largest helicopter airline operations centre and maintenance, repair and overhaul (MRO) company in the Middle East North Africa (MENA) region.

It offers both fixed and rotary-wing aviation services to the oil and gas industry, to regional airlines, to firefighting organisations, to hospitals and ministries of health, as well as many other types of companies. We can do pretty much everything with a helicopter.

We are part of the Abu Dhabi Aviation Group that also includes Royal Jet, Maximus Air Cargo, ADA Training Center, and ADA Millennium.

We are based in Abu Dhabi and have been operating since 1976, supporting the offshore and onshore oil and gas industry in the UAE.

We have, since then, branched out to become, not only a helicopter operator, but also a fixed-wing operator; a lessor of aircraft, offering both dry and wet leases worldwide; a very capable Part 145 MRO, with Bell and Leonardo service centre status; an air training organisation (ATO) for both fixed and rotary wing; and an aviation consultancy called ADA Millennium.

2

What does the company fleet include?

We have around 58 rotary and fixed-wing aircraft operating worldwide, including Bell 212s, Bell 412s, AW139s, Airbus H-135, Dash 8 – Q200, Q300 and Q400.

Our ATO simulators include the Bell 412, the AW139, the E145 Legacy, and the Beechcraft King Air B350.

Our maintenance capability is second to none in the region; we are very proud of what it has achieved.

3

What does ADA do in Africa?

For the last four years, ADA has had dry lease aircraft in Africa, operating with regional airlines and humanitarian operations.

We have, more recently, opened a company in Ghana to take advantage of what we see as new opportunities in west Africa; we hope to compete for the oil and gas tenders.

Africa has a massive potential. The pace of development is great. Oil and gas reserves have been found in many locations and territories. We see Africa as a place to do business.

4

What challenges does the company face in Africa?

The continent comes with challenges for both aircraft operations and leasing.

A few of them include: access to dollars for customers to pay their leases; reliable laws in case of disputes; changes in leadership that bring changes in strategy and priorities; and availability of qualified maintenance services.

For the brave there is business – but it does come with challenges.

5

What's new for ADA?

We are dynamic and we are moving fast. We are watching where all the oil and gas finds are; where all the tenders are being issued.

We are forming close relationships with the big oil and gas companies and the countries with oil fields that need reliable and safe helicopter services to their rigs and locations.

This is a big part of ADA's future, but we still understand that the UAE is our home and our local customer remains very important to us, so we make sure any expansion is with the continued service level our Abu Dhabi customer deserves.

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What does a typical day hold for you?

The ADA commercial department is continuously serving our existing customers, talking to them, trying to understand how we can better serve them.

We are active every day in monitoring the world and all its territories, looking for possibilities where ADA can service the aviation needs of new customers.

We are also talking regularly to other operators, trying to find common ground to build new relationships.

We are constantly applying for tenders, working out prices and coordinating with our operations and maintenance departments to see what we can offer.

These tasks happen daily; it's about sustainable expanding business, where we can serve our shareholders and make the UAE proud.

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