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Wake up call to put governments in a rightful role

It has been conference season in Africa. The African airlines and the African business aviation communities held their annual assemblies in Victoria Falls and Cape Town respectively.

Attending both within a few days of each other allowed an interesting comparison of the challenges that the sectors were facing – interestingly they both cited government as an ongoing barrier to potential growth and prosperity for Africa.

AfBAA – the business aviation association – is still battling a lack of awareness of what business aviation is about. It is still tainted with an image of “Fat Cats” enjoying ill-gotten wealth, while AfBAA would argue there is plenty of evidence to show that the sector actually delivers the people that bring inward investment to a country and do so years before the airlines open the connections to bringing business owners and managers quickly and efficiently to the places they need to go.

Members are hampered by lack of infrastructure development and airspace, so often controlled by the military. In some areas it can take 24 hours or longer to get permission to fly an airway across an African country. AfBAA’s goal to involve more civil aviation authorities in its meetings is a sound one. By encouraging awareness, the group should see change. It has worked in the US and Europe, it is beginning to



work in some parts of the Middle East – and Africa needs it to work across the continent.

Government, too, is blocking progress in air transport. It was refreshing to hear that doyen of the African aviation industry, Girma Wake, challenge a group of African airline leaders at the AFRAA event in Zimbabwe to conclude that government has no place in managing an airline.

Running an airline is not easy. Many have tried and failed.

Planning and executing the plan takes discipline and skill and cannot ebb and flow with the appointment of an individual minister or with public opinion.

Governments should, instead, concentrate on developing the right operational environment with investment in infrastructure – particularly for airspace management, safety and oversight – and opening the way to an easier, and cheaper, movement of people.

A long-time advocate for the airlines and this battle with government is Dr Elijah Chingosho the secretary-general of AFRAA. He will be retiring from his post during 2017 and will be greatly missed. Like many others in the industry, I would like to wish him the very best for his retirement and thank him for the commitment and guidance he has shown over the past seven years in that industry leadership role.

Safe landings

Alan Peaford, Editor-in-Chief

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COVER: New Air Zimbabwe CEO, Captain Ripton Muzenda . PICTURE: BILLYPIX

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Eye-in-the-sky helping to save lives

Since June, more than 19,000 men, women and children have been saved from drowning in the Mediterranean thanks to the search-and-rescue efforts of a pair of Schiebel Camcopter S-100 drones.

The aircraft, operating from the Migrant Offshore Aid Station (MOAS) ship, MY Phoenix, help identify those refugees in trouble as they try to make the perilous sea crossing to Europe.

“The role of our Camcopter S-100 has once again been so crucial; the information it generates makes for the best possible coordination of everyone involved in the rescue missions,” said Hannes Hecher, CEO of Vienna-based MOAS, a charity dedicated to saving lives at sea by providing professional search and rescue to people who are in distress.



Kigali selected as site of SIAA 2018

The AviAssist Foundation has announced that the 6th Safety in African Aviation (SiAA) conference will be held in Kigali, Rwanda on March 19 and 20 2018. It will be hosted by RwandAir.

“We are looking forward to bringing SiAA back to Rwanda,” said Foundation director Tom Kok. RwandAir deputy chief executive officer, Jean Paul Nyirubutama, added: “Partnering on this event gives us the opportunity not only to continuously invest in our own safety performance but also support the region in doing the same.”

Blue Crane rescue bid

South Africa's Fly Blue Crane has entered into business rescue.

Fly Blue Crane has been

in talks with an undisclosed Gulf carrier over the possible sale of up to 25% equity. The transaction has, however, been hampered by the terms of a \$2.5 million bridging finance loan secured from the state-run Industrial Development Corporation, which requires the carrier to not negatively affect South Africa's state-owned airlines.

Tanzania investment is on the radar

The Tanzanian Civil Aviation Authority (TCAA) has announced plans for the acquisition of at least four modern aerospace surveillance radar systems to replace the obsolete technology at the Julius Nyerere International Airport (JNIA) and expand national aerospace coverage to airports outside the capital, Dar es Salaam.

Guinea's bid for national carrier

Souaré Antonio, a wealthy Guinean businessman, is hoping to set up a national airline for the small West African country.

Antonio met with Guinea's National Directorate of Civil Aviation (DNAC) on November 26 to discuss the requirements of setting up the company, which would be called Guinea Airlines.

Souaré also spoke of Chinese partners who could be willing to invest in improving airport facilities in Conakry, Guinea's capital.

Air Austral and Air India codeshare

Air Austral and Air India have signed a codeshare agreement that enables Air India to codeshare on Air Austral-operated flights on the Chennai-Reunion

sector, as well as beyond Reunion to/from Johannesburg, Seychelles, Mauritius and Madagascar.

“This agreement reflects our commitment to cooperate with airline partners in the region in order to enhance our customer offerings,” said Jean-Marc Grazzini, executive vice-president commercial division, Air Austral.

“With Air India, we will offer an increase of choice of destinations in India for our passengers and the connectivity of Reunion Island to the Indian Ocean will be greatly improved.”

Zambia airports arrivals increase

Zambia Airports Corporation says the country's airports have seen an increase in passenger traffic in 2016 of 1.3% compared with 2015.

Records indicate that a

total of 456,750 passengers passed through the four main international airports of Kenneth Kaunda, Simon Mwansa Kapwepwe, Harry Mwaanga Nkumbula and Mfuwe.

Air Algérie launches cargo unit

Air Algérie has resumed dedicated freighter operations following the launch of its Air Algérie Cargo unit in November.

Using its only Lockheed Hercules freighter 7T-VHL, the Algerian national airline began weekly flights from Algiers to Lyon St Exupéry, France on November 15.

Additional services to west and central Africa are also planned. Two B737-700s, configured in a quick-change layout, may also be used on some of these cargo services with plans to convert two B737-800s to full freighters.

Tassili secures Krechba charter

Tassili Airlines parent firm, Sonatrach Group, has signed an agreement with Salah Gas for the provision of charter flights to the firm's Sahara-based gas processing plants.

Under the terms of the three-year contract, Tassili will operate weekly Dash 8-400 flights to Krechba, located deep in the Sahara Desert about 1,200 kilometres south of Algiers, from Algiers on two different routes; one via Oran and the other via Constantine.

SAA brings in AAR for component support.

AAR has signed a five-year agreement to provide power-by-the-hour component inventory management and repair services to South African Airways Technical (SAA).

The contract is valued at up to \$125 million.

"This agreement marks a significant expansion of AAR's aviation and supply chain services in emerging markets," said David P Storch, president, chairman and CEO, AAR. "We are pleased to win the confidence of this leading airline customer in Africa."

MTU wins contract for Kenya E190 fleet

MTU Maintenance and Kenya Airways have concluded negotiations on a contract for the maintenance of the engines used on the airline's Embraer 190 aircraft.

Fastjet loses chairman

Fastjet chairman Colin Child resigned after the airline said it would seek more funds sooner than originally expected to achieve a turnaround after months of the company battling its second-biggest investor to retain him.



Express targets fleet fantastic with lease deal

South African Express (SA Express) is closing in on a lease deal for 20 aircraft for delivery over the next five years, as it seeks to upsize to 90-seat jets from its current fleet of 50- to 70-seaters.

"We are in the process of re-fleeting. We are trying to move away from smaller aircraft to bigger jets," said SA Express CEO, Inati Ntshanga. "It is going well. We are in advanced discussions with lessors."

SA Express currently operates a fleet of 20 aircraft, comprising eight Bombardier CRJ200s, two CRJ700s and 10 Q400s.

"We want to have a common fleet by 2022," Ntshanga said. "As the current leases expire, we will replace them with 90-seat aircraft."

While SA Express is considering COMAC, the Mitsubishi MRJ90 and the Sukhoi Superjet 100 (SSJ100), Ntshanga said the CRJ900 and Embraer E190 are those most in contention. He would consider E190-E2s, but this would depend on timing.

"This is a huge acquisition, so we need approval. By the end of February, we should have signed and closed the deal," he said.

Caverton adds second Twin Otter

Caverton Helicopters has signed a firm order agreement with Viking Air for a second DHC-6-400 Twin Otter. It will utilise the turboprop for onshore pipeline surveillance and passenger transfer services for the Cameroon Oil Transportation Company (COTCO) along the 1,070-kilometre underground pipeline route between the Doba oil fields in Chad and the offshore export terminal in Cameroon.

Three-way partnership

EgyptAir, Boeing, and Dubai Aerospace Enterprise (DAE) have officially signed

a cooperation agreement. The partnership aims at enhancing operational efficiency, improving customer satisfaction and creating value for the companies involved and their customers.

"This new agreement means adding eight new Boeing Next-Generation 737s to our fleet," said EgyptAir chairman and CEO Safwat Musallam.

Delivery of the first aircraft is expected in February 2017.

Tunisia open skies agreement with EU

Tunisia is expecting to sign an open skies agreement with the European Union. Tunisian Minister of

Tourism, Selma Elloumi, said that should the treaty be signed and ratified, it could be implemented as early as March next year.

However, among the caveats to be added is a clause that will restrict foreign access to Tunis Carthage International Airport for a period of two years.

St Helena receives repeat approval

Air Safety Support International (ASSI) issued a second aerodrome certificate to St Helena Airport in October – having been satisfied that the airport infrastructure, aviation security measures and air traffic control

service complies with international aviation safety and security standards.

These re-issued approvals supersede the previous versions and will remain in force until May 9 2017.

Smart move for O R Tambo Airport

Johannesburg's O R Tambo International Airport has become the first African airport to implement a Smart Security checkpoint.

The system, which came into effect on November 8, will digitise the security check process, speed up passenger progress through security and further enhance security through use of state-of-the-art scanners.

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Lesotho receives Spitfire to recognise war effort

Lesotho is now the proud owner of a replica Spitfire which was presented to King Letsie III in recognition of the kingdom's role as one of the unsung heroes of the Second World War.

The country's tiny population funded 24 Spitfire fighter aircraft - enough to equip two entire RAF squadrons - during the Battle of Britain, a donation which per-capita

was greater than any other country in the world.

The Spitfire was built by the Spitfire Heritage Trust and took six years to construct.

Donations to the fund came from a number of sources - including a UK-based gin manufacturer, Spitfire Heritage Gin, which contributed through every bottle sold.

The Spitfire was handed over on Armistice Day.

Marrakech date for MEBAA 2017

Building on the success of the first event in 2015, MEBAA Show Morocco, aimed at North African business aviation will be held at Menara Airport, Marrakech on September 12-13, 2017. MEBAA chairman Ali Alnaqbi foresees an event with more than 65 exhibitors and 2,500 visitors.

Air Mauritius CEO contract terminated

The Air Mauritius board of directors terminated the contract of chief executive officer Megh Pillay in October.

In a statement, the airline said Indradev (Raja) Buton, the then EVP strategic planning and information systems, had been appointed officer in charge of the company until further notice.

Buton has held this position on several occasions in the past. "The Board has vested in him all the powers at the helm of the leadership team to ensure the smooth running of the company within the established

governance structure," the statement said.

Colombe Air resumes services

Burkina Faso's Colombe Air has resumed commercial passenger flights after a near year-long suspension of operations.

Its only route entails shuttle services between the capital, Ouagadougou, and the country's second city, Bobo Dioulasso. But there are plans at some point to add Bamako in Mali, Abidjan, in Nigeria and Accra in Ghana.

Cronos adds A319

Equatorial Guinea's Cronos Airlines will shortly add a maiden A319-100 to its fleet.

EgyptAir completes Indian pilot training

EgyptAir Training Center has implemented a programme for crews of Indian pilots on type B737 -800s and A320s. Programmes include theory and practical training on flight simulators by Egyptian instructors.



IATA's new regional VP

The International Air Transport Association (IATA) has appointed Muhammad Ali Albakri as regional vice president for Africa and the Middle East.

Albakri, who started his new role on January 1, is based in the IATA regional office in Amman, Jordan.

"This is a critical role at IATA. Africa and the Middle East are among the fastest growing markets for air transport," said Alexandre de Juniac, IATA's director general and CEO.

"While the region has tremendous potential, it also faces some big challenges. Infrastructure, regulation and taxation must align to support the social and economic benefits of a successful aviation sector. I am confident that Muhammad's solid aviation background will deliver great value to our members and aviation in general across the region."

Kulula and Etihad codeshare deal

South African low-cost carrier, Kulula, will be increasing its international passengers after a new codeshare deal with Gulf airline, Etihad Airways.

The Abu-Dhabi-based airline is to offer its customers flight options to a number of key cities in South Africa that include Cape Town, Durban, George and East London via Johannesburg.

Goldstar's US routes

Ghana's new airline, Goldstar Air, will operate services to Baltimore Washington International Airport from early of 2017, if it gets its operator certificate. Ghana has not had a domestic long-haul carrier since Ghana Airways stopped operations at the end of 2015, and Goldstar plans to fill that void in the west African country.

Azman MRO deal

Nigeria's Azman Air has selected VD Gulf to perform maintenance work on one of its Boeing 737CL fleet.

Air Côte d'Ivoire spreads its wings

Last year, Air Côte d'Ivoire placed an order with Airbus for three A320neos and two A320s, the Ivorian national airline becoming the first African airline to order the A320neo.

CEO, René Décurey, said that this demonstrated the airline's commitment to accelerate its growth in western and central Africa, which has already resulted in it tripling passenger numbers over the past three years.

The airline's fleet now comprises four A319s, one A320 and four leased Bombardier Q400s. The first A320neo is scheduled for delivery in July 2017.

Libyan Wings looks for new aircraft

The A321 tops Libyan Wings' wanted list for leased aircraft, followed by the A320 and then the A319.

The carrier, which began operations last October, currently operates a fleet of two A319s, servicing a thrice daily service to Tunis, a three-times-a-week service from Misrata Airport to the southern Tunisian city of Sfax, and a four-times-a-week service to Istanbul.

CEO Edgardo Badiali said the carrier was also hoping to upgrade its Istanbul service to daily and



RwandAir gains ISAGO certification

RwandAir has achieved certification of the International Air Transport Association (IATA) safety audit for ground operations (ISAGO).

Following the IATA audit, RwandAir is now a certified ground service provider (GSP) under the ISAGO registry for two years until July 2018.

Wake QA, an IATA-approved audit organisation, concluded the process with

minimal findings and observations, the airline said.

"With this achievement, RwandAir will provide enhanced ground-handling services, with high safety standards, to its customer airlines and private jets operating at Kigali International Airport, while maximising productivity," said John Mirenge, the airline's CEO.

to shortly get the green light to begin flights to Casablanca.

"We have been running at 90% load factor and a more than decent yield. We now need to increase frequency and are in discussions for possible new destinations," said Badiali.

Ghana to support Africa Airshow

The Ghana Civil Aviation Authority (GCAA) will support the First Aerospace & Aviation Exhibition and Conferences of Western

Africa, in Accra, from October 24-26 2017.

"We are happy to announce this partnership and support this event. Our expertise will help the organiser of the conference and we are aiming at three days of networking for accelerated air transport growth in Africa," said Simon Allotey, director general GCAA.

Uganda's SKA Air secures AOC

SKA Air has secured its air operator's certificate (AOC) from the Ugandan Civil

Aviation Authority.

Although no official launch plans have yet been divulged, the cargo operator has a single B727-200 on its books to be used for regional central and east African operations.

Sudan hunting down slot sellers

The Sudanese Ministry of Justice has announced that, through Interpol, it has issued an international arrest warrant for all persons involved in the sale of Sudan Airways' London Heathrow slot.

Smart helicopter for Egypt electrics

Egypt's Smart Aviation is to acquire a Eurocopter AS350B3 to service contracts with electrical engineering firms active across Egypt. The helicopter, which will be acquired outright and not leased in order to save on costs, will be used for the cleaning of power transmission pylons and other supporting infrastructure.

RwandAir first A330

RwandAir took delivery of its first of two Airbus long-haul wide-body A330 aircraft in September.

The airline becomes the east African launch operator of the aircraft and Airbus' newest customer.

The A330 is the first wide-body aircraft in RwandAir's fleet. Powered by Rolls-Royce Trent 772B engines, the aircraft will be deployed on medium- and long-haul routes from its Kigali home base to destinations throughout Europe, Asia and the Middle East.

Mauritius support

Air France Industries KLM Engineering & Maintenance has signed a new agreement with Air Mauritius to include component support for the Indian Ocean carrier's ATR 72 turboprops.

It is an hour-based agreement.



Herculean effort to test St Helena Airport

A Lockheed Martin C130J Hercules aircraft, operated by the Royal Air Force has successfully conducted a technical flight at St Helena Airport as part of the proving programme for the island's new airport.

The aircraft carried out approaches to both runways, conducted a fly-by at 500 feet and a 'teardrop' turn - landing without problem on Runway 20, from the north.

The flight report will help St Helena Airport assess operating and landing factors and build a more comprehensive picture of the conditions under which it will be asking a scheduled air service to operate, the Government said.

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*Captain Ripton Muzenda became CEO of Air Zimbabwe in August 2016 and has been tasked with restructuring the airline he used to fly for. As he explained to **Victoria Moores**, this means adjusting its organisational and cost structures.*

MUZENDA'S ZIM CARD

When Captain Ripton Muzenda left Air Zimbabwe in 2008, the airline employed around 85 pilots, 200 cabin crew and operated to a wide range of destinations in Africa, as well as long-haul flights to Athens, Beijing, Dubai, Frankfurt, London and Singapore.

On returning in 2016, he came back to an airline with around 30 pilots, 50 cabin crew and a small short-haul network, linking Harare with Bulawayo (Zimbabwe), Dar es Salaam (Tanzania), Johannesburg (South Africa) and Victoria Falls (Zimbabwe).

"A lot of tourists used to come. It didn't matter that we didn't have connections, because we used to bring them from London and we had connections once they landed. Germans from Frankfurt used to go with us to Mauritius for a week. What changed is that the tourists stopped coming but the airline didn't quite adjust. The last flight to London was in December 2011."

When Air Zimbabwe was big, the CEO at the time split the company into about seven strategic business units, including the airline, handling, maintenance, passenger and technical training. The airline was grounded for a while in 2011-12 but its staff continued going to work, building up debts and maintaining a top-heavy structure that was no longer relevant.

"There were lots of divisions and with that they created general managers; below them there were directors. Salaries and benefits



went up. This is the structure that I've come back and inherited. There is a gross mismatch between the size of the organisation and the actual operations."

One of Muzenda's top priorities is, therefore, to cut costs and to restructure the business. This involves simplifying the upper management to three key positions: CEO, COO and executive manager for airline systems and administration.

The administrative side is important, as the airline generates a lot of paperwork and its systems need to be modernised.

Below these top executives will be a team of managers, responsible for areas like flight operations, HR and maintenance. Under the previous structure there were more than 20 managers; this has been slimmed to nine. "That is still a lot considering the size of our fleet, but I thought it was enough of a rationalisation," Muzenda said.

The former managers, who were mainly in

acting positions, will revert to their old roles, although these may also change under the new structure.

Today, Air Zimbabwe employs around 430 staff, compared with more than 1,000 in the past. But some critical skills were lost along the way and may need replacing. "That's why it is important to do a staff audit. We're not just going to aim for a number. We're going to look for the specific skills and positions that we need."

Air Zimbabwe plans to bring in consultants to help restructure and simplify its complex collection of labour contracts, but the core strategy will remain under the control of the board and its Government shareholders. When we spoke in November, Muzenda was poised to go on a strategy retreat to flesh out the budget and business plan, with the aim of completing them by the end of 2016 for Government approval.

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“I would like Air Zimbabwe to be the airline that best connects our region – the Southern African Development Community (SADEC) – and the rest of the world.”
CAPTAIN RIPTON MUZENDA

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“Definitely the first thing we need to do is build up a regional hub. In all the time that we operated, we failed to do that. It was mostly point-to-point, except for the European tourists, who used to come into Harare and then be fed on. I would like Air Zimbabwe to be the airline that best connects our region – the Southern African Development Community (SADEC) – and the rest of the world,” he said.

Muzenda believes the potential is there. Emirates operates daily Boeing 777-300ER flights, which are “full every day”. Ethiopian offers 11 flights a week and South African Airways (SAA) just requested 120 weekly frequencies and secured the green light to operate 85 of these. This means customers come to the country via Addis Ababa (Ethiopia), Dubai, Nairobi (Kenya), or Johannesburg (South Africa) – and in the case of Johannesburg they overfly Harare and then come back.

“What people are crying out for is direct London flights. We need to go long-haul. The primary route for us is London and then Asia, but with strong regional connections. We can’t just limit ourselves to people out of Harare.”

Muzenda recognises the value of developing strong regional African services within SADEC and he is keen to add Cape Town, as well as more flights from Victoria Falls. He also believes that codeshares and partnerships could be a good way of strengthening Air Zimbabwe’s network and sees a need for well-coordinated schedules, higher frequencies and smaller aircraft.



At the moment, Air Zimbabwe has a fleet of two Boeing 767s, two 737-200s, two leased Airbus A320s (one of these is grounded) and a single Xian MA60 turboprop. However, because of the relatively large aircraft size, frequencies are low. With no long-haul services to feed or be fed by, this means its regional services are being hit by excessive ground time, weak utilisation and poor load factors. For example, the Johannesburg aircraft leaves in the morning and returns in the evening, spending most of the day on the ground.

“We have an issue with low aircraft productivity,” Muzenda said. “We are not using aircraft because they are not the right size.”

He is, ideally, looking for three or four 50- to 90-seat turboprops or jets to build up frequencies and ultimately support larger aircraft operations.

Once the airline works out the exact seat capacity that it needs, Muzenda’s team will see what is available and then take a call on whether to buy or lease the aircraft. Muzenda believes used aircraft could be a viable option.

On long-haul, Muzenda sees a need for two to three aircraft, like the 767. There is a possibility that Air Zimbabwe will maintain its existing aircraft, which are owned by the Government, but upgrade them with new interiors and in-flight entertainment. This would help reinforce the airline’s product.



Captain Ripton Muzenda: “The best part is I finally get to have some say in how things are done at Air Zimbabwe. Pilots complain, but they have no control over what is done.”

Over the last few years, Air Zimbabwe has lost quite a lot of its frequent flyers and Muzenda is hoping that strengthening the airline’s schedule integrity will help regain customer loyalty.

State-owned Air Zimbabwe is also ultimately looking to team up with a strategic partner, potentially through an equity buy-in. Discussions are already under way, but Muzenda knows this is not a silver-bullet solution. “We need to clean up our own house, because no partner will come in and do it for us.”

This partner could be a larger airline, but non-aviation investors are also an option. “A larger airline would be good for distribution,” he said, but the decision about Air Zimbabwe’s future partner and what happens with its fleet will have to come from the Government. “That [the fleet] is more of a priority than a partnership; getting the right size of aircraft so that we can utilise them a lot more.”

Another issue to be addressed is the airline’s historic debt. Muzenda declined to comment on the amount in question, saying: “It is a big figure – it is not peanuts.” Research reveals that the airline’s total debt is in the region of \$330 million. The majority of this is domestic debt, such as unpaid taxes. The Government may be willing to assume this debt as part of any strategic partnership.

Muzenda confirmed that Air Zimbabwe is loss-making, but the airline is also behind on its financial reporting, so he was unable to give a current figure. These accounts, which are all produced manually, need to be brought up-to-date

and Air Zimbabwe needs to get back into the International Air Transport Association (IATA) clearing house.

While cutting costs and losses are a priority, Muzenda has no plans to change the airline’s traditional product, or establish a low-cost subsidiary. “We are not going to try to be a low-cost carrier or anything like that. Low-cost subsidiaries don’t seem to work. You are either one thing, or the other. We are what we are, but we are trying to manage and cut our costs.”

Speaking of being one thing or another, does Muzenda miss his flying days? He spent 19 years with Air Zimbabwe, progressing from being a cadet pilot to 767 fleet manager and senior training captain. He flew the BAe146, 737 and 767 and led Air Zimbabwe through the IATA operational safety audit (IOSA) certification in 2008. Then Muzenda moved on to fly 747-400s for Singapore Airlines (SIA), where he spent seven years and also secured an aviation MSC from Coventry University.

“I love flying but I was getting bored with it,” he said. “When I left Air Zimbabwe, I’d kind of had enough. I was travelling a lot, but going nowhere – that was how I felt. When I went to Singapore, it reignited my passion because I was flying to new places all over the world. But after five years I really wanted to do some admin. Once in a while I would like to fly, but it would be limited.”



As a manager for pilot line operations for SIA, Muzenda was meant to divide his time equally between flying and office work. However, in practice he did relatively little flying. Then, in 2015, he had to return to Zimbabwe when his work permit was not renewed.

“The move wasn’t planned. I was trying to apply for line flying jobs but, to be honest, it wasn’t aspirational at all. It was just to sustain my family.”

But then the CEO’s position caught his attention. “The best part is I finally get to have some say in how things are done at Air Zimbabwe. Pilots complain, but they have no control over what is done. Now I finally get a chance to have my say. At the same time, I also get to see the challenges that I didn’t know were there. There is a lot of juggling and balancing of different demands.”

Muzenda is working 12- to 13-hour days and is in the office at weekends until 10-11pm. Even finding time for lunch is a challenge, so fitting in any flying would be a luxury.

“The challenge is just to find some time. Later on, when everything stabilises, it would be nice to fly, but if I did it would have to be over weekends, maybe short flights. I get a lot of satisfaction being in the office because there is a lot of thinking. There is a lot to do but I am passionate about it. I always loved Air Zimbabwe and I am allowed to do whatever it takes, whatever needs to be done.”



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Things are looking good for Badr...



Almutaz Ahmed Shora: "We can't help politics. We focus on being an airline. It is tough but we are getting there."

Badr Airlines is the latest in a growing list of carriers to join the African Airlines Association (AFRAA).

Alan Peaford found out about the airline and its ambitions.

Just two years after starting Badr Airlines, the Khartoum-based privately-owned carrier has gone through the initial birthing pains and is now ready for a growth spurt.

Deputy chief executive, Almutaz Ahmed Shora, was attending the AFRAA annual assembly and exuded confidence. "A lot of people don't know us," he said, "but I am sure that by this time next year they will."

Badr was founded in 2014 by its chief executive, Ahmed Osman Mohamed Ahmed Abu Shaira, and Hashim Yousif El Digair. The joint-owners believed they could apply service standards that would change the Sudanese market.

"There is Sudan Airways and, on the main route from Khartoum to Cairo, there is EgyptAir. But there was room for a high-standard carrier and we provided those service standards," Shora said.

The results speak for themselves. On the Cairo route, previously dominated by the Egyptian national carrier, Badr is recording 100% load for its business-class and increasing economy figures. "The flight is full. And that is down to quality of service," Shora said. "We need more aircraft and more opportunities."



Badr currently operates six classic Boeing 737 aircraft and was expecting three more to join the fleet by January 2017. "We will have 11 aircraft by June and 15 by the end of 2017. It is ambitious but I look forward to being back at AFRAA at the end of 2017 and it being a reality," he said.

The airline currently serves five domestic routes and offers regional and international flights to Juba in South Sudan, Jeddah in Saudi Arabia, and Egyptian capital, Cairo.

"At the moment, we operate four rotations to Cairo but will be offering 10 flights a week as the new aircraft are introduced," Shora said.

It will also add to its international listings with a planned coupling with Dubai.

Growing operations has been challenging. Sudan remains on a sanctions list, which makes trading and investment difficult. "We can't help politics," Shora said. "We focus on being an airline. It is tough but we are getting there."

Badr's target is to reach the two million passenger figure by the end of 2017 – more than three times its current 600,000.



The key to growth will be the Khartoum hub. "At the moment, there is no transit terminal. You wouldn't meet humanitarian standards keeping people on the aircraft for an hour at a time so we began discussions with the airport authority. The result is that we have the green light to develop a transit lounge at the airport, which will open in 2017.

"We see great potential where passengers can buy tickets in Dhofar, for example, and get to Cairo through Khartoum without complication. It opens up the potential."

The airline is also working with the airport authority to develop other services, such as fast-track for premium passengers.

With a 98.2% on-time departure rating, the new carrier is achieving targets. "We have really focused on customer service and customer relations. On board – even on a 15-minute domestic flight – we can serve a hot meal. People are noticing the difference."

Premium passengers are a clear target for Badr and reputation is at the heart of its offering.

Badr has been keen to meet international standards with its training and MRO facilities. It has worked with Lufthansa for flight crew training and EgyptAir for cabin crew. Maintenance is carried out in Latvia.

It may be small now – but make Badr a name to remember.

Badr's target is to reach the two million passenger figure by the end of 2017



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“Today the company is in better shape.
And now we need to develop it.”

ABDELHAMID ADDOU



MAROC AND ITS FUTURE ROLE...

«Le Maroc et son futur rôle» – Page 24

Emboldened by Royal Air Maroc's successful restructuring programme, new boss Abdelhamid Addou is plotting a return to growth for the flag-carrier.
Martin Rivers reports from Casablanca.

When King Mohammed VI appointed Abdelhamid Addou as chairman and chief executive of Royal Air Maroc in February, he fired the starting gun for a new era of growth at the flag-carrier after five tough years of restructuring.

The exact nature of that growth has not yet been finalised – management are promising to unveil a new vision in early 2017 – but, as Casablanca rolled out the red carpet to host the 49th Arab Air Carriers annual meeting in November it became clear that Morocco's flag-carrier is once again in the ascendance.

“The idea today is based on the new health of the company,” Addou said during an interview at

Casablanca's old Anfa Airport, where Royal Air Maroc is headquartered.

“We had to make big sacrifices [during the restructuring] in terms of routes, in order to make the business more sustainable from a financial standpoint. The results are very good. So now we have to decide how we can build the company of the future.

“First we are going to launch a study and this will help us to assess the potential of the market; which type of customers from which areas in the world; what could be our positioning in terms of brand etc.

“From a logical standpoint, there should be capacity growth. But

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expansion is not only a matter of volume! It's also a matter of quality of experience. We need to be much more innovative and much more creative towards the customer."

Royal Air Maroc today serves 34 destinations in Europe, 30 in Africa, six in the Middle East, three in North America, and two in South America with a fleet of 55 mostly Boeing aircraft. Eight out of ten flights originate or land in Casablanca's Mohammed V International Airport, which serves as a bridging point for West Africa and the rest of the world.

Much like Turkey, however, Morocco's aviation sector is about more than just sixth-freedom connectivity.

The flag-carrier flies to 17 domestic airports besides Casablanca, including major tourism markets like Marrakesh, Agadir, Tangier and Fez.

Point-to-point operations from these secondary airports were slashed by Royal Air Maroc after the Government signed an open-sky treaty with Europe in 2006 – opening the floodgates to European low-cost competition.

As a consequence of the liberalisation, Royal Air Maroc now provides just 12% of capacity in Marrakesh, significantly trailing market-leaders Ryanair (27%) and EasyJet (18%).

Strengthening its Casablanca hub at the expense of point-to-point connectivity was a prudent strategy, especially when complemented by cost-cutting measures to boost productivity and reduce wastage. After losing \$455 million between 2009-12, Royal Air Maroc has now been in the black for three consecutive years. Its passenger revenues have remained broadly flat

since the first year of losses, despite the workforce almost halving in size.

"So we have ended the last strategy that was implemented by my predecessor, which brought a much healthier situation," Addou affirmed. "Today the company is in better shape. And now we need to develop it.

"I have my feelings [about how best to do this]. The team has their experience. But, still, I would like to go from the studies – from the data that we will get from the studies – before deciding any vision and strategy. Clearly, Casablanca is a strong hub and needs to be strengthened. For sure we will capitalise on all the good results that we have had over the last five years. But there are so many other opportunities that we need to address as well."



The chief executive cited tourism as one attractive growth avenue – unsurprisingly, perhaps, given his prior role as managing director of the Moroccan National Tourist Office.

Under Morocco's Vision 2020 strategy, the Government has set an official target of 20 million international tourists per year by the end of the decade. That is beginning to look like wishful thinking, with just 10.2 million foreigners coming to the country in 2015 – a modest reduction on the previous year. The World Travel and Tourism Council gives a much more conservative forecast of 13.2 million tourists by 2025.

Rising terrorist activity across Europe, North

Africa and the Middle East has undoubtedly played a part in warding off tourists, despite Morocco's well-established reputation as one of the Arab world's safest countries.

Though by no means immune to jihadist violence – a bombing killed 17 people, mostly tourists, in Marrakesh in 2011 – the country has so far not experienced a successful attack by Daesh-inspired militants. That contrasts markedly with other badly affected tourism hotspots like France, Turkey and Tunisia.

"Unfortunately, when any terrorism happens somewhere in Europe, it has a huge impact on our region – even though we are in a very safe region," Addou said.

"This impact brings figures that are not positive for us. However, when you look at our results since the beginning of the year, we are still seeing double-digit growth. This means we were able to limit the impact and gain market share from our competitors. It shows the dynamism of the team and the spirit around the brand. And it makes us very positive about building more capacity and more business."

The chief executive pointed to growth of 14% in Africa and 11% in Europe, defying broader stagnation in the market. Even in France – the European country worst affected by the rise of Daesh – Royal Air Maroc has expanded by 5%.

As management look to build on this success, cooperation with the Tourism Ministry, under the banner of Vision 2020, is a foregone conclusion.

"Once the strategy is ready, I strongly believe we will be asked to come back again in tourism. It's a strong pillar in our economy," Addou

SOMMAIRE

LE MAROC ET SON FUTUR RÔLE ...

Encouragé par la réussite de la restructuration de Royal Air Maroc, Abdelhamid Addou mise sur un retour à la croissance.

Un reportage de Martin Rivers depuis Casablanca.

Lorsque le roi Mohammed VI a nommé Abdelhamid Addou PDG de Royal Air Maroc (RAM) en février 2016, il a voulu propulser la compagnie dans une nouvelle ère de croissance après cinq années de restructuration. La compagnie prévoit de dévoiler, début 2017, sa nouvelle vision.

Selon Abdelhamid Addou, RAM a dû faire de gros sacrifices. « Nous devons maintenant décider comment nous allons bâtir le futur de la compagnie. Il faut augmenter notre capacité et apporter des innovations pour nos clients. »

RAM dessert aujourd'hui 34 destinations en Europe, 30 en Afrique, six au Moyen-Orient, trois en Amérique du Nord et deux en Amérique du Sud. 17 aéroports domestiques sont également desservis en particulier les principaux marchés touristiques tels que

Marrakech, Agadir, Tanger et Fès.

RAM a renforcé son hub de Casablanca et réduit les opérations points à points de ses aéroports domestiques suite à la signature du traité de ciel ouvert avec l'UE en 2016, ouvrant la voie à la concurrence des compagnies européennes à bas coût. RAM ne fournit que 12% de la capacité de l'aéroport de Marrakech alors que Ryanair est à 27% et EasyJet 18%.

Cette stratégie a été complétée par des réductions de coût. Après avoir perdu 435 millions de dollars entre 2009 et 2012, RAM est sortie du rouge depuis trois ans. Dans le cadre de la stratégie « Vision 2020 », le gouvernement marocain a également fixé un objectif de 20 millions de touristes internationaux annuellement d'ici la fin de la décennie. Le pays a

pourtant enregistré un léger recul avec 10,2 millions de visiteurs étrangers en 2015.

L'intensification des actes terroristes en Europe, en Afrique du Nord et au Moyen-Orient a indéniablement joué un rôle néfaste même si le Maroc a la réputation d'être un pays sûr. Malgré ces événements, RAM affiche une croissance à 2 chiffres pour 2016. « Nous allons certainement lancer de nouvelles routes point à point. »

Concernant la création d'une filiale à bas coût, le PDG de RAM reste prudent. « Je ne suis pas sûr que ce soit dans notre ADN de nous lancer dans ce type de business. »

Abdelhamid Addou souhaite avant tout améliorer le service à la clientèle avec entre autres des nouveaux menus et la disponibilité du WiFi. L'introduction des kiosques en libre-service à Casablanca a déjà réduit les files d'attente de 35%.

Le DG de Qatar Airways, Akbar Al Baker, a exprimé son intérêt de prendre entre 25 à 49% du capital de RAM. Les deux compagnies ont lancé une JV en 2015, avec à la clé un partage de codes. Selon Abdelhamid



Addou, « RAM est aujourd'hui très satisfaite de ce partenariat et souhaite renforcer cet accord. Il n'y a pas d'autres discussions à l'heure actuelle et RAM ne cherche pas explicitement un investisseur. » RAM souhaite également adhérer à l'alliance Oneworld. Des discussions sont en cours. Les partenariats sont également une priorité. Des négociations de codeshare sont en cours avec WestJet et Alitalia. Asky Airlines et Air Côte d'Ivoire sont également des partenaires potentiels. Concernant la flotte d'avions, RAM recevra son cinquième B787 en janvier. RAM a aussi besoin d'acquiescer de nouveaux avions régionaux. Les discussions sont ouvertes avec les avionneurs et le fabricant du Soukhoï SuperJet 100 fait un lobbying intensif auprès de la compagnie marocaine.

“This is just the beginning. We need to be much more innovative and customer-centric. The customer is the one who chooses an airline – not the other way around!”
ABDELHAMID ADDOU

affirmed. “You cannot do it at any cost, of course. We need to check at what cost we can do it. But, definitely we will be asked to partner with tourism [authorities]. We will definitely launch new point-to-point routes.”

Royal Air Maroc has already begun modifying its schedules to better accommodate holidaymakers. Several early morning flights from Marrakesh have been pushed back until later in the day, for example, in order to minimise inconvenience.

“If you have to wake-up at four o'clock in the morning you lose one day,” the chief executive noted. “I'd rather give a good experience to these tourists; [let them] have a flight later in the day, so that they enjoy their morning, have a good breakfast, and go back to their European cities without being hassled by the timing.”

Asked whether the airline will consider establishing its own low-cost carrier, Addou struck a cautious tone. “I'm not sure it's in our DNA to launch that type of product,” he admitted, recalling the airline's difficult experiences with Atlas Blue, a Marrakesh-based subsidiary that was set up in 2004 but quickly absorbed back into the mainline operation. “Still, when the strategy is ready, we will see what are the needs and then we can decide.”



Tourism is not the only sector on Addou's watchlist. He also talks up the new strategy being developed by the Ministry of Industry and Commerce, suggesting that any move to create a hub for automobile construction would require significant airlift for both cargo and passengers.

Likewise, the ‘green Morocco plan’, developed by the Ministry of Agriculture and Fisheries, will drive up demand for perishable exports from both Morocco and Africa.

“All these strategies – tourism, agriculture, industry – will be studied,” he said. “There will be a real focus on this to see if we can be a partner to these strategies. We will build our new vision around the market, but also on the strategies that are being implemented by Morocco.”

If one strand unites the disparate and, as-yet, hypothetical drivers of the business plan, it is Addou's unbridled enthusiasm for improving customer service. He admits the flag-carrier has not always met expectations when it comes to the passenger experience but believes this will change with new in-flight menus and a possible roll-out of WiFi streaming for handheld devices. The introduction of self-service kiosks in Casablanca has already cut queues by 35%, he noted.

“This is just the beginning. We need to be much more innovative and customer-centric. The customer is the one who chooses an airline – not the other way around!”

Turning to reports about a



CONTINUED FROM PAGE 25

possible investment by Qatar Airways, Addou kept his cards close to his chest. Akbar Al Baker, the Doha-based carrier's chief executive, has repeatedly expressed interest in acquiring 25-49% of Royal Air Maroc if a suitable deal can be reached. The two carriers initiated a joint-venture in 2015, agreeing to codeshare between Casablanca and Doha, as well as on points beyond their respective hubs.

Today the partnership entails Qatar Airways operating the trunk route once daily and Royal Air Maroc three times weekly, rising to five times next summer. The Moroccan flag-carrier already places its code on flights from Doha to Singapore, Bahrain, Kigali and Entebbe, and is targeting codeshares for India and China as soon

Qatar could be one of those airlines, thanks to the good relationship that we have today. But it doesn't go beyond that," he insisted. "Qatar is a very strong ally to us and a very strong friend. So if, one day, we need to think about something, Qatar will be, of course, one on the top of the list.

"But it's too early to discuss about any change in the equity."

The chief executive was more up-front when talking about Royal Air Maroc's appetite for Oneworld membership. Citing its deep African footprint and four-star rating from Skytrax, he said the flag-carrier could become a valuable member of the alliance. "We are in the phase of discussions with them and they have to decide

understandably reluctant to make firm predictions about fleet development.

The flag-carrier's 55-strong fleet today comprises 36 Boeing 737NGs, four 787-8 Dreamliners, four 767-300ERs, one 747-400, four Embraer E190s, five ATR 72-600s (operated by regional subsidiary Royal Air Maroc Express), and one 737-300F. Two additional aircraft – a 747-400 Combi and a 737-BB2 – are operated on behalf of the Government.

When the fifth and final Dreamliner arrives this month, Royal Air Maroc will have just two outstanding orders for ATR 42-600s plus a "small" number of options for 737 MAXs. That may be surprising given the airline's historic pledge to reach 100 aircraft by 2025, but Addou

said all forecasts made by his predecessors are now invalid.

"The idea is not to say we need to be a big airline with 100 aircraft," he insisted. "The idea is to assess the potential of the market and then decide what fleet we will have."

Asked about the planned deployment of the next 787, he said that while "there are some [new] routes that would definitely work with the Dreamliners" the airline's initial focus would be on up-gauging narrow-body services – specifically to Jeddah and Medina. Royal Air Maroc currently deploys its Dreamliners to New York, Washington DC, Montreal, Rio de Janeiro, Sao Paulo, Doha and Paris.

Boeing and Airbus are both in the running for

future orders, Addou confirmed, though he stressed that there is no urgent need to phase out existing aircraft.

Likewise, for the 100-seater category, the chief executive would not be drawn on specific plans, despite previous announcements by the airline forecasting a need for up to 20 regional aircraft. He did, however, reserve kind words for Superjet manufacturer Sukhoi, remarking: "They have a very good product. I have met them twice. They are very positive, very aggressive, and doing a great job. Why not [take Superjets]? It's open.

"It depends on our needs, and what each of them will offer in terms of product, in terms of creativity, in terms of innovation – [the manufacturers must enable us] to address the customers the way we would like to address them."



Abdelhamid Addou: "Qatar is a very strong ally to us and a very strong friend. So if, one day, we need to think about something, Qatar will be, of course, one on the top of the list."

as the relevant bilateral agreements have been amended. Special prorated agreements (SPAs) for Qatar-operated Chinese services are already in place.

"Today we are very happy with the partnership we have with Qatar. We are doing great figures," Addou affirmed. "We need to strengthen this commercial agreement to make it much more positive and bring much more business."

Pressed on whether deeper cooperation could involve an equity sale, he said there were "no other discussions" at present and that the management was not explicitly looking for an investor.

"Again, we are thinking about our new strategy that will be ready next year. One of the tools could be a partnership with an airline, and

whether they will have us," he added, declining to put a timeline on accession. Membership of rival groupings SkyTeam or Star Alliance is no longer being considered.

Localised partnerships are another priority as Addou forges a new path for Royal Air Maroc. Codeshare talks are on-going with Canada's WestJet, Brazil's GOL and Italy's Alitalia, while West African market leaders Asky Airlines and Air Côte d'Ivoire also have "potential" as future partners.

"Any time there is some business and you can bring new things to the customer, we will go for that," the chief executive said, highlighting the success of existing deals with New York-based JetBlue and Abu Dhabi's Etihad Airways.

With the overarching business plan not due to be announced until next year, Addou was



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«RwandAir face à un brillant avenir » – Page 30

RwandAir recently took delivery of its first wide-body aircraft and, as African Aerospace was going to press, more were on the way.

Kaleyesus Bekele looks at the rise and rise of the airline.

Rwanda is rapidly pulling away from the darkest moment in its history – the 1994 genocide when more than one million people perished.

The small country, with a population of just 10 million, today boasts an annual growth of 8% – one of the fastest growing economies in Africa.

President Paul Kagame's administration is transforming the economy with the tourism, aviation and ICT sectors developing quickly.

Since the country is land-locked, the Government has given due attention to air connectivity. It is also nurturing the meetings, incentives, conferences, and exhibitions (MICE) industry by building modern convention centres and first class hotels in Kigali, a small but green and clean city.

Rwanda has simplified its visa requirements and, by doing so, has managed to boost the tourism industry and host major international conferences. The Government has an ambitious plan of making Kigali an aviation and conference tourism hub.

To realise its multi-faceted economic development plans, the Government established RwandAir in 2009. In a continent where new start-up airlines often collapse after few years of operation, the carrier has managed to expand its fleet and destinations.

The airline today operates two Bombardier Q400s, two Bombardier CRJ 900s, two B737-700s, and 2 B737-800s. With its young fleet, it serves 20 domestic and international destinations in Africa and the Middle East.

On September 28 last year, RwandAir took delivery of its first wide-body aircraft – an Airbus A330-200.

The airline was slated to receive the second wide-body, an A330-300, in November 2016 and, the same month, was scheduled to take delivery of a Boeing B737-800. Another Boeing B737-800 is set to arrive in May.

CEO John Mirenge was excited when he arrived at the Airbus delivery centre in Toulouse to receive the first A330-200. It has been named 'Ubumwe', which means unity in the local language in Rwanda. "We chose the name Ubumwe to

Continued
on Page 30



The first A330-200 has been named 'Ubumwe', which means unity in the local language in Rwanda. "We chose the name Ubumwe to show the unity that Rwandese people formed after the civil war," explained John Mirenge.

CONTINUED FROM PAGE 29

show the unity that Rwandese people formed after the civil war,” explained Mirenge.

Powered by Rolls-Royce Trent 700 engines, the A330-200 wide-body has 244 seats – 20 in business-class, 21 premium-economy and 203 in economy.

RwandAir has become the first airline in the east African region to acquire the A330-200 jetliner and is also the first in Africa to introduce premium-economy class.

Airbus has received 41 orders for the A330 from Africa. Mirenge said that, with the acquisition of the new wide-body, RwandAir could compete globally. He added that after acquiring the second A330-300, the carrier would open new long-haul routes to Mumbai (India), Guangzhou (China), London and Paris in Europe. The airline is holding talks with the respective civil aviation and airport authorities.



“With our partner, together we can make this happen,” he said. “We are very excited as an airline and also extremely happy with the professionalism and capability Airbus has shown. The process started a year ago and they have built and handed over to us a beautiful aircraft.”

The CEO pointed out that RwandAir has been growing at a rate of 20% year-on-year in the past six years. He said the airline had been spreading its wings but had limitations with fleet capabilities. “We’ve been a narrow-body and regional operator. We have been spreading our wings to a certain level but there were limitations. Our footprint was limited,” he added.

“With the delivery of this first Airbus, and many others are to come, that limitation will be taken away.

“We will stand and compete with the best in the world because we can reach where they can reach. So it is very exciting.



“We will go to Europe and Asia. We will give different products to all our African region. It is a momentous occasion for RwandAir as we step up to the club of the big boys.”

Speaking of the partnership with Airbus, Mirenge said a journey of a 1,000 miles starts with one step. “We are already talking to our partners for more exciting deals. Sooner or later it will be announced. The relationship is already strong.”

Mirenge said the RwandAir management was already looking at the Airbus A350-900, Airbus’ newest jetliner. “We have a plan to launch flight service to New York with the A350,” he revealed.

RwandAir is a member of the International Air

Transport Association (IATA) and had recently successfully passed that organisation’s operational safety audit for the second time.

Hadi Akoum, Airbus’ vice president in charge of sales for Africa, commended Rwanda’s effort to develop its aviation industry by acquiring new fleet and investing in airport infrastructure. “The acquisition of the new aircraft reaffirms the confidence between Airbus and RwandAir. We will stand side-by-side with the airline to ensure it realises its full potential,” Akoum said.

He added that Airbus would continue assisting the airline in the training of its pilots and engineers.

SOMMAIRE

RWANDAIR FACE À UN BRILLANT AVENIR

RwandAir a récemment pris livraison de son premier avion long-courrier. Kaleyesus Bekele fait la lumière sur les débuts et l’expansion de la compagnie aérienne.

Le Rwanda, avec une population de seulement 10 millions d’habitants, affiche aujourd’hui une croissance annuelle de 8% soit l’une des économies les plus dynamiques en Afrique.

L’administration du président Paul Kagame transforme l’économie avec comme vecteur les secteurs du tourisme, de l’aviation et de l’information et de la technologie. Le gouvernement a misé sur la connectivité aérienne pour désenclaver le pays.

Le Rwanda a simplifié ses procédures en matière de visas et, ce faisant, a réussi à stimuler l’industrie du tourisme et à accueillir de grandes conférences

internationales. Le gouvernement a un plan ambitieux visant à faire de Kigali un hub.

RwandAir a été créée en 2009 dans cette optique. Dans un continent où les nouvelles compagnies aériennes s’effondrent souvent après quelques années, la compagnie a réussi à consolider sa flotte et son réseau. Elle exploite aujourd’hui deux Q400, deux CRJ 900, deux B737-700 et deux B737-800. Elle dessert 20 destinations nationales et internationales en Afrique et au Moyen-Orient.

RwandAir a pris livraison de son premier long-courrier le 28 septembre 2016. Elle devait réceptionner

un A330-300 et un Boeing B737-800 en novembre 2016. Un autre Boeing B737-800 devrait arriver en mai 2017.

RwandAir pourra désormais « concurrencer globalement ». Elle ouvrira ainsi de nouvelles liaisons vers Mumbai, Guangzhou, Londres et Paris. Des pourparlers sont en cours.

John Mirenge, le PDG de la compagnie, a souligné que RwandAir a connu une croissance de 20% d’une année sur l’autre au cours des six dernières années. « Nous avons été un opérateur régional. Nous avons étendu nos ailes à un certain niveau mais il y avait des limites. Nous offrirons des produits différents à toute notre région. C’est une occasion exceptionnelle pour RwandAir car nous entrons dans le club des grands. »

En parlant du partenariat avec Airbus, John Mirenge a déclaré que « la relation est déjà forte ».

La direction de RwandAir souhaite acquérir un A350-900 pour lancer un vol sur New York. RwandAir a



Rwandair's CEO John Mirenge and Jacques Kabale, the Rwandan Ambassador to France, check out the latest delivery.

To increase its operator base in Africa, Airbus has started working with African airlines and governments.

"We are trying to explain to African airlines about the aviation market. Many airlines in Africa operate very old aircraft. If you ask them the reason, they would tell you that new aircraft are costly. But they do not realise the cost of running ageing aircraft – the fuel cost and maintenance costs etc. If they buy new Airbus aircraft they will have cheap operating costs. Operating old aircraft is more costly," Akoum said.

According to Akoum, in the past five years Airbus has been able to attract 23 new operators

in Africa. He said the African aviation market would continue to grow. "There are plenty of opportunities. RwandAir can be a good example. Rwanda is a small country. It is not a rich country. Maybe it is one of the poorest countries in terms of natural resources but it is succeeding. They are confident in their capability to succeed."

Asked why RwandAir selected the A330, Mirenge said that his airline wanted a tested and matured airliner. "The A330 has been in the market for 20 years and it has proven its capability. Many of its components and technologies have been improved over the years," he said.



RwandAir's chief pilot, Captain Marcel Gabou Tirefort, commanded the A330 ferry flight from Toulouse, Blagnac International Airport to Kigali.

The aircraft cruised at an altitude of 41,000 feet with an average speed of 850kmh.

Aboard the flight, Tirefort said the A330 was a perfect machine. "The aircraft is technologically advanced. It is smooth to fly. The organisation and the set-up in the cockpit is very advanced and convenient for pilots. I appreciate the comfort in the cabin. I am really impressed with this aircraft."

The chief pilot said four sets of RwandAir crew had been trained by Airbus in Toulouse. "The training is still going on," he added. "RwandAir has made a milestone. It gives us the opportunity to serve long-haul routes and enables us to give better service to our customers."

The new A330-200 touched down at Kigali

International Airport on September 28 after it flew from Toulouse with a stop over in Entebbe, where the airline has significant passenger traffic.

After visiting the aircraft, Rwanda's Minister of Infrastructure, James Musoni, revealed the Government's plan to build a new modern international airport in Kigali. It will be 50km out of the city with an estimated investment cost of \$600 million.

The airport will initially have one runway and one terminal, with the capacity to handle four million passengers per year. The existing airport accommodates one million passengers.

"By the time we start long-haul flight services, the existing airport will be congested. So we need a new airport that can accommodate our growth," Mirenge explained.

The Government of Rwanda recently built the first drone airport in Africa in the northern part of the country, which enables it to supply medicine and other items to remote areas.

The new aircraft was deployed on the Kigali-Dubai route as of October 2016. The airline used to serve the route with B737 narrow-body aircraft.

As a start-up airline, RwandAir is not yet profitable. Mirenge said the Government of Rwanda is investing in the airline with a long-term vision. "We are building for the future," he said.

RwandAir secured the financing for the two A330s from the eastern and southern Africa PTA Bank. "PTA Bank is our strong partner. This is not the first time that we have done business with it. Back in 2011 it financed our B737 purchase," Mirenge said.

Currently, the airline is in the process of forging a strategic partnership with Ethiopian Airlines.

récemment réussi l'audit de sécurité de l'IATA pour la deuxième fois.

Le ministre rwandais de l'Infrastructure, James Musoni, a révélé le projet du gouvernement de construire un nouvel aéroport international moderne à Kigali. Il sera situé à 50 km de la ville avec un coût d'investissement estimé à 600 millions de dollars. L'aéroport pourra gérer quatre millions de passagers par an soit quatre fois plus qu'actuellement.

Le gouvernement rwandais a récemment construit le premier aéroport de drones en Afrique.

Le gouvernement du Rwanda investit dans RwandAir avec une vision à long terme. « Nous construisons pour le futur. » La compagnie forge actuellement un partenariat stratégique avec Ethiopian Airlines.

British engine manufacturer Rolls-Royce and Brazilian airframer Embraer are combining to supply redundant narrow-body regional airliners, largely from ex-US airlines, to Africa. Geoff Thomas reports.

Why ERJs are rolling up in the African market

Embraer's ERJ145 is powered by two Rolls-Royce AE 3007A engines. There is a growing pool of 50-seat airframes available as the erosion of Scope clauses (deals limiting the number and/or size of aircraft that may be contracted out) and airline consolidation has enabled an upgrading to 70-seater airliners for the USA's regional market.

The vast majority of these smaller regional jets were delivered to the US airlines in the late 1990s and early 2000s under capacity purchase agreements (CPAs). Of the 892 Embraer-made RJs, most were the now-surplus ERJ145s.

Embraer's market manager in Africa and the Middle East, Stefan Hannemann, explained: "Now that African economies are continuing to grow having, according to Global Insight, recorded an average GDP growth rate of 4.2% over the past decade – a figure that's considerably in excess of the global average of 2.4% – the need for an increase in regional air travel is also growing.

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"This economic strength has led to a significant growth of Africa's middle income society as well as an increase in intra-African trade and this, in turn, has meant that African airlines are growing their business significantly by increasing their route networks and fleets. With favourable economic growth forecasts for the decade ahead, airlines are updating their strategies to capture their share of the expected growth in demand for air travel."

Opportunities are, therefore, ample on the African continent, with many new markets yet to be explored and flight frequencies in maturing markets increasing, resulting in the phasing out of older and less economic aircraft types.

An indication of the mismatch of demand and supply is the poor average load factor of African



The Rolls-Royce AE 3007A engine plays a key role in the growth of the ERJ in the African market.

airlines with the International Air Transport Association's (IATA's) latest figures showing only 68%, a percentage that's 12% lower than the global average.

Market analysis conducted from 2015 showed: 83% of all intra-African flights left with fewer than 120 passengers; 39% left with fewer than 60 passengers; and 67% operated less than daily.

All the available analyses clearly outline the urgency for African airlines to focus on choosing the right equipment for their operations, taking into consideration the fact that future market opportunities are likely to be in secondary or even tertiary markets.

Despite offering only a relatively small market size, new opportunities on the African continent are usually high-yielding, providing a better chance of delivering bottom-line profitability.

A sign that airlines are recognising the

importance of serving smaller regional markets – and increasing market share and frequency on trunk routes – is the significant growth of the 37-to-50-seater fleet of Embraer ERJ aircraft on the African continent.

The ERJ regional airliner family has been gaining in popularity in Africa. Competitive operating costs, combined with good range and impressive field performance delivered by state-of-the-art Rolls-Royce engines, has convinced 23 African airlines to phase in the ERJ platform.

One of the key features of the airliner family concept, which incorporates 'same pilot type rating' for all three aircraft (the 37-seater ERJ135, the 44-seater ERJ140 and the 50-seater ERJ145) is 98% spare parts commonality so that maintenance costs can be minimised effectively.

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As of Q4 2016, 58 ERJs are in operation across Africa and the number is expected to increase sharply with more becoming available from North America and Europe at attractive prices. Since first delivery in 1996, more than 1,100 aircraft have been delivered, making ERJs the 'most sold' 50-seater aircraft family in the world.

Rolls-Royce's presence on the African continent is more than 60 years old, featuring on both regional and wide-body aircraft. Indeed, Dart-powered Viscount aircraft entered service from the mid-1950s with Central African Airways and EgyptAir.

Rolls-Royce is strongly represented in Africa, with local offices in Johannesburg, Cairo and Addis Ababa.

Jason Sutcliffe, the company's marketing manager for the Middle East and Africa said: "South African Airlink, the preeminent regional aircraft operator in Africa, has had its ERJ fleet powered by the AE3007 since 2001 and has recently signed a five-year extension to its



South African Airlink has had its ERJ fleet powered by the AE3007 since 2001.

TotalCare agreement, a real testimony to our strong relationship. The deal also included the sale of three spare AE 3007A engines to support the growing fleet.”

Rodger Foster, CEO of South African Airlink, says he is delighted with the new TotalCare extension and is always quick to point out the high level of engine reliability and customer support for Rolls-Royce engines versus the other engine types that South African Airlink operates.

Rolls-Royce puts its success down largely to listening to its customers’ needs, understanding the market needs and a commitment to delivering appropriate service solutions.

Living up to its reputation as an innovator, Rolls-Royce has recently set up a dedicated team to support aircraft transitions, and is working closely with Embraer to support airlines and aircraft owners alike.

Kevin Evans, Rolls-Royce’s VP customers for Africa, said: “We see tremendous opportunities in the fast-moving African market in general and with the AE 3007-powered ERJ family in particular. We are pleased to offer our technical and service expertise locally and are looking at ways to develop our service offerings further to support the growing demand from African airlines.”

With more than 3,200 engines delivered, Rolls-Royce’s AE 3007 engine features a high-efficiency and low-noise fan system. It has racked-up in excess of 50-million flight hours since entering service in 1995.

The engine’s core evolved from the AE 1107 that powers the Bell Boeing V-22 Osprey tiltrotor military aircraft as well as Northrop-Grumman’s Global Hawk and Lockheed Martin’s C130J transport aircraft. It sits in the 8,000lb thrust class, with versions also powering Embraer’s Legacy 600/650 corporate jets and Cessna’s New Citation X.



With a high-bypass ratio of 5:1, the two-spool engine features axial-flow with a wide-chord single-stage direct drive fan; 14-stage axial flow compressor with inlet guide vanes’ and five variable geometry stator stages. The full annular combustion chambers have 16 fuel nozzles and two high-tension igniters driving the HP compressor. The three-stage LP turbine drives the fan, while the engines are controlled by two full-redundant full authority digital engine controls (FADECs).

Thanks to its advanced technology, the engine has also demonstrated a remarkable 99.98% dispatch reliability.

Sutcliffe added: “The most recent influx of ERJs has gone to South African’s highly profitable South African Airlink subsidiary, which is growing its existing fleet of 19 ERJ135s by adding 11 ERJ140s over the next year. During 2016, ERJs have also joined the fleets of Group Transair in Senegal, Westair in Namibia,

as well as Cronos Airline in Equatorial Guinea. We continue to see prolific growth in fleet size with other operators, such as Fly Blue Crane, Solenta Aviation in South Africa, and Mozambique Expresso, to name a few.

“Of all ERJs delivered to Africa so far, five have been new, while most came from North America (24) and Europe (23), with three coming from China.”

Airlines see the aircraft as a true workhorse, being able to operate multiple daily cycles in the sometimes harsh African operating environment, while achieving a schedule reliability level of 99.52% over the past year, according to Embraer’s technical team.

One of the main drivers behind the outstanding technical reliability levels is Embraer’s commitment to providing world-class customer support locally in Africa, as well as the strong support for the engines by Rolls-Royce.

Having a local presence in the regions is essential for on-going support and Embraer has representation ‘on the ground’ in five African countries, with a main office in Johannesburg, and there are plans to grow further in the short-term.

Multiple service centres are also present, offering tailored solutions to African ERJ operators. There is also a full flight simulator (FFS) in Johannesburg, along with a major parts distribution centre for the entire ERJ family.

Awakening of the

After a false start in 2015, Air Djibouti is now spreading its wings under the watchful eye of support specialists Cardiff Aviation. Martin Rivers talks to Ian Patrick, the flag-carrier's commercial director.

More than a decade after its previous incarnation was liquidated, Air Djibouti is back in the skies with one Boeing 737-400 and one BAe 146 wet-leased from VVB Aviation Malta and South Africa's Fair Aviation respectively.

Another BAe 146 is due to arrive in February, while a 767-200ER, owned by the Djibouti Government, has been lined up for long-haul flights.

The flag-carrier was resurrected in August 2015 with a Fokker 27 freighter wet-leased from Kenya's Astral Aviation, but promptly returned the turboprop after a series of maintenance issues.

Air Djibouti relies wholly on wet leasing due to restrictions placed on the Horn of Africa nation by the International Civil Aviation Organisation (ICAO), which deems the Djiboutian Civil Aviation Authority unfit to oversee operations. The full spectrum of the airline's managerial, operational and technical activities has been contracted out to Cardiff Aviation, the support specialist founded by Iron Maiden singer Bruce Dickinson.

Although chairman Aboubaker Omar Hadi

has disclosed a long-term vision of deploying 15 aircraft, commercial director Ian Patrick is taking things one step at a time during the start-up's early days.

"I have to focus on the short-term at the moment. Once we are stable and operating well, then I will put in place a total commercial plan for 10 years," he said. "We will have plans to expand in the future, but we're going to establish ourselves regionally first."

The 737 began serving Ethiopia's capital, Addis Ababa, in August, followed two months later by BAe flights to Hargeisa and Berbera in Somaliland, the autonomous north-western province of Somalia. Patrick said the Hargeisa route is performing "incredibly well" despite competition from local rival Daallo Airlines.

Route-proving flights were also conducted to Somalia's capital, Mogadishu, and the Puntland city of Bosaso in November, but at the time of writing no firm decision had been taken about launch dates. Although he said Mogadishu will "almost certainly be our biggest market", Patrick is waiting for the completion of security

assessments by both the Djiboutian authorities and Lance Black, the airline's in-house security manager.

Concerns about air safety in Somalia have intensified since the bombing of Daallo Flight 159 in February 2016, which mercifully killed only the assailant. Mogadishu's Aden Adde International Airport has also repeatedly been targeted in ground attacks by Al Shabaab, the Islamist terrorist group affiliated to Al Qaeda.

"We're waiting on the assessments and then we'll set a launch date once we get the all clear," Patrick affirmed.

"[When that happens] we will increase frequencies and expand the network to do more criss-crossing of Somalia, Somaliland and back. The aircraft would go Djibouti-Bosaso-Mogadishu-Djibouti. And then the next day it would fly straight into Mogadishu and come back via Bosaso. We'd have the same linking [to Djibouti] for Hargeisa and for Berbera. And link Berbera-Hargeisa-Bosaso as well."

Fifth-freedom flights stretching from Mogadishu to Nairobi, Kenya's capital, are another possibility.

SOMMAIRE

AIR DJIBOUTI RESSUSCITÉE

Air Djibouti est de retour dans le ciel avec un Boeing 737-400 et un BAe 146 loué en « wet-lease » de VVB Aviation et Fair Aviation.

Un autre BAe 146 devrait rejoindre la flotte en février, alors qu'un B767-200ER, appartenant au gouvernement, a été affecté sur des vols long-courriers.

Air Djibouti dépend entièrement du wet-leasing en raison des restrictions imposées au pays par l'OACI, qui estime que l'aviation civile djiboutienne est inapte à surveiller les opérations. Toutes les activités opérationnelles, techniques et de gestion de la compagnie aérienne ont été confiées à Cardiff Aviation fondée par le chanteur du groupe Iron Maiden, Bruce Dickinson.

Bien que son président Aboubaker Omar Hadi ait révélé sa vision à long terme avec le déploiement de 15 avions, le directeur commercial Ian Patrick a choisi de procéder étape par étape pendant le démarrage.

« Nous aurons des projets d'expansion à l'avenir mais nous allons d'abord consolider nos assises au niveau régional. »

Le B737 dessert Addis-Abeba depuis août. Le BAe 146 vole vers Hargeisa et Berbera en Somaliland, province autonome du nord-ouest de la Somalie. Selon Ian Patrick la route de Hargeisa fonctionne « incroyablement bien » malgré la concurrence venant de Daallo Airlines.

Des vols d'essais ont également été effectués en novembre vers Mogadiscio et Bosaso. Même si Mogadiscio sera « presque certainement notre plus

grand marché », Ian Patrick attend la fin des évaluations de sécurité par les autorités djiboutiennes et Lance Black, le responsable de la sécurité de la compagnie aérienne avant de fixer une date de lancement.

Les inquiétudes concernant la sécurité aérienne en Somalie se sont intensifiées depuis l'attentat du vol 159 de Daallo en février 2016.

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L'axe Mogadiscio-Nairobi est une autre possibilité. La ville éthiopienne de Dire Dawa devait rejoindre le réseau au moment où African Aerospace allait sous presse alors que les négociations se poursuivent sur l'ajout de Dubaï aux Emirats Arabes Unis et de Jeddah en Arabie Saoudite.

La connectivité européenne est également ciblée avec la route Londres-Paris-Djibouti.

Alors qu'il est optimiste quant aux perspectives des services aux passagers, Ian Patrick, s'attend à ce que le fret devienne l'épine dorsale de la compagnie dans les années à venir surtout avec l'ouverture du nouveau terminal cargo à l'aéroport international Djibouti-Ambouli.

Le gouvernement djiboutien s'est engagé à développer un hub combiné de fret maritime et aérien dans le pays, exploitant son positionnement par rapport à la voie maritime Bab al-Mandab qui relie la mer Rouge au golfe d'Aden.

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But Kenyan restrictions that force inbound flights from Somalia to make an additional security stop in the northern town of Wajir pose a problem. "If you look at the crew hours, that extra stop really does make it difficult [to justify the route]," Patrick said. He voiced optimism that the Kenyan Government would change its policy soon.

Elsewhere, the Ethiopian city of Dire Dawa should have joined the network by the time *African Aerospace* goes to press, while negotiations continue over the addition of Dubaï in the UAE and Jeddah in Saudi Arabia.

European connectivity is also being targeted in the form of the London-Paris-Djibouti route that Astraevs Airlines – a precursor to Cardiff Aviation – had operated for Daallo with a 757 during the last decade.

A 767-200ER, owned by the Djibouti Government (MSN 23624), is currently parked at St Athan airfield in South Wales, awaiting re-designation under Cardiff Aviation's AOC before being based at London Gatwick Airport for the long-haul route – potentially as soon as this month.

"What we did years ago for Daallo Air was very successful and very popular," said Tony Layfield, Air Djibouti's chief pilot. "With a 767, it's got even more potential. The 757 struggled

sleeping Djibouti



Air Djibouti's first aircraft - a Boeing 737 - arrived in Djibouti from Cardiff.

with the range, particularly in the winter against the jet stream.”

Members of the Somali diaspora, who travel back to their homeland via Djibouti, currently have just two options from Europe: Air France and Turkish Airlines. Somalia, itself, does not have any non-stop links to the continent.

While he is upbeat about the prospects for passenger services, Patrick, nonetheless, expects freight to be the backbone of the flag-carrier in future years. The Djibouti Government has pledged to develop a combined sea and air freight hub in the country, exploiting its location by the Bab al-Mandab shipping lane that links the Red Sea with the Gulf of Aden.

“At the end of the day it’s freight that is going to be important,” he insisted, adding that 737Fs or BAe 146Fs will be inducted once the new cargo terminal opens at Djibouti-Ambouli International Airport. “The entire concept of sea-air cargo is what is going to drive the airline... getting the freight to the landlocked countries – that is incredibly important for us.”



EAST AFRICAN AIR FREIGHT SOLUTIONS

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- Nairobi - Mwanza (Tanzania)
- Nairobi - Zanzibar (Tanzania)
- Nairobi - Moroni (Comoros)
- Nairobi - Mogadishu (Somalia)
- Nairobi - Kigali (Rwanda)
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*As political uncertainty grips the Democratic Republic of the Congo (DRC), Transport Minister Justin Kalumba Mwana Ngongo talks to **Martin Rivers and Vincent Chappard** about the need to press on with critical aviation projects in the country.*

CONGO AIRWAYS FLIES INTO POLITICAL STORM

By the time *African Aerospace* goes to press, it should be clear whether Joseph Kabila, the President of the Democratic Republic of the Congo (DRC), has clung on to power beyond the expiration of his mandate on December 19 2016.

The postponement of elections until April 2018 has created a political crisis in the country, with Kabila insisting – to the dismay of his opponents – that he should stay in charge until polling day. Repeated hints that DRC’s constitution may be rewritten to permit a third term in office are further inflaming the situation.

What all this means for Congo Airways, the country’s resurrected flag-carrier, is impossible to know. The airline has made impressive strides since its October 2015 launch, tackling DRC’s poor air-safety record with \$100 million start-up capital from the government and support from Air France Consulting.

Justin Kalumba Mwana Ngongo, Minister for Transport and Communication in Kabila’s administration, is the man who turned the French-developed business plan into reality.

Speaking during the 39th Assembly of the International Civil Aviation Organisation (ICAO), he stressed that the path ahead for Congo Airways is clear – irrespective of political turbulence. The flag-carrier was conceived as a catalyst for change in DRC, raising standards and incentivising safety compliance in what remains the deadliest aviation market on the continent.

“We are adopting the appropriate mind-set, whereby we are obliged to implement all the ICAO recommendations by setting up our national airline,” he explained. “We will support Congo Airways to set the standards and best practices throughout the country. We are geared to making it one of the best companies in Africa.”

The minister praised the UN agency for launching a “holistic project” aimed at “pulling us up” to global standards. A new management team has already been installed at the Civil Aviation Authority, he noted, which will soon become a financially autonomous body in accordance with international norms.

“The situation was critical, especially as of



2006, when we had the ICAO audit. We had a compliance level of about 11% only concerning our supervisory capacity for aviation safety,” Ngongo recalled.

“In view of this, corrective action plans have been designed and implemented. I must admit that it was difficult, as the financial support was not consistent at all. Consequently, we reached a compliance rate of 26% in 2013. So we had progressed, but not very significantly. We, therefore, strived doubly hard. Now we believe that we are nearing the 50% compliance rate for the implementation of practices recommended by ICAO. We remain convinced that we will reach a 60% compliance rate by the end of 2017.”

Asked about the planned sale of a 20-25% stake in the flag-carrier to private investors, Ngongo disclosed that meetings with financial advisors had taken place in Geneva in late September. Several parties from “around the world” have voiced interest in the privatisation, he confirmed, including Ethiopian Airlines, the Addis Ababa-based flag-carrier, which already has minority stakes in Togo’s Asky Airlines and Malawian Airlines.

“In three years, I’ve received six letters from Ethiopian Airlines,” the minister noted. “Ethiopian Airlines is now a benchmark in Africa, the number one in Africa. It is managed with the highest standards and has been showing profits for many years. But we’re exploring options before beginning practical and technical discussions.”

He added that Congo Airways was purposefully launched with 100% domestic

capital, in order to make all DRC stakeholders “conscious that we have to face this challenge as a nation”.

Last summer, Jerome Maillet, the flag-carrier’s deputy chief executive, said plans were afoot to grow the fleet to 10 narrow-body aircraft by the end of the decade – up from two Airbus A320s and two Bombardier Dash 8 Q400s. The new aircraft would facilitate regional route launches by the airline, which presently only serves domestic points.

Parallel discussions about the acquisition of two wide-bodies for long-haul flights are also under way.

Though political discord has provided an unwelcome distraction, Ngongo said Congo Airways is now on the verge of signing an order for “five more planes”. Airbus is considered the front-runner, given the existing make-up of the airline’s fleet.

DRC’s recent ratification of the Cape Town Convention – an international treaty governing rules for movable property – has also reassured bankers about placing assets in the country, opening the door to finance leases. Congo Airways has until now relied on direct acquisitions, which Maillet admitted “is not the most optimal [way] to leverage a return on equity”.

First, however, the Democratic Republic of the Congo’s political situation must be peacefully resolved. Failure to do so could jeopardise future growth and prosperity across all sectors, including civil aviation.

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CONGO AIRWAYS VOLE DANS UNE TEMPÊTE POLITIQUE

Alors que l'incertitude politique frappe la République démocratique du Congo (RDC), le ministre des Transports, Justin Kalumba Mwana Ngongo, parle à Martin Rivers et à Vincent Chappard de la nécessité de poursuivre les projets d'aviation essentiels dans le pays.

Au moment où African Aerospace sera sous presse, il devrait être clair si Joseph Kabila, le président de la RDC, s'accrocherait au pouvoir après l'expiration de son mandat le 19 décembre 2016.

Le report des élections jusqu'en avril 2018 a créé une crise politique dans le pays, avec Kabila insistant - à la consternation de ses adversaires - qu'il devrait rester en poste jusqu'au jour du scrutin.

Il est impossible de prévoir ce qu'il adviendra à Congo Airways. La compagnie a réalisé des progrès impressionnants depuis son lancement en octobre 2015, s'attaquant à l'épineux dossier de la sûreté aérienne avec un capital de émanant du gouvernement de 100 millions de dollars et du soutien d'Air France Consulting.

Justin Kalumba Mwana Ngongo est l'homme ayant mis en pratique le plan de développement conçu par les Français.

S'exprimant à l'occasion de la 39^{ème} assemblée de l'OACI, il a souligné que la voie que Congo Airways doit suivre, est claire - indépendamment des turbulences politiques. La compagnie avait été mise sur pied comme un catalyseur de changement dans le pays et pour rehausser les normes surtout en matière de sûreté. « Nous adoptons une démarche qui nous oblige à mettre en œuvre toutes les recommandations de l'OACI. Nous aiderons Congo Airways à établir les normes et les meilleures pratiques à travers le pays... Notre objectif est qu'elle devienne une des meilleures compagnies en Afrique. »

□ □ □ □ □

Le ministre a loué l'agence des Nations Unies pour le lancement d'un «projet holistique» visant à tirer la compagnie « vers le haut » par rapport aux normes mondiales.

Pour rappel, en 2006, le niveau de conformité en matière de capacité de surveillance de la sûreté aérienne était d'environ 11%. Des mesures correctives furent prises. « Par conséquent, nous avons atteint un taux de conformité de 26% en 2013. [...] Nous nous approchons du taux de conformité de 50% pour la mise en œuvre des pratiques recommandées par l'OACI. Nous restons convaincus que nous atteindrons un taux de 60% d'ici la fin de 2017. »

Interrogé sur une participation à hauteur de 20-25% d'investisseurs privés dans la compagnie, Justin Kalumba Mwana Ngongo a révélé que des réunions avec des conseillers financiers avaient eu lieu à Genève fin septembre 2016. Il y a eu plusieurs propositions venant « de toutes les régions du monde » concernant le projet de privatisation, y compris d'Ethiopian Airlines, qui détient déjà des participations minoritaires dans ASKY Airlines et Malavian Airlines.

« En trois ans, j'ai reçu six lettres d'Ethiopian Airlines », a souligné le ministre. « Ethiopian Airlines est maintenant une référence en Afrique, le numéro un en Afrique... Mais nous explorons les options avant de commencer des discussions pratiques et techniques. »

L'été dernier, Jérôme Maillet, le directeur général adjoint de la compagnie, a déclaré à African Aerospace que la flotte allait croître à dix avions monocouloirs d'ici la fin de la décennie avec deux Airbus A320 et deux Bombardier Q400. Ceci va faciliter les liaisons régionales. Des discussions parallèles sur l'acquisition de deux gros porteurs pour les vols long-courriers sont également en cours.

Justin Kalumba Mwana Ngongo a aussi déclaré que Congo Airways était sur le point de signer une commande pour « cinq avions de plus ».

La ratification récente par la RDC de la Convention de Cape Town a également rassuré les banquiers. Le pays a toutefois besoin d'une transition pacifique pour une croissance pérenne dans tous les secteurs.

Justin Kalumba Mwana Ngongo:
"We will support Congo Airways to set the standards and best practices throughout the country. We are geared to making it one of the best companies in Africa."

Air France-KLM has lengthy historical ties with Africa and today boasts one of the strongest networks to the continent.

Victoria Moores caught up with Air France-KLM SVP Africa Frank Legré to learn about the group's expansion plans.

African love story continues to grow

Air France has a long story – and at the same time a love story – with Africa, according to Air France-KLM SVP Africa Frank Legré. “Even at the creation of Air France, we were already flying to Africa.”

Air France was created in 1933 from the combination of a series of smaller airlines and, much later, it merged with west African specialist Union de Transports Aériens (UTA), cementing its ties with the continent.

The Air France-KLM executive has overseen other geographical patches but, over the last three years since he took up his current role, he has seen a huge amount of potential. “One of the things that we are most happy with is the quality of our network. We are specialists in Africa. There are many more opportunities in Africa than in other continents. There is a lot more to be done, but it's not always easy,” he said.

And things were certainly not easy in 2016. Countries like Angola, Congo, Nigeria and Tanzania were badly hit by softening oil and commodity prices, making it hard to repatriate funds. Legré said this has been a “huge issue”, as the resource business is a lifeline for these countries, but the group is confident in Africa's future and wants to invest more.

One of the ways Air France-KLM is achieving this is through its partnerships with Air Cote d'Ivoire and Kenya Airways. Air France holds a 20% stake in Air Cote d'Ivoire and has been very involved in the airline's development. At the moment, the airlines have a pro-rata agreement, but Legré believes this will ultimately be expanded to a codeshare.

Ivory Coast is important to the group's African strategy because it is a regional hub and the country is “booming,” posting 10% growth in 2015.

The country ranks as the fastest-growing economy in Africa and has been named as the top destination for investment in west Africa. There are also major businesses based in Ivory Coast, including the International Cocoa Organization (ICCO).

This means Air France is keen to maintain a “significant share” of Air Cote d'Ivoire, although it will never dominate its partner's business. “We are not there to dictate what they do. We want a partnership with no political tension. There are so few reliable carriers and that makes it important to support these regional airlines. It is difficult for them to break even with just four or five aircraft.”



Air France's relationship with the Ivory Coast dates back to before Air Cote d'Ivoire was born. Air Afrique – the original pan-African airline – was headquartered in Abidjan and Air France was a shareholder. “We are committed by the past to the Ivory Coast,” Legré said.

Kenya Airways is another important strategic relationship, with KLM holding a 27% stake in the Kenyan airline. Kenya Airways and KLM also operate a joint venture on flights between eastern Africa and western Africa, plus the three carriers – Air France, KLM and Kenya Airways – are SkyTeam alliance partners.



Beyond this, Air France also holds a very small share in Tunisair, of around 1%. “This is something that comes from the past and shows the Tunisians that we are still partnering with them. It is symbolic.”

While Air France-KLM's main focus is long-haul flights to Africa, Legré believes that there is scope to improve general infrastructure by boosting regional connectivity and the group is open to forming new cooperations. “There are lots of people talking to us who I can't mention,” he said. “We are looking at any opportunities in Africa and will pursue anything that makes sense.”

In theory, plenty of African opportunities could be about to open up with intra-African open skies finally expected to happen in early 2017, followed soon after by the introduction of a pan-African passport. However, Legré is not expecting a “big bang” effect from liberalisation, as some countries are already fairly open. “It is more a political issue than a legal framework,” he said. “Let's see.”

Within its own operations, Air France-KLM is working to optimise its African strategy and operations across the group. For example, Air

SOMMAIRE

LE SECRET D'UNE HISTOIRE D'AMOUR AFRICAINE

Air France KLM a des liens de longue date avec l'Afrique. Victoria Moores fait le point avec son directeur Afrique, Frank Legré, sur les perspectives de croissance du groupe.

Air France a été créée en 1933 à partir d'une fusion de petites compagnies aériennes et plus tard, elle a fusionné avec l'Union Africaine des Transports Aériens, consolidant ses liens avec le continent.

Selon Frank Legré, Air France a une longue histoire d'amour avec l'Afrique. « Ce qui nous procure le plus de joie, c'est la qualité de notre réseau. Nous connaissons très bien l'Afrique. Il y a beaucoup plus d'opportunités en Afrique que sur d'autres continents. Il y a beaucoup plus à faire, mais ce n'est pas toujours facile. »

La situation est complexe dans des pays comme l'Angola, le Congo, le Nigéria et la Tanzanie. Ces pays ont été durement frappés par la baisse des prix du pétrole et le manque de liquidités.

Air France-KLM possède de nombreux partenariats en Afrique. Le groupe détient une participation de 20% dans Air Côte d'Ivoire et a été très impliqué lors de son développement. « Nous ne sommes pas là pour dicter ce qu'ils font. Nous voulons un partenariat sans tension politique. Il est important de soutenir ces compagnies aériennes régionales. » La Côte d'Ivoire est importante pour la stratégie africaine d'Air France-KLM. Le pays est en plein essor et a affiché une croissance de 10% en 2015.

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Kenya Airways est un autre partenariat stratégique. KLM détient une participation de 27% dans le capital de la compagnie aérienne kenyane. Kenya Airways et KLM exploitent (via une JV) des vols entre l'Afrique de l'Est et l'Afrique de l'Ouest. Air France, KLM et Kenya Airways sont également des partenaires de l'alliance SkyTeam.

Frank Legré estime qu'il est possible de renforcer la connectivité régionale et le groupe est ouvert à la formation de nouvelles coopérations.

En 2017, il y aura beaucoup d'opportunités en Afrique en particulier avec l'ouverture du ciel intra-africain et la mise en place d'un passeport panafricain. Cependant, Frank Legré ne s'attend pas à un grand chamboulement.

Air France-KLM s'efforce d'optimiser sa stratégie et ses opérations en Afrique. Air France lancera ses opérations à Accra (Ghana) en 2017, même si KLM dessert déjà cette destination. La compagnie a également ajouté Oran à son réseau. KLM a récemment lancé une ligne vers Windhoek (Namibie). En mars 2017, KLM ouvrira également une route Amsterdam-Freetown (Sierra Leone) et à Monrovia (Libéria). Air France-KLM déploie également ses avions les plus récents sur le continent y compris les Airbus A380 et les Boeing 787.

Cela démontre l'engagement du groupe envers l'Afrique.



“We offer the best of Air France-KLM and adjust it as much as we can to African tastes.”

FRANK LEGRÉ

France will begin flying to Accra in Ghana in 2017, even though KLM already serves the city. “If there is enough space, we will both fly there. Where we need both, we will fly dual hub to that destination.”

Meanwhile, KLM recently opened services to Windhoek (Namibia), while Air France has added Oran (Algeria). KLM will also open a route from Amsterdam to Freetown (Sierra Leone) and Monrovia (Liberia) in March, taking the Dutch carrier to 13 destinations in Africa next year

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In winter 2016-17, the group – including Transavia – will serve 48 African destinations, which Legré claims is unrivalled in the industry. This is supported by more than 23 codeshare routes across the group this winter, operated by partners including Kenya Airways and South African low-cost carrier Kulula.

As a sign of Air France-KLM's commitment to Africa, the group is deploying its most recent aircraft to the continent, including Airbus A380s and Boeing 787s. When Air France's new cabin

design was unveiled, it was displayed in Libreville in Gabon, alongside New York, Paris and Shanghai.

“This shows the importance of Africa,” Legré said. “We don't use a specific fleet. We consider Africa to be part of the world and do not offer any less comfort on these routes. We also try to find small details and offer local choices that you will only find on our African flights. We offer the best of Air France-KLM and adjust it as much as we can to African tastes.”

The group offers specialised food, drink and in-flight entertainment on its African routes, including premieres of Nollywood films originating from Nigeria. It also has dedicated ambassadors on specific routes who are trained in African culture. “They are trained to be closer to the African spirit and they explain what the expectations are to the rest of the crew. Africans are warm, respectful and generous. These are their key values.”

So what is the attraction of Africa to Legré? “What I like very much about Africa is that relationships with people make a real difference, much more than in other countries. It calls for personal involvement,” he said.

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The two Nigerian Air Force ATR42MPs, which can be armed with a light gun, are the most capable maritime patrol aircraft in Africa. They are based at Port Harcourt.

PICTURE: LEONARDO.



Maritime surveillance: Is it all at sea?

«Une surveillance maritime titanesque » – Page 42

Alan Warnes *takes a look at the maritime surveillance situation in Africa and finds it to be somewhat patchy.*

The United Nations says that maritime zones under Africa's jurisdiction total about 13 million square kilometres, including territorial seas, and approximately 6.5 million square kilometres of the continental shelf.

Two thirds of the equivalent area of Africa's landmass lies under the sea.

Of the 54 African states, 38 have coastlines. Their territorial waters usually stretch out 12 miles (19kms) from their coast. In Africa, that affects the Indian Ocean, Mediterranean Sea, the Red Sea and the Atlantic.

However, few states have any assets to patrol what is rightfully their territory.

Each country also has a 200mile (322km) economic exclusion zone (EEZ), allowing them special rights regarding the exploration and use of marine resources, including energy production from water and wind. However, again, it seems that many rarely bother, despite the serious threats posed by pirates, terrorists, illegal fishing and smugglers.

The downside to maritime surveillance is, of course, the cost. Not many countries can afford the capital outlay or the running of an aircraft,

related equipment and a mission centre. Regional cooperation could be a way forward but, in truth, there isn't much of that either.

So who cares?

■ NIGERIA

Nigeria is doing more than most to quell its maritime issues, which is not surprising given the massive problems it endures along its 500mile (800kms) coastline.

In June 2016, the Nigerian Navy finally began operating the Falcon Eye mass surveillance system for operations across the Gulf of Guinea. Designed in Israel, but built by United Arab Emirates (UAE)-based Falcon Technologies, the system is already operational in the desert kingdom.

The company also manufactures unmanned aerial vehicles (UAVs), which could be used in Falcon Eye.

Falcon Eye's six electro-optical stations monitor aircraft, vessels and offshore oil infrastructure. In September 2015, the Nigerian Navy's Rear Admiral Henry Babalola stated that his country and the entire Gulf of Guinea faced huge security problems that could be solved if the regional

Of
the 54
African states,
38 have
coastlines.

Continued
on Page 42

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maritime awareness capability (RMAC) was complemented with the Falcon Eye surveillance project. The navy has admitted that there are “blind arcs” experienced with the RMAC in some parts of the country’s territorial waters.

Through its integral radar, camera and automatic identification system (AIS), the RMAC provides round-the-clock surveillance of the maritime environment up to 35 nautical miles from the coast.

Two Nigerian Air Force ATR42MP Surveyors, purchased in late-2009/10 for the maritime patrol role, plug into the new system.

At the heart of arguably the most modern maritime patrol aircraft (MPA) in Africa is the Selex ES (now Leonardo) airborne tactical observation and surveillance (ATOS) system with the impressive Sea Spray 7000E active electronically scanned array (AESA) multi-mode surveillance radar being the jewel of the aircraft’s crown.

The Surveyors are also equipped with flight-operable doors to drop emergency kits, plus large observation windows and fuselage pylons to carry a night searchlight or other equipment. Both flew to Edinburgh, Scotland in 2013, apparently so their systems could be upgraded for overland operations.

With such a vast radar range, some say 115 miles (185kms), both aircraft could search,

track or locate any ship or vessel in Nigeria’s territorial waters within 15 minutes of departure from their base at Port Harcourt.

The Falcon Eye system appears to have taken over the previous operation run by the presidential ministerial committee on maritime security (PICOMSS), which was dissolved in 2012. The agency had been set up to protect Nigeria’s maritime domain and oil and gas installations. It had installed surveillance radars along Nigeria’s coast and is said to have had unmanned aerial vehicles (UAVs) in its inventory, as well as several DA42MPPs.

In addition to Nigeria’s military shore-based surveillance systems, the Nigerian Maritime Administration and Safety Agency (NIMASA) said in late 2015 that it was considering the acquisition of drone aircraft for maritime domain awareness purposes.

■ SOUTH AFRICA

For a country with a 2,500mile (4,000km) coastline, South Africa has little maritime surveillance capability.

An example of its airborne technological prowess is its reliance on five C-47TPs – of which four are more than 70 years old! They are operated by the South African Air Force (SAAF) 35 Squadron at Air Force Base Ysterplaat, to provide any airborne maritime surveillance

requirements – with no electro optical/infrared (EO/IR) sensors.

Basically, the navy will detect a contact and scramble the Dakotas to the target. There are examples of operators on board detecting submarines simply by using their radar to track the snorkel when it rises.

It is now the only option as the SAAF lost the sonobuoy capability when the Shackleton was retired in 1984.

For several years now, the SAAF has assembled teams to find a solution, but they always tend to fail because of funding issues. Several companies have been to South Africa marketing their solutions, some several times. Among them are Bombardier/Field (Dash 8 Q400), Lockheed Martin (SC-130J), RUAG (Do 228) and Saab (Saab 340 MSA). Other options could include the Viking Twin Otter, CN-235MP and ATR-42/72MP, offering a myriad of differing sensor solutions.

■ GHANA

In 2011, the Ghana Government, fed up with poachers and illegal fishing by foreign trawlers and ships, did something about its problems.

In a £9 million (\$11.2 million) deal, the UK-based DO Systems was contracted to provide a turn-key maritime reconnaissance system, which led to the Ghana Air Force acquiring two DA42 multi-purpose surveillance aircraft, one training DA42, a flight simulator and a full mission command centre. The aircraft are equipped with forward-looking infrared (FLIR), cameras and other sensors.

The DA42s are operated by 1 Squadron at Sekondi-Takoradi, and, as well as the surveillance of offshore oil production platforms and border patrol, they monitor the country’s EEZ.

Ghana’s government records indicate that 90% of all fish currently caught in the ocean are harvested well within its EEZ, while more than 80% of the world’s known and estimated hydrocarbon reserves are in the same zone.

DO Systems taught the sensor operators in the UK, while Diamond trained six pilots and six engineers in Austria before the aircraft were delivered in late-2011.

The DA42s works in tandem with a mission control centre by data-linking imagery from the aircraft’s EO/IR sensors. Use of satellite and microwave transmissions allows the government to see live imagery from anywhere in Ghanaian waters or borders. Images are also relayed via the internet, securely, to allow mobile devices such as iPad and iPhone to view the imagery live.

■ NORTH AFRICA

Along the northern African coastline, Morocco is searching for a new maritime surveillance aircraft to replace the Gendarmerie’s old fleet of around 16 BN-2T Defenders. They are used to protect the country’s EEZ and are also likely to be on the look-out for ships smuggling arms to

SOMMAIRE

UNE SURVEILLANCE MARITIME TITANESQUE

Alan Warnes fait un état des lieux de la surveillance maritime en Afrique.

Selon les Nations Unies, les zones maritimes tombant sous la juridiction de l’Afrique totalisent environ 13 millions de kilomètres carrés. Sur les 54 États qui composent l’Afrique, 38 ont des côtes maritimes.

Peu d’États disposent de capacités pour les patrouilles.

Chaque pays dispose également d’une ZEE, ce qui confère des droits d’exploration et d’utilisation des ressources marines.

Beaucoup de pays s’en préoccupent peu malgré de nombreuses menaces.

La surveillance maritime reste très coûteuse et génère des dépenses opérationnelles. La coopération régionale pourrait donc faciliter la surveillance.

■ LE NIGÉRIA

Le Nigéria fait beaucoup d’efforts pour solutionner ses problèmes.

En juin 2016, la marine nigériane a commencé l’utilisation du système de surveillance « Falcon Eye » à travers le golfe de Guinée. Il est déjà opérationnel aux Emirats Arabes Unis.

■ AFRIQUE DU SUD

Le pays a peu de capacités en matière de surveillance maritime. Il dispose de cinq avions C-47TP opérés par la SAAF.

■ GHANA

Minées par les braconniers et la pêche illégale, les autorités ghanéennes ont signé en 2011 un contrat avec DO Systems pour un système de reconnaissance clé en main. La Force aérienne du Ghana dispose désormais de deux avions DA42, d’un simulateur de vol et d’un centre de commandement.

■ AFRIQUE DU NORD

Le Maroc est à la recherche d’avions de surveillance maritime pour remplacer sa flotte de 16 BN-2T. L’Algérie exploite deux hélicoptères Beech 350ER. La Libye a acquis un ATR 42MP pour des missions de surveillance et de sauvetage en 2008. Cet avion a cependant été endommagé en 2011.

■ LES SEYCHELLES

Les Seychelles étaient autrefois au cœur de la lutte contre la piraterie. La Force aérienne des Seychelles continue à remplir ses missions avec un Do 228 MSA acheté à HAL.

■ LA SOMALIE

L’effort anti-piratage au large de la Corne de l’Afrique a vu une forte augmentation des avions de patrouille maritime en Somalie. Ils étaient basés, pour la plupart, à Djibouti dans le cadre de la NAVFOR ou du CTF 151.



Above: A large number of Britten-Norman BN-2T Defenders continue to be used in the maritime surveillance mission by Morocco's Gendarmerie, although a replacement is currently being sought.

Right: The Ghana Air Force acquired two Da42M-NGs in late 2011 as part of a turnkey maritime surveillance system contract with UK-based DO Systems.

PICTURES: ALAN WARNES



the Sahrawi rebels (Polisario) in south Sahara.

Neighbouring Algeria operates a pair of Beech 350ER aircraft, acquired in July/August 2010. By mid-2012 one of had been modified for the maritime surveillance role by French company BCA (Business and Commuter Aircraft), with the installation of a Selex Galileo (now Leonardo) Gabbiano radar/ATOS system.

The integrated nature of the system allows a single operator to manage and operate the radar, automatic identification system (AIS) and EO sensor using the same tactical interface.

On March 14, 2013, Selex ES announced it had delivered an ATOS-equipped Beech 350ER platform to an undisclosed customer for use in the MPA role.

Libya acquired a single ATR42MP for the Interior Ministry's General Security Agency for search and rescue and maritime tasks in 2008, but the aircraft was damaged during the 2011 Libyan war and is believed to lay derelict somewhere.

■ THE SEYCHELLES

The Seychelles was once at the centre of the anti-piracy effort and used to detain those captured in the Indian Ocean by the EU/NATO/US until they were extradited.

The Seychelles Air Force continues to fulfil its anti-piracy responsibilities with a Do228 MSA acquired from Hindustan Aeronautics Limited (HAL) Kanpur in India.

The aircraft has been fitted with an Israeli Elta EL/M 2022 maritime radar system.

Working alongside the Do228 is a Twin Otter, equipped with a L3 Wescam MX-15 FLIR turret, and a Y-12 used for crew training.

A Royal Danish Air Force Challenger has also been based at Mahé Airport in the past, while a Royal New Zealand P-3K2 has done patrols when being swapped over in the UAE, where the RNZAF has a detachment patrolling the local waters.

A National Drug Enforcement Agency (NDEA) was set up in August 2008 and the air

force is tasked with assisting this unit as well as educating itself on drug traffickers and associates with a view to infiltrating and destroying their networks. The NDEA made 574 arrests in 2013, seizing 2.4kg of heroin worth SR 21 million (\$1.6m).

■ SOMALIA

The anti-piracy effort off the horn of Africa saw a huge increase in maritime patrol aircraft flying off the coast of Somalia. Most were based at Djibouti, as part of the European Union Naval Force Somalia (EU NAVFOR) or Combined Task Force (CTF 151). Together with NATO, all three deployed maritime patrol aircraft. Their presence continues, although attacks by pirates are not as common as they were between 2008-2013.

Swordfish sharpens Saab's African edge

Jon Lake looks at Saab's offerings to the African maritime aircraft market and concludes that it is still the cheaper, 'lower end' solutions that are expected to be most in demand.

Though Saab is now energetically marketing its Swordfish maritime patrol aircraft (MPA) mission system on the Bombardier Global 6000 ultra-long-range business jet and the Q400 turboprop regional airliner, the company's earlier maritime offerings, based on the Saab 340 and Saab 2000, remain 'current'.

At the ninth Africa Aerospace and Defence show in September 2016, Saab exhibited its maritime surveillance aircraft (MSA) demonstrator, which is based on the 340B+.

The company is understood to be promoting the Saab 340 MSA to meet a currently unfunded South African Air Force (SAAF) requirement to replace the elderly C-47TP Turbo Dakota aircraft operated by No35 Squadron.

The Saab 340 formed the basis of the company's first maritime aircraft, with the Japan Coast Guard having placed contracts for an eventual total of four Saab 340B+ search and rescue (SAR) aircraft, known as the Saab 340 SAR-200.

Saab saw a potential market for anywhere between 50-100 similar Saab 340 and Saab 2000-based maritime surveillance aircraft over a 15-20 year period, and offered to completely re-life and convert airframes to the new role as they reached the end of their airline service.

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Accordingly, the company took a former Mesaba Airlines/Northwest Airliner 340B and converted it to serve as the Saab 340MSA demonstrator, equipped with a Telephonics 1700B synthetic aperture radar and a new retractable multiple StarSafire HD forward-looking infrared sensor.

The aircraft flew in its new configuration in mid-2011. Basic endurance was quoted as being six-and-a-half hours but an increase to eight hours was possible with the addition of auxiliary fuel tanks.

The Saab 340MSA represented a cost-effective coastal and blue water surveillance and long-range SAR aircraft, but one that

lacked the anti-submarine and anti-surface vessel warfare capabilities of more expensive MPAs.

By July 2012, however, Saab was proposing just such an aircraft in the shape of its Swordfish MPA, a derivative of the Saab 2000, equipped with a Selex Seaspray 7500 maritime surveillance radar, Ultra Electronics active acoustic system, and a FLIR Systems high-definition electro-optical/infrared sensor pod. Whereas the 340 MSA had featured a single mission operator's console, the Saab 2000 had three (or optionally four), and also added a rotary sonobuoy launcher and multi-static acoustic system.

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Eyeing a future UK requirement, the manufacturer promoted the Swordfish to the UK MoD, with commercial Saab 2000 operator, Eastern Airways, offering in-service support. The aircraft was to have been armed with Saab torpedoes, and there were also discussions around the Stingray torpedo.

In the face of a clear preference towards new-build, in-production aircraft by some customers, and with a requirement for longer range and greater capabilities, Saab next looked to integrate its Swordfish mission system on larger platforms, with longer range and endurance, higher performance, and greater weapons capabilities.

In February 2016, Saab announced that its latest Swordfish mission system would be offered on the Bombardier Global 6000 business jet and the Q400 turboprop, offering a new dimension in terms of persistence and intelligence, surveillance, and reconnaissance (ISR) capability.

The Global 6000 Swordfish leverages off Saab's Globaleye airborne early warning platform, with which it shares two-thirds commonality – including the same Seaspray 7500E maritime radar and Star Safire 380 electro/optical turret and the same BOP countermeasures equipment.

The aircraft has four or five mission consoles and can spend 12 hours on station 200nm out. Alternatively, at 1,000nm range, the aircraft has an eight-and-a-half-hour endurance with a SAR payload on its middle stations, or five-and-a-half hours with antisubmarine warfare weapons. The aircraft can carry four torpedoes or air-to-surface missiles.

Saab claims the aircraft will cost one third less than a Boeing P-8, with 50% lower life cycle costs.

The Q400 Swordfish is a similarly high-end solution, with the same sensors as the G600 Swordfish, but with slightly less endurance, only two torpedoes, and a correspondingly lower price tag.

Despite promoting the new Bombardier platforms, Saab is still looking at a 340MSA product, and is still in active discussions with a number of potential customers around the world, not least in Africa.

The Swordfish system is now being energetically marketed on the Bombardier Global 6000 and the Q400 turboprop.



Saab claims the aircraft will cost one third less than a Boeing P-8, with 50% lower life cycle costs.

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No Combat Caravans have yet been sold into Africa, although some countries have expressed interest in the modified version.



Will Africa join the combat

African customers of Cessna's Caravan account for around 10% of total production of the utility aircraft and military users are increasingly purchasing the type. But, asks Alan Dron, will the armed Combat Caravan find its way to the continent?

You can find the Cessna Caravan just about anywhere – from plying subsidised ‘essential air service’ routes in the US far west to ferrying well-heeled passengers to luxury hotels off the rugged coast of Scotland. (The latter involves swapping the usual fixed undercarriage for floats.)

So it is hardly surprising that the single-engined aircraft crops up as a regular visitor at African airports and airstrips, sometimes wearing military insignia.

At least six air arms on the continent operate, or are due to start flying, the Caravan, although even manufacturer Cessna, now part of Textron Aviation, is not always able to say how many of the type are flying in Africa with military pilots at the controls.

“Sometimes we don’t know,” said Bob Gibbs, vice-president, special missions, at Textron Aviation.

“Sometimes a government will have aircraft that they bought through a commercial channel and sometimes they just don’t want us to say.”

Currently, Caravans are known (or believed) to

be operated by the air forces of Kenya, Mauritania, Niger and South Africa, while Cameroon and Chad were due to take delivery of their first examples around the start of 2017.

Most of Africa’s military Caravans are used in the liaison role, ferrying personnel between airfields, but the type’s versatility means it is regularly used for cargo-hauling (particularly with the optional large external cargo pod beneath the fuselage), paratroop training and medevac flights.



However, they are also used for more overtly military purposes, giving modestly-funded air forces a simple intelligence, surveillance and reconnaissance (ISR) capability.

This is achieved through the addition of third-party equipment, frequently an under-fuselage turret with visible light and infrared cameras from specialist providers such as L-3 or Wescam.

“That’s the norm for most of Africa,” said Gibbs.

There is no fixed, or recommended suite of ISR

equipment: “Our customers drive the request. In air forces, if they need an ISR capability they usually have a specific solution that they need or a specific brand that they want to work with.

“Sometimes they want a particular sensor, made by one specific company. Other times, it’s a case of who they’ve worked with before [on similar projects].” Even companies that specialise in integrating this type of equipment, like North American Surveillance Systems, “will put sensors from FLIR or L-3 on the same aeroplane”.

African ISR is not really high-end. “It’s used for border surveillance, poaching control etc. That’s really all you need. They’re not out there trying to do signals intelligence.”

Gibbs believes that versatility is a primary reason for the type’s popularity with African air forces. “We can put four military-type stretchers on the right-hand side of the cabin and attendants on the other side. Or, we can fit a stretcher with a complete [set of] intensive care equipment. Those installations are plug-and-play. You can take the seats out of the right-hand side and have a flying hospital in less than an hour.”

Even those aircraft that fulfil the ISR role have a sensor fit that is installed with removable attachments, allowing the aircraft to switch roles quickly.

The aircraft has no problem getting in and out of a 1,000 metre airfield at maximum take-off weight and often operates out of runways as



Caravan club?

short as 600 metres, depending on payload. Although the fixed undercarriage is not strengthened compared to those in civilian service, high-flotation tyres can be fitted to cope with gravel airstrips or softer terrain.

Cost is a major factor in the aircraft's popularity. A Caravan costs \$2.5-\$3 million out of the factory doors, which makes it affordable to air arms with modest budgets. An ISR fit-out will add around \$1 million, but \$4-4.5 million is probably the maximum price tag.

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Around two years ago, Cessna introduced the larger Grand Caravan EX, which has a more powerful version of the Pratt & Whitney Canada PT6A, which delivers 867shp instead of the basic model's 675shp. "Significantly more horsepower," commented Gibbs.

Ironically, Cessna often competes with itself when African governments come calling for a light transport or liaison aircraft, he added. "They come in and want either a Beechcraft King Air 350 or a Citation Sovereign." When they start looking at what they need the aircraft to do, they realise the cheaper Caravan can fulfil all, or most, of their requirements.

When it comes to the light transport role, some countries realise they can buy a small fleet of Caravans for the price of a larger light tactical transport, such as the CASA C-212.

However, more usually, the Caravan finds itself competing with medium-category helicopters such as the Airbus H125 AStar. When air forces do their homework, they realise that the operating costs of the Caravan are as little as 20% of the helicopter's, said Gibbs.

"We see dispatch rates upwards of 99% and because it's a very common commercial platform, logistics and support are very low cost." The number of civilian Caravans operating in Africa also means that "in any country in Africa", you can find mechanics that can work on them.

The aircraft can take on a more warlike role in its Combat Caravan role, which typically carries single AGM-114 Hellfire laser-guided missiles under each wing. A batch has been sold to Iraq and Lebanon. "I can't comment on how active they are," said Gibbs, "but if you look for information in the public domain, you'll find that they've fired their weapons."

No Combat Caravans have yet been sold into Africa, although some countries have expressed interest in the modified version. "There are conversations going on, but nothing that we can comment on. There's active interest, but not really from Africa too much."

However, with new operators Chad and Cameroon due to join the Caravan club imminently, the aircraft will soon become an even more regular sight on the continent.



KIOWA WARRIOR FOR TUNISIA

The first of 24 Bell OH-58D Kiowa Warrior helicopters delivered from the US were noted flying in Tunisia in late August, reports Jon Lake

Tunisia is one of the first beneficiaries of the US Army's budget-driven 2013 aviation restructure initiative, which saw it forced to shelve plans to acquire a new-build armed aerial scout helicopter and to retire its entire fleet of 312 Kiowa Warrior armed scout helicopters.

The armed reconnaissance mission is being taken over by the larger, more expensive AH-64D/E Apache attack helicopters and by a combination of unmanned platforms.

Kiowa Warrior remains an extremely capable and versatile battlefield helicopter, with advanced mast-mounted sighting systems and a range of powerful weapons, including guns, laser-guided and unguided rockets and Hellfire anti-tank guided missiles (ATGMs).

The aircraft are being made available through the USA's excess defense articles (EDA) and foreign military sales (FMS) programmes, and will be supplied to multiple allied nations.

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The OH-58Ds being sent to Tunisia were drawn from the US Army's 1st Squadron, 17th Cavalry Regiment based at Fort Bragg, North Carolina.

The US has been keen to help to improve Tunisia's security as it is seen as an important force for political stability and economic progress in North African, and a vital ally in the battle against Islamist terrorism.

The Kiowa Warriors will be used for border security operations and against Al-Qaida in the Islamic Maghreb (AQIM) insurgents, fighters of the Islamic State in Iraq and the Levant (ISIL) in neighbouring Libya, as well as Ansar al-Sharia in Tunisia (AAS-T).

They will provide a welcome boost for Tunisia's ageing helicopter force, which includes the survivors of two UH-1N and two UH-1H helicopters taken on strength in 1975, 18 Italian-built Agusta-Bell AB205s in 1980, and at least four AB412s.

These helicopters serve with 31 and 32 Squadrons based at Pointe Karoube (Bizerte-La Karouba), a separate heliport connected to Sidi Ahmed Airport.

They may also equip the co-located 33 Squadron, though the status of this unit is uncertain, and an unidentified unit at Gafsa.

LES DRONES AU SERVICE DE LA PAIX EN CENTREAFRIQUE



Les drones Patroller & Sperwer de Safran au Salon du Bourget.

La France va déployer une unité de drones tactiques au sein de la MINUSCA en Centrefrique. Les drones de reconnaissance utilisés seront des Sperwer de Safran Electronics & Defense. Des détails avec Vincent Chappard.

Ces SDTI constituent la composante de renseignement aéroporté de l'Armée de Terre. Ils contribueront au bon déroulement du mandat de la Mission multidimensionnelle des Nations Unies pour la Stabilisation en Centrefrique, la MINUSCA, prolongé jusqu'au 15 novembre 2017 avec environ 13 000 soldats et policiers. Il s'agit d'assurer la sécurité des civils et résister aux groupes armés.

Le ministre français de la Défense, Jean-Yves Le Drian a annoncé la fin de l'opération Sangaris à la fin d'octobre tout en précisant que même si l'armée française sera moins visible, elle sera « présente, active et vigilante ». Selon lui, « le contexte actuel de sortie de crise requiert désormais une approche globale ».

Environ 350 militaires français, équipés de drones d'observation, resteront sur place dont une centaine au sein de la force de l'ONU. Le 61^{ème} Régiment d'Artillerie, qui n'avait pas été en opération depuis le retrait des forces françaises d'Afghanistan, va opérer les drones Sperwer Mk.II de Safran Electronics & Defense pour observer, détecter les menaces et désigner les cibles. Des actions

indispensables lors des combats terrestres.

Durant six heures, le drone Sperwer peut assurer l'ensemble des missions de renseignement, de surveillance, d'acquisition de cibles et de reconnaissance ISTAR. Des informations précises sont recueillies grâce à sa boule optronique gyrostabilisée Euroflir 350.

Il dispose des capacités nécessaires pour être déployé sur tout théâtre d'opération dont un décollage sur catapulte et une récupération avec parachute sur un rayon d'action de 200 km avec liaison directe (LOS). De plus, les équipements embarqués offrent une grande polyvalence. Le Sperwer permet la transmission directe des images aux troupes via un terminal RVT.

A noter que les drones Sperwer seront remplacés par le Patroller en 2018. La Loi de Programmation Militaire 2014-2019 prévoit la livraison de 14 drones.

« Intégré à l'espace de bataille numérisé, le Patroller est un système de drones de renseignement et de surveillance temps-réel opérant au profit du commandement pour fournir un appui aux opérations terrestres, contribuer à la protection des unités au contact et produire des dossiers de renseignement. »

Sa conception modulaire permet l'emport et l'exploitation d'une charge de renseignement multi-capteurs de plus de 250 kilos en cellule ou en nacelles pour des vols de classe 20 heures et jusqu'à 20 000 pieds d'altitude.

Selon Philippe Petitcolin, DG de Safran, « fort des 25 ans d'expérience dans les drones tactiques, le choix du Patroller confirme la position de premier plan de l'industrie française dans le secteur des drones de surveillance en Europe ».

Pour le président de Safran Electronics & Defense, Martin Sion, le choix du Patroller est « un label de performance et de qualité » qui permet à la société « de disposer des meilleurs atouts pour saisir les opportunités à l'export sur le marché des drones de surveillance ».

Le Patroller suscite déjà de l'intérêt notamment en Asie et au Moyen-Orient.

SUMMARY

SAFRAN'S DRONES AID UN MISSION

The French army is deploying its tactical 'Sperwer' reconnaissance drones with the UN's mission to the Central African Republic that's now extended to November 2017.

The drones, from French company Safran, are part of the French army's airborne intelligence outfit and they will contribute to the implementation of the UN mandate that has seen around 13,000 troops and police helping to ensure the safety of civilians from armed insurgents.

Although France's defence minister, Jean-Yves Le Drian, said that 'Operation Sangaris' would end in Q4 2016, he confirmed that the French army will continue to be 'present, active and vigilant'.

Up to 350 French soldiers, equipped with the drones, will remain on the ground, including around 100 within the UN force. France's 61st Artillery Regiment, that has been non-operational since withdrawing from Afghanistan, operates the Sperwer Mk.II drones to observe, detect threats and designate targets.

With its 200-km range and mission duration of six-hours, the drones use catapult take-off and parachute recovery, the Sperwer allows direct transmission of images to ground troops.

The Super Mushshak continues to be an attractive proposition as a primary training aircraft with air forces in Africa and the Middle East.

PICTURE: ALAN WARNES



NIGERIAN AIR FORCE OPTS FOR SUPER MUSHSHAKS

With the introduction of a new glass cockpit, the Super Mushshak has been unleashed with a new lease of life. As a result, the Pakistan Aeronautical Complex (PAC) Kamra, which builds the primary trainer, has won contracts with the air forces of Qatar and now Nigeria.

Alan Warnes reports.

PAC Kamra chairman, Air Marshal Arshad Malik, shakes hands with the NAF's chief of training and operations, Air Vice Marshal Ahmed Iya, after signing the contract.

PICTURE: PAF



The deal to supply 10 Super Mushshaks to the Nigerian Air Force (NAF) was sealed on October 21, after the PAC Kamra chairman, Air Marshal Arshad Malik, travelled to Abuja, the country's capital.

The contract includes operational training and technical support by the Pakistan Air Force (PAF). The PAC chairman said: "We are very happy with this latest sale but now we are looking at more markets."

In a bid to fulfil the primary training requirements for new NAF pilots as soon as possible, Super Mushshaks, currently flying with the PAF, were being airfreighted to Nigeria as African Aerospace was going to press.

The plan is to replace them, within eight months, using brand new aircraft with glass cockpits and an enhanced environmental control system. Assembly of these aircraft is already under way at the PAC Kamra production plant.

The Super Mushshaks will be based at Kaduna, where the NAF's Flying Training Command HQ is based, and are likely to serve the 301 Flying Training School, which has been flying the elderly DANA Air Beagle since 1995.

It was during a graduation ceremony at Kaduna for 10 young pilots, in June 2016, that NAF chief of air staff, Air Marshal Sadique Abubakar, first revealed the NAF had recently concluded the purchase of 10 new Super Mushshak aircraft from Pakistan to train future pilots.

A PAF spokesman commented at the time: "This contract will not only open new avenues for export of aviation equipment to foreign countries but also help in generating revenue for the country."

Both the PAF and the NAF enjoy a good working relationship, with similar aircraft like the F-7 and C-130 serving the two countries.

As well as acquiring the Super Mushshak, the NAF is also planning to induct at least three JF-17s, with aspirations to purchase more. It is feasible that both sides could foster even closer relationships, with PAC overhauling NAF types already serving the PAF,

although no one would comment on such possibilities.

The Super Mushshak was launched by the Aircraft Manufacturing Factory (AMF) in 1995, and made its first flight on August 15, 1996. Inside the cockpit, two pilots sit side-by-side, with the ability to fit a third seat. With unusual slightly swept forward wings, the Mushshak pilots get an excellent view both up and downwards, as well as an outstanding low speed and short take-off/landing capability.

With its six cylinder Textron Lycoming IO 540 V4A5 260hp (194kW) engine, the aircraft can operate at a cruising speed of 135 knots (250km/h). In a bid to boost interest and new sales, AMF integrated the new glass cockpit, allowing pilots an easier transition from this 70s-era training aircraft into a 21st century jet trainer with all its latest avionics.

PAC continues to invest in an aircraft it believes still has plenty to offer as a primary/elementary trainer, with two different versions of glass cockpit available, both by US companies – Dynon and Garmin. It first appeared in public with two multi-function displays, at the Dubai Airshow in November 2011.



More than 300 Mushshak/Super Mushshak piston trainer aircraft have been delivered around the world. Domestically, the Pakistan Army took 170 for military training and communication roles.

Pakistan's allies have taken many too – Iran (25), Oman (8), Saudi Arabia (20), and Syria (6), while South Africa's civil flying clubs have taken a small number as well. The figure is set to rise with the sales to Nigeria (10) and Qatar (eight).

The Primary Flying Training Wing at PAF Academy, Risalpur, has graduated pilots from all over the world since the Mushshak was inducted into service in the mid-70s. Pilots have come from countries such as Iran, Iraq, Kuwait, Saudi Arabia, Turkmenistan and Turkey, in addition to Pakistan.

Kuwait saw its first course of student pilots graduate from primary training on the Super Mushshak at Risalpur in early November 2016, as it looks to start training its own pilots again.

Meanwhile, PAC is not resting on recent Super Mushshak successes, and is believed to be in discussions with several nations, including Turkey, the Maldives and some African countries.

Ghana's small unit makes a huge impact

Erwan de Cherisey takes a detailed look at the Ghana Air Force operation in Mali.

The Ghana Air Force (GAF) has been deployed in Mali for more than two years as part of the United Nations multidimensional integrated stabilisation mission (MINUSMA).

It provides MINUSMA's only permanent military fixed-wing air support capability with the Ghana Aviation Unit (GHAV) and its single Airbus Defense & Space C295 twin-engine transport.

Ghana has a long history of participating in UN peacekeeping missions. The GAF has had a helicopter unit deployed in Ivory Coast as part of the UN operation in Côte d'Ivoire (UNOCI) for several years.

The deployment of the C295 to Mali took place in the aftermath of a failed attempt by the UN to establish a permanent transport unit in Entebbe, Uganda, to support any of its operations in Africa. The idea was that a pair of leased C295s would have been operated and maintained by GAF personnel as part of an agreement between the UN and Accra.



The initial concept considered a contract of up to seven years for both aircraft backed by a comprehensive Airbus DS Full in Service Support package (FISS). As the aircraft would not have been assigned to a specific mission, it would have given the UN unprecedented flexibility and full inter-mission cooperation without governments' interference and would have been an African-managed solution for African operations. Financial technicalities prevented this project from reaching completion.

Nevertheless, the benefits offered by the C295 in a UN operation context were not lost on Ghana. Thus, when MINUSMA was established in 2013, the UN requested Ghana to consider deploying to Bamako. The deployment would increase Ghana's presence in Mali, which already included an Army engineering unit initially deployed as part of MINUSMA's forerunner, the African-led International Support Mission to Mali (AFISMA).

From the outset, Ghana decided its contribution to MINUSMA would centre around a force multiplier and not merely



Ghana's C295 plays a vital role in peacekeeping missions.

additional troops. As Group Captain Frank Hanson, GHAV's first commander, explained in 2015: "The idea was for Ghana to move from being a troop contributing country (TCC) and turn into a capability contributing country (CCC), whose contribution to the mission would bring significant added value."

Thus, the decision was taken to send an aviation unit to MINUSMA after air support was found to be an area where additional capabilities were critically needed.

A single C295 transport aircraft, one of only two such planes then in service with the GAF's N°2 Squadron, was deployed to Bamako on September 23, 2014, a week after the GHAV's main body had itself arrived in Mali.

Gp Capt Hanson headed the deployment of GHAV 1 and handed over to his successor, Group Captain Reginald Yaw Cole, on May 1, 2015. GHAV 1 concluded its deployment in September 2015, having flown a total of more than 873 hours in 420 sorties, to be relieved by GHAV 2 in

October the same year. GHAV 2, still under the command of Gp Capt Cole, deployed to Bamako in October 2015 and flew until April 2016, a total of over 577 hours in 285 sorties. That same month, flying activities stopped as negotiations over the renovation of the unit's letter of assist (LOA) and its redeployment to

Gao, 320km east-southeast of Timbuktu, began between Ghana and MINUSMA.

Despite MINUSMA's urgent need for transport aircraft, throughout the following months, as negotiations dragged on, UN regulations forced GHAV 2's C295 to remain grounded in Bamako. Eventually, after the UN finally agreed to provide GHAV with the necessary support and servicing facilities for its aircraft in Gao, the unit, by then GHAV 3, but still under the command of Gp Capt Cole, relocated there.



The C295 arrived on October 25, 2016 and conducted its first operational sortie from its new base on October 27.

On November 29, 2016, a suicide vehicle borne improvised explosive device (SVBIED) detonated in Gao airport, 50 metres from GHAV 3's C295 and destroyed a number of prefabricated offices. The C295 was hit by shrapnel which caused several cracks on the composite parts of the airframe, the severity of which will be determined after Airbus DS personnel conducts a series of tests on the aircraft. The C295M has since been flown back to Ghana for inspection and repairs.

"Our mission in Mali is to provide air transport services in support of the MINUSMA mandate," explained Gp Capt Cole. "We are to conduct tactical airlift, administrative and logistic support flights, medical/casualty evacuations,

Ghana decided its contribution to MINUSMA would centre around a force multiplier and not merely additional troops



humanitarian aid distribution, troop insertion and extraction, quick reaction force (QRF) response, search & rescue (SAR), air reconnaissance, etc.”

He added that GHAV could also be called upon to carry out inter-mission cooperation duties, being temporarily redeployed by the UN to another mission if the latter had an outstanding air support requirement.

To carry out such assignments, Gp Capt Cole can rely on the 54 men under his command, who hail from the GAF's different branches. These comprise 10 officers and 44 other ranks. Seven of GHAV's officers, including Gp Capt Cole, are pilots and operate in crews of three instead of two, in order to mitigate the extended duration of most missions and prevent excessive crew fatigue. All personnel undertook a six-week pre-deployment training course in Ghana, which comprised cultural awareness classes, background information on the conflict in Mali, weapons training, etc.

Since 2014, GHAV has flown all over Mali, to and from Bamako, Mopti, Gao, Timbuktu, Tessalit and Kidal (although the airport there has been closed since April 2016). While Bamako and Mopti both have air traffic control (ATC), none of the other destinations do, which means the crew must rely on the aircraft's instruments alone to carry out their approach.

Sorties routinely include six to eight hours of flight as the aircraft flies to multiple destinations on the same day. Thanks to its excellent fuel efficiency,

the C295 can fly to Kidal or Tessalit and back to Bamako without refuelling.

Flying conditions in Mali are often extreme, with high temperatures reducing payload, no navigation aids and fast-changing weather. Sandstorms are a frequent occurrence in the north of the country and can drastically reduce visibility. Indeed, in some instances, GHAV's C295 has landed in Kidal with less than 2,000 metres visibility.



When flying in the troop/passenger transport role, the C295 can accommodate up to 50 people, while in a cargo configuration it can load a maximum of four NATO-standard pallets. It can also be flown with a mixed load of cargo and passengers or, in a medevac role with several stretchers and medical personnel, a configuration which has been used in several instances, including in support of the Malian military.

The maintenance team comprises 22 officers and NCOs. Daily servicing is performed for each flight day. As a result of dust and sand, engine compressors are inspected and washed every two weeks or 50 hours, while in Ghana this is done only every 130 hours. The lack of proper servicing facilities, particularly hangars, means maintenance has to be completed in the open, which is another difficulty as it exposes the personnel and equipment to the sun, the heat and the dust.

Every three months, the aircraft returns to Ghana for major servicing, which includes 300 hours/eight months A checks.

The GHAV has performed outstandingly since its debut in Mali in 2014. The unit's continued presence in the country is a testament to the political commitment of Accra in supporting stabilisation in Mali.

All MINUSMA military personnel, including then force commander Major General Michael Lollesgaard, who have flown with the GHAV, prize the unit's high standard of professionalism and the exceptional availability and flexibility of its C295.

The Ghanaians have also made a name for themselves by carrying out dangerous assignments, such as flying into Kidal, despite a confirmed man portable air defence system (MANPADS) threat.

It is in no small part because of the operational successes of the GHAV that the Malian Government has decided to order a C295 for its air force.

Since its redeployment to Gao, the GHAV has flown less than 80 hours. Ghana had opposed the redeployment to Gao not only because of the lack of suitable support facilities but also on security grounds as it felt that GHAV would be much more exposed to attacks than in Bamako. While MINUSMA remains committed to having the C295 flying from Gao, the current situation means that until security improves there, the aircraft will have to operate from Bamako.



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Les pays d'Afrique du Nord tentent de développer leur potentiel dans le secteur de l'aviation d'affaires même s'ils sont en retard par rapport aux pays plus au sud. Dans certains pays, ce secteur n'est même pas à l'agenda en raison de l'instabilité politique. Vincent Chappard explore les faiblesses et les opportunités de ce marché qui peine à décoller.

L'Afrique...

Malgré un ralentissement en 2015 et des prévisions de livraison révisées à la baisse, l'avenir du marché mondial de l'aviation d'affaires «reste favorable à long terme» selon le constructeur canadien Bombardier.

Les exploitants et les fabricants ne voient pas de croissance ou de gain de dynamisme avant les 18 à 24 prochains mois. Mais le continent africain, considéré comme un «marché important» pour Bombardier, semble «prometteur» pour les prochaines années dans le secteur de l'aviation d'affaires, selon Khader Mattar, directeur des ventes pour le Moyen-Orient, l'Afrique, l'Asie-Pacifique et la Chine.

L'Afrique est également une région clé pour l'avionneur américain Textron Aviation. «Malheureusement, elle connaît ce que nous considérons comme un ralentissement temporaire en raison d'une confluence de facteurs négatifs, y compris des économies déprimées, des restrictions de change et dans certains cas -

notamment la Libye - des troubles politiques et sociaux. Cependant, nous sommes optimistes quant à l'avenir dans ce vaste marché», affirme Kriya Shortt, directeur des ventes et marketing de Textron Aviation.

Après des ventes en plein essor et des indicateurs de croissance positive entre 2008 et 2014, les avionneurs et les opérateurs adaptent leur stratégie pour renforcer leur présence dans certains pays ou pour saisir les opportunités futures sur un marché avec une croissance annuelle de 4,4%.

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«La montée de la classe moyenne a entraîné une culture entrepreneuriale. Les entreprises ont grandi et avec elles, la nécessité d'accroître l'accès. Tous ces facteurs ont transformé l'Afrique en un marché très intéressant pour l'aviation d'affaires», explique Rady Fahmy, secrétaire général de l'AfBAA.

Les pays d'Afrique du Nord



“Nous sommes optimistes quant à l’avenir dans ce vaste marché.”

KRIYA SHORTT

une terre d'opportunités

comme le Maroc, l’Égypte, la Tunisie, l’Algérie ou même la Libye (principalement pour l’évacuation médicale), chacun à son propre rythme, tentent d’étayer les obstacles administratifs et réglementaires, modernisent leurs infrastructures tout en améliorant les normes de sécurité. La stabilité politique aidera certainement ces économies à développer le secteur de l’aviation d’affaires.

Selon les spécialistes de l’aviation d’affaires, l’Égypte occupe la deuxième ou la troisième place en termes de jets. Le pays a connu une période de croissance jusqu’à la révolution politique en 2011, au cours de laquelle les activités commerciales ont prospéré et les entrepreneurs ont beaucoup voyagé. « Le marché se stabilise même s’il ne reviendra pas immédiatement à ce qu’il était en 2010. Mais il y a de bons signes pour 2017/18 », affirme Rady Fahmy.

Il met aussi l’accent sur le fait qu’il est essentiel d’avoir « une vision globale de l’Afrique » pour



Un Beechcraft King Air.

encourager tous les pays africains à développer leurs potentiels.

L’Algérie possède des richesses et un vaste territoire qui élargit les possibilités de l’aviation d’affaires. Toutefois, ce pays qui figure parmi les 10 premiers « n’a pas encore atteint son potentiel » en partie en raison « d’un changement de modèle économique ».

En revanche, la Tunisie « ne montre pas beaucoup d’activité dans ce secteur ». Ce n’est pas « un

grand marché principalement en raison des troubles politiques ».

Malheureusement les événements politiques ont augmenté les mouvements en Libye. Les avions volent vers et en dehors de ce pays dévasté par la guerre pour évacuer les blessés. Ils servent principalement pour l’évacuation médicale.

« Les pays d’Afrique du Nord ont moins de demandes que d’autres pays d’Afrique comme le

Nigeria, l’Angola et l’Afrique du Sud qui ont les plus grandes flottes d’avions d’affaires. L’Égypte, autrefois un puissant marché pour l’aviation de direction a vu des baisses drastiques depuis les troubles politiques et la baisse des activités touristiques.



« Nous ne voyons pas une croissance immédiate dans ces secteurs dans le futur immédiat », explique Colin Steven, directeur général de Veling Tayara (membre du groupe mauricien Veling), fournisseur des solutions de crédit-bail pour l’aviation d’affaires.

« Pour arriver à une croissance soutenue dans le secteur de l’aviation d’affaires, nous devrions idéalement voir une amélioration des prix des matières premières et des conditions économiques générales. La stabilité politique et le soutien du gouvernement à des projets liés à l’aviation contribueraient également à améliorer

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le marché, qui regorge de potentiel », souligne Kriya Shortt de Textron Aviation.

La sécurité reste un problème majeur en Afrique où le système de transport terrestre n'est pas toujours fiable. « Il faut acheter de nouveaux avions pour transporter des entrepreneurs, les hommes d'affaires, ou des médicaments pour les missions humanitaires et l'évacuation médicale », souligne Rady Fahmy.

Le Maroc est l'un des pays d'Afrique du Nord qui compte jouer un rôle de premier plan dans ce secteur. Le Royaume veut devenir un hub vers l'Afrique dans le secteur de l'aviation d'affaires.

L'Office national des aéroports (ONDA) a choisi Swissport Executive Aviation et Jetex Flight Support de Dubaï pour fournir les premiers services FBO au Maroc.

« Ces cinq nouveaux FBO amélioreront considérablement l'hébergement des passagers et la manutention de l'aviation d'affaires », a souligné Mohammed Zouhair El Aoufir, directeur exécutif de l'ONDA dans un communiqué de presse daté du 20 mai 2016.

Ces nouveaux FBO seront déployés dans les aéroports suivants: Casablanca Mohammed V, Marrakech Menara, Rabat-Sale, Agadir et Al Massira Dakhla.

Les FBO de Jetex au Maroc offriront une gamme complète de services.

« Comme les mouvements d'aviation d'affaires devraient augmenter annuellement en Afrique, nous espérons renforcer notre position avec l'ouverture stratégique de nos FBO au Maroc », déclare Adel Mardini, PDG de Jetex.

« Les deux premiers FBO Jetex dans les aéroports de Casablanca Mohammed V et Marrakech Menara sont opérationnels depuis octobre 2016. Les aéroports de Rabat-Salé, d'Agadir-Al Massira et de Dakhla devraient ouvrir prochainement ».

D'autre part, Rebecca Durrer-Bolle, directeur général de Swissport Executive Aviation, souligne que « les licences accordées consolideront la position de la société sur le marché » et aideront « à améliorer davantage la prestation et la qualité du service aux clients ».

■ **TEXTRON AVIATION**

Textron Aviation est présent en Afrique depuis de nombreuses années. Elle fait du business avec les institutions gouvernementales, les particuliers et les opérateurs charters. « La large gamme de produits de Textron Aviation est particulièrement intéressante pour ce secteur, en particulier nos avions à turbopropulseurs qui sont très populaires sur l'ensemble du continent pour leur capacité à atterrir presque partout. »

En termes de marché, de livraisons, de croissance, de flotte et de trafic, l'Algérie et le Maroc sont les deux principaux marchés de Textron Aviation. « Il est évident que lorsque la Libye se stabilisera, ce sera également un marché dynamique et que nous sommes impatients d'explorer », ajoute Kriya Shortt.

Textron Aviation continue de soutenir ses



Khader Mattar: "Malgré certains défis qui affectent la croissance du secteur, Bombardier connaît une croissance constante en Afrique."
Ci-dessus: Le Bombardier Challenger 350.



clients existants dans toute l'Afrique, à mesure que les conditions du marché s'améliorent. « Nous sommes également dédiés à l'innovation et nous présenterons l'évolution prochaine de notre grande famille d'avions - la Cessna Citation Longitude - au continent l'année prochaine. Nous recherchons toujours des façons d'améliorer notre gamme de produits et avons introduit l'avionique Pro Line Fusion dans nos modèles King Air cette année. »

■ **BOMBARDIER**

Le constructeur canadien Bombardier considère l'Afrique comme un « marché important pour les avions d'affaires » avec un taux de croissance de sa flotte de 3,2%. La flotte a plus que doublé au cours de la dernière décennie, affichant une croissance significative de la demande.

Selon les prévisions, la flotte passera à 520 en 2025 contre 380 en 2015. L'aviation légère et moyenne représentera plus de 80% des 200 livraisons planifiées.

« Malgré certains défis qui affectent la croissance du secteur, Bombardier connaît une croissance constante en Afrique », souligne Khader Mattar.

Les industries pétrolière, gazière et minière ainsi que les secteurs financier et bancaire

favorisent la croissance économique en Afrique. Les investissements étrangers (en provenance de la Chine en particulier) entrant sur le continent ouvrent de nouvelles perspectives qui stimuleront certainement les économies locales.

■ **DASSAULT AVIATION**

L'aviation d'affaires représente environ 70% de l'activité de l'avionneur français. En Afrique du Nord, les ventes sont essentiellement gouvernementales comme en Egypte. Les plus gros clients sont l'Afrique du Sud et le Nigeria.

Dassault a abaissé ses prévisions pour les livraisons de jets cette année en raison de la crise économique et de la « guerre des prix ».

Dans de telles circonstances, le groupe veut s'adapter et faire preuve de « flexibilité » pour « rebondir » en misant sur « un siècle d'innovations, d'expérience accumulée, de patiente transmission des compétences, de stabilité managériale et de saine gestion », comme le souligne Eric Trappier, président-directeur général de Dassault Aviation.

Malgré la concurrence de Bombardier, Embraer et Gulfstream des États-Unis, Dassault Aviation mise sur son nouvel avion haut de gamme, le Falcon 8X. Le premier aéronef a été livré à Amjet le 5 octobre 2016, marquant l'entrée en service du nouveau porte-avion de la gamme ultra-longue Dassault.

Comme le montrent les indicateurs, le marché de l'aviation d'affaires traverse une période plutôt trouble. Mais la stabilité politique, les décisions appropriées et les plans de développement, les investissements à long terme dans l'infrastructure et le développement des ressources humaines, l'amélioration de la sécurité et une gestion efficace peuvent sûrement illuminer le ciel dans les années à venir.

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“Ethiopia will become a major business aviation player sooner than many may believe.”

RADY FAHMY



New chapter in the business life of Ethiopia

AfBAA reaches Ethiopia to nurture business aviation.

Kaleyesus Bekele
reports.

Ethiopia is one Africa's leading commercial aviation countries. Its national carrier, Ethiopian Airlines, is the largest and most profitable airline in the continent. However, so far the country seems unable to replicate that success in general and business aviation.

Business aviation is non-existent. Though Ethiopia is one of the fastest growing economies in Africa and Addis Ababa is the seat of the African Union, United Nations Economic Commission for Africa and other major international and regional organisations, there isn't a single business aviation operator.

There is no business jet registered in Ethiopia and there are only six charter flight operators in the country operating light aircraft like the Cessna Caravan and Beech 1900.

Despite all the challenges, the African Business Aviation Association (AfBAA) has expressed its belief that Ethiopia will soon become an African business aviation hub. It predicts that Ethiopia and Ghana will record major business aviation growth in the coming years.

AfBAA recently launched its first country chapter (AfBAA Ethiopia) in Africa. The association held an inaugural meeting and a round-table discussion with

stakeholders in Addis Ababa.

In his keynote address, AfBAA executive director, Rady Fahmy, said seven countries lead African business aviation operation and aircraft ownership. “We have added two countries that we believe will witness major growth in the upcoming period,” he said. “One of those two countries is Ethiopia. Ethiopia will become a major business aviation player sooner than many may believe.”

Fahmy advised Ethiopian operators to organise, engage and act. “I am here to share with you that it is our belief that it is only a matter of time before Ethiopia becomes a major business aviation hub. Yes it is inevitable Ethiopia joins, or perhaps leads, African business aviation just like it does in commercial aviation. The speed at which this inevitable prediction becomes a reality rests on you.”

President of the AfBAA Ethiopia chapter, Dawit Lemma, said that the vision of the association is to establish the Addis Ababa Bole International Airport as a business aviation hub for Africa. Lemma, managing partner of Krimson Aviation, said that the country chapter would work with all the stakeholders towards the development of business aviation in Ethiopia.

At AfBAA's first country round-table

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panel discussion, Dawit G Egzabher, chairman of National Airways, said that private operators were always discriminated against when compared to Ethiopian Airways.

Egzabher, who established the first private airline (Gosh Air) in Ethiopia 20 years ago, said that general aviation had not grown an inch in the past two decades. "We have to wait for more than 24 hours to obtain flight permits for charter flights," he said.

Egzabher added that permit restrictions, capacity limitations (private operators cannot operate aircraft with more than 50 seats), and access to finance were some of the major challenges facing the general aviation sector in Ethiopia.

Captain Solomon Gizaw, managing director of Abyssinian Flight Services, added: "There is a very big gap in the perception of aviation and business or general aviation. Business aviation has got nothing to do with luxury. It has to do with value. Business aviation is a motivator. It is a business catalyst."

Gizaw said that Bole International had only one runway, which airlines shared with charter flight operators and pilot training schools. "It is not fair for the airlines to share a one runway airport with small aeroplanes. And it's also not fair for a training pilot to run the engine for 45 minutes and to be told to call back after two hours," he

lamented. "We have been demanding a general aviation airport in the vicinity of Addis Ababa but we have been told to go to the regional airports while our customers are here in Addis Ababa."

Gizaw claimed that preferential air traffic controller (ATC) treatment was given to Ethiopian Airlines, discriminating against the charter flight operators in all Ethiopian airports. He also raised issues related to customs procedures in importing aircraft components.

"Failure to grasp by all parties the catalytic role business aviation could play in the impressive economic growth of Ethiopia is a major problem," he said. However, he added, despite all the challenges, the potential for the development of business aviation was tremendous.

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Pierre Lucas, chief of the UN Humanitarian Air Service in Ethiopia, said that Bole International was not convenient for general aviation operation. He pointed out that there was no dedicated general aviation terminal and maintenance hangar, adding that securing fuel for an aircraft was a challenge. "Sometimes flights are delayed or cancelled because of fuel. It is not because there is shortage of fuel but priorities are given to the

bigger aircraft," Lucas said.

He further complained that the UN, which operates humanitarian flights, was obliged to renew its flight permit every two weeks. "I have a dedicated staff who, every two weeks, go to the Ministry of Foreign Affairs and the Ministry of Defence to renew our flight permit."

Zemedeneh Nigatu, managing partner of Ernst and Young East Africa, seemed optimistic about the development of the business aviation sector in Ethiopia. He said the business aviation sector should tell its story, adding that the Ethiopian Government had designed a policy that supported the aviation sector. "Why did aviation succeed in Ethiopia? The country's growth strategy includes aviation as a critical component of the growth. Look at the spectacular success of Ethiopian Airlines. It can secure financing whenever it can. The commercial aviation success could be replicated in business aviation."

Girma Shiferaw, vice president corporate strategy, communication and alliances with Ethiopian Airlines, defended the airline's position, saying that it was not fair to criticise the national airline for the challenges facing the private operators. "There is a wrong perception about Ethiopian Airlines. We do not consider private operators as competitors, like foreign



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Rady Fahmy and Dawit Lemma foresee an important role for Addis in African business aviation activities.

airlines. Rather you provide complementary services. There is no discrimination, rather the problem is related to inadequate facilities at Bole International Airport," Shiferaw said.

He maintained that the problem would be resolved when the massive Addis Ababa Airport expansion project was completed within a year-and-a-half. "Ethiopian is ready to support general aviation in the areas of training and maintenance. We need to cooperate and work together."

Stanley Joseph, managing director of Kilimanjaro Aviation, said that business aviation was a tool, not a luxury. "Aircraft are economy builders, they are not a rich man's toy. No-one can achieve alone. We need to work together to change the perception."

Based on the round table discussion, AfBAA drafted a recommendation report that was sent to the participants.

Lemma said the final report was submitted to the Ministry of Transport, the Ethiopian Civil Aviation Authority and the Ethiopian Airports Enterprise.

AfBAA, the trade association of business aviation operators and stakeholders in Africa, which was established by 12 founding members in 2012, now has 114 members and is striving to promote business aviation in Africa.



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Foxcon's Terrier could see a boost in training sales thanks to the Algerian presence.



Aussie firm with a foxy new trainer

A new breed of aircraft could be the ideal trainer for the Gulf's growing carriers.

Liz Moscrop
reports.

Foxcon Aviation, a producer of light sport aircraft (LSA), has had a brush with success in Australia and is now expanding its paw print to the MENA region.

The Australian firm has appointed Algeria-based Yahia Almouboudi as its exclusive agent in the region.

He explained: "We are searching for partners and investors in the region as we are looking to build a facility in Libya or Algeria, or possibly Qatar or the United Arab Emirates."

The reasoning is clear. LSA products are economical and ideal for flight-training applications. And, as Almouboudi pointed out, flight-training is a growth area in the region.

He explained: "When you look at the expansion of the likes of Emirates and Qatar, you can see there is a real need for cost-effective, yet robust trainers."

Foxcon's range of aircraft is the result of global national airworthiness authorities (NAAs) adopting similar rules to address advances in sport and recreational aviation technology.

LSA rulings aim to allow for the manufacture of safe and economical light sport aircraft. In June 2008, Foxcon used the guidelines to create its Terrier 200 type.

The company says that the key to the aircraft's success is its lightness. Its maximum take-off weight of just 600kg comes from a construction that comprises a perforated foam-like board placed between the two layers of fibreglass, which loses its resin during the vacuum-moulding process as it is sucked through the board's perforations, bonding the two layers and providing very high-strength skin. This is particularly valuable when constructing the fuselage and aerofoils.

Its propeller is made of carbon composite, rather than

wood, which can be subject to fatigue and distortion when entering rain during flight.

Its numbers also stack up favourably when compared to heavier types, such as Cessna's ill-fated, yet practical, Skycatcher. The Terrier200 is priced at \$59,600 (according to the company's website) rather than the \$95,500 for the Skycatcher.

It also offers a 600nm range, lands in 100 metres and cruises at 110kts. It is not particularly thirsty either, with a fuel burn of 13 litres per hour, as opposed to the Skycatcher's 22 litres. It can also come with a glass cockpit, depending on customer specifications.

As a private pilot who has been involved in aviation for several years, Almouboudi said he could see the potential across the region as commercial carriers expand their routes and the requirement for pilots grows.

Indeed, should Foxcon succeed in its ambitions it will join Italy's Tecnam, which has already had some success in the Gulf, with an installed fleet of at least 11 of its 14 different types. Distributor Aviation Home is one of the largest distributors in the Middle East region (GCC countries) and is Tecnam's sole distributor in Qatar.

Aviation Home also offers shipping, customs clearance, registration, assembly, training and maintenance, and has aircraft flying with both private owners and flight-training schools in Qatar and Saudi Arabia.

Although Cessna only sold 195 Skycatchers, there are around 50 companies still producing LSAs, which are ideal for flight-training applications, as they are both robust and economical. "I believe this product could succeed in the Middle East first," said Almouboudi, "and then expand into northern Africa."

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Around 35,000 annual road deaths, difficulties encountered in accessing the nation's oil refineries, plus 10,000 annual deaths resulting from problems getting to hospital, all point to a helicopter boost in Nigeria. However, operational safety is a big concern.

Chukwu Emeke reports.



Caverton Helicopters in Lagos is driving demand for safe operations.

SAFETY THE KEY AS NIGERIA'S HELICOPTER BUSINESSES GEAR UP

Over the years, helicopters in Nigeria have been used primarily for servicing oil and gas contracts, emergency evacuations, and by the security services and private operators.

In recent months, however, Nigeria's helicopter business sector has been significantly affected by the volatility in global oil prices and militancy in the Niger-Delta region, where large quantities of the nation's crude oil can be found.

The militants have been threatening to shoot down aircraft after bursting oil pipelines and creating emergencies that require helicopters to attend.

Additionally, the unemployment rate and other economic challenges have helped spawn a Government campaign away from reliance on the nation's oil revenue sources and towards diversification.

The Government's focus is now towards agriculture, mining and other sectors, which should mean a higher demand for helicopters required for prospecting of mining sites, agricultural operations and emergency services.



Helicopter operators are preparing themselves to tap into the imminent opportunities. "We are looking very seriously at our non-oil and gas support sector and we have made significant inroads in that area," explained Caverton Helicopters managing director, Captain Josiah Choms.

Stakeholders are, however, concerned about safety issues involved in the emerging trend. "There have not been definite regulations as regards helicopter operations. Demand exists but the issues of infrastructure, legislation and regulation need to be addressed," explained Izy Air CEO Alex Izinyon.

Because they possessed the required skills and capacity, oil companies had, for a long time, dictated how helicopters operated in the country. Also, due to the absence of clear airspace rules, determining procedures has been largely left to the helicopter operators.

With lower airspace radar issues and other human factors to be taken into account, the Nigerian Civil Aviation



Captain Josiah Choms:
"We are looking very seriously at our non-oil and gas support sector and we have made significant inroads in that area."

Authority (NCAA) has felt the need to equip itself with experienced helicopter inspectors and other expertise required to ensure safe helicopter operations in the country.

The NCAA had been urged to improve oversight of helicopter operations following the accident on August 12, 2015, which saw a Bristow Helicopters S-76 helicopter plunge into the Lagos Lagoon.

One of the Accident Investigation Bureau (AIB) preliminary safety recommendations said the NCAA needed to ensure development of aeronautical charts and liaise with relevant sister agencies to ensure proper regulation of communication mast installation.

AIB's commissioner, Felix Abali said his organisation was already collaborating with helicopter manufacturers and other relevant international organisations to establish causes of helicopter accidents recorded in the past, in order to ensure that measures were taken to guard against future occurrences.

Bristow Helicopters (Nigeria) said it is taking measures to further improve its operational safety measures to avoid accidents.

Meanwhile, the Nigerian Airspace Management Agency (NAMA) also says it is making efforts to enhance safety. An air traffic management (ATM) assessment survey of the Niger-Delta coastal area for the deployment of automatic dependent surveillance broadcast (ADS-B) services has been completed. The agency says the project is aimed at deploying surveillance facilities to aid in the safe and effective monitoring and control of low-level helicopter operations in the oil-rich coastal areas.

It has also signed a commercial agreement with Exxon Mobile, and has begun the provision of air traffic services at Finima-Bonny airstrip. This is in addition to similar services currently being provided at other oil fields at Eket, Osabi, Escravos and Focados."

To further improve safety, and following the exchange rate problems between the naira and the US dollar, there have also been calls for the Government to consider waivers for helicopter operators with regards to spares imports in order to secure economic viability for the operator, which significantly influences operations safety.

East Africa presents clear opportunities for growing helicopter demand due to its vast remote areas with few airstrips.

Githae Mwaniki has been looking at the rotary-wing industry in Kenya.

Why more Kenyans are giving it a whirl...

The Kenyan helicopter sector has been growing relatively quickly when compared to other countries in the region.

With more than a dozen certified commercial operators and over 75 helicopters on the Kenyan civil aircraft registry at the end of 2015, the country's rotary-wing sector is second only to South Africa in the continent and comparable to both Nigeria and Egypt.

The sector includes established operators like Everett Aviation, Lady Lori, Heliservices, Phoenix Aviation, Sicham Aviation, Penial Air, Aberdair Aviation, Airkenya Aviation, Muhwai, Helicopter Charter of East Africa, Youth Aviation and Tropic Air, plus newer entrants Kwae Island Development and Northwood Aviation.



The growth is largely driven by the successes of the ongoing oil and gas exploration in northern Kenya and VIP transport, predominated by politician travel.

Non-commercial helicopter operations include the aerial conservation work undertaken by the Kenya Wildlife Services Air Wing, aerial patrol by Kenya Pipeline, cargo hook overline support by Kenya Power, and policing support by the Kenya Police Air Wing.

The Eurocopter (now Airbus Helicopter) models are still the leading make in the area, largely due to their availability in the used market, which has proved to be popular with upcoming operators.

The French Airbus AS350B2 is the most popular model; with the American Bell 206/407 leading in aerial works

such as wildlife conservation and cargo hook services. The Robinson and Enstrom makes have the lowest numbers.

The larger range of helicopters, like the Russian Mikhail Leontyevich Mil 17, are not available to the commercial market as they do not meet the Kenyan civil aviation airworthiness code requirements, thus leaving the aircraft for use only in the military and policing operations, which are exempted from the regulations.

The Kenya Police Air Wing, a recent beneficiary of increased investment from the state, has received an Italian AgustaWestland helicopter. The AW139 was the first of the make on the Kenyan registry. Preliminary assessment of its operations have been satisfactory.

A second Agusta Westland AW109 has been purchased by the Kenya Electricity Transmission Company to use in aerial patrol and power overline support. The Kenya Air Force has also made an order for three AW139s to be used for transport, with one to be designated as a presidential helicopter.

The Airbus AS350B2 has proven to be reliable and powerful enough to handle demanding loads. It is relatively easy to acquire due to its wide availability in the used market.



The Bell 206 jet ranger and newer Bell 407 have increased in numbers despite lower availability in the used market. There is strong manufacturer support with numerous approved maintenance centres, low operating costs and high operating loads, making most operators stick to the models for all their usable life.

Newer operators have widened the depth of the market by targeting a specific clientele.

For example, Helicopter Charters of East Africa is operating a Robinson R44, focusing on scenic tourist charters and filming operations. It charges a rate of just \$800 per hour.

The operator is aiming to grow this market segment with its piston-driven aircraft targeting clientele who previously could not afford to utilise rotary-wing services due to relatively high rates averaging around \$1,800 per hour.

Aberdair Aviation has been focusing on the oil and gas sector with its Bell 407 helicopter. Meanwhile, Muhwai and Penial Air operate the type targeting executive transport.

Youth Aviation, with its three Airbus AS350B2s, has targeted safari charters, executive transport and filming. It recently launched a new flight marketing technique by introducing the flight share option, where it sells individual seats on flights to a predetermined location, as opposed to a full aircraft charter.

Sicham Aviation offers charters as well as being the only certified training organisation offering helicopter pilot training.

Lady Lori's Eurocopter EC 130 B4 in action.





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NIGERIA SUFFERS AS GHANA'S HUB GETS IT RIGHT...

Chukwu Emeke turns the spotlight on Ghana's emerging hub status.

Since Ghana has not too many local carriers, like Nigeria's Arik Air and Medview, which operate Lagos-Accra flights, the strategy of partnership with international carriers and other airlines has helped to boost its aviation market.

The population of foreign investors and students in the country has continued to increase, thereby contributing to increased traffic at its airports.

Senator Ben Murray Bruce, chairman of neighbouring Nigeria's senate committee on privatisation and a member of the senate aviation committee, recently admitted: "Ghana's aviation sector is expanding at the expense of Nigeria's. Ghana is the new aviation hub in west Africa."

He continued: "There is something that Ghana has, which Nigeria does not have. It is the ability to separate critical sectors of the economy, like air transport, from politics."

More airports in Ghana are being upgraded to international status.

□□□□□

President John Dramani Mahama recently inaugurated the first phase of the expansion and upgrade of the Tamale Airport to international status. This project involves, among other work, the extension of the runway from 2,480 metres to about 3,940 metres and the installation of a lighting system to accommodate bigger aircraft.

He said the project, which was being undertaken by Brazilian firm, Geiroz Galvao Construction, became necessary because of the increasing number of airlines that use Kotoka International Airport

(KIA) and the growing demand for domestic air transport.

The Tamale Airport expansion project, when completed, is expected to increase capacity to accommodate wide-bodied aircraft, such as Boeing 747-800 series, and upgrade facilities comparable to those at KIA. If for any reason an aircraft cannot land at KIA, it would be diverted to Tamale.

□□□□□

KIA's Terminal 3 project, which began in March 2016, is expected to ease the pressure on the existing two terminals.

It should be able to handle up to five million passengers a year, with an expansion potential of up to 6.5 million. Construction of the new terminal is expected to be completed by the end of 2017.

During the recent recurring incidence of aviation fuel shortage in Nigeria, most Nigerian airlines have been compelled to lift fuel from Ghana.

Actually, most international airlines that operate flights from Lagos, Nigeria have, over the years, done their fuelling in Accra because the cost of aviation fuel is lower than in Nigeria.

This has even supported the airlines' argument for charging European and American-bound passengers lower fares than their counterparts travelling from Lagos.

In August 2016, Ghana dropped its aviation fuel price by 20% following consultations between President Mahama and the National Petroleum Authority (NPA).

The president said the objective was "to further improve the volumes of airlines that fly into the



Nigeria's Arik and Medview's choice of Accra lends credibility to Ghana's ambition to become the West African hub.



country”, adding that the Government’s vision of making Accra the preferred aviation hub in west Africa was on track, and that the phenomenal increase in traffic, particularly transit traffic, coupled with the expansion of KIA, gave credence to the fact that Ghana was becoming an attractive destination.

Investors have already embarked on establishing

comprehensive maintenance, repair and overhaul (MRO) centres in Accra to service the entire west African sub-region.

Ghana’s Civil Aviation Authority (GCAA) says it has intensified efforts to enhance safety and strengthen compliance levels in operations in line with International Civil Aviation Organization standards and recommended practices.



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Prévue initialement en décembre 2015, la mise en service de l'aéroport international Blaise Diagne (AIBD) du Sénégal est annoncée pour le dernier trimestre 2017.

Vincent Chappard a abordé les raisons de ce retard et les ambitions de cette nouvelle infrastructure avec Abdoulaye MBODJI, directeur général de l'AIBD.

Les banques gardent le nouveau hub du Sénégal sur la bonne voie

L'AIBD du Sénégal est l'un des projets les plus ambitieux du pays. Il projette de devenir un véritable hub pour l'Afrique de l'Ouest. Véritable outil économique, ce nouvel aéroport pourra, selon les autorités sénégalaises, favoriser les investissements par des gains de productivité et d'efficacité du transport aérien dans de nombreux domaines.

« L'aéroport est indispensable pour le développement économique du Sénégal et c'est pour cela que nous faisons tout pour le terminer au plus vite », soutient Abdoulaye MBODJI, directeur général de l'AIBD.

L'AIBD vise avant tout à désengorger Dakar. La capitale regroupe en effet sur 3 % du territoire, 25% de la population et 80% de l'activité économique. Cette nouvelle infrastructure aéroportuaire va permettre un meilleur aménagement du territoire et la création d'un nouveau pôle économique. Il sera également un pilier pour le développement du tourisme et des exportations en particulier des produits frais.



Débutée en 2007, la construction de ce nouvel aéroport a suivi un avancement. En 2013, le projet était à 54%. Au mois de décembre 2014, plus de 80% des travaux étaient achevés.

Cependant, la construction a connu un coup d'arrêt début 2016 en raison d'un litige financier opposant l'État sénégalais au groupe Saudi Binladin Group, maître d'œuvre des travaux. Ce conflit s'est transformé rapidement en un véritable bras de fer et a eu pour conséquence l'arrêt des travaux par le groupe saoudien. Selon des informations proches du dossier, l'État du Sénégal et le Saudi Binladin Group ne se sont pas entendus sur le paiement d'avenants pour la finition des travaux des infrastructures aéroportuaires.

Le financement du projet de construction de l'AIBD a été conçu en deux phases : un crédit relais à court terme et un crédit moyen et long terme avec comme option initiale, le recours aux banques commerciales. L'option de recourir aux banques commerciales a été abandonnée au profit des banques de développement constituées en un



Des activités connexes autour de l'AIBD

■ UN PARC HÔTELIER

Dans un premier temps, des établissements hôteliers d'environ 350 chambres à héberger les passagers en transit, le personnel navigant et les équipes techniques des compagnies aériennes.

■ UN CARGO VILLAGE

Un Cargo Village y sera installé avec une liaison directe avec l'aérogare de fret du nouvel aéroport.

■ UN CENTRE DE MAINTENANCE AÉRONAUTIQUE

Le Sénégal souhaite se positionner comme la destination préférentielle en Afrique de l'Ouest dans le domaine de la MRO. L'aéroport compte rétablir l'expertise sénégalaise acquise avec le Centre de Maintenance d'Air Afrique basé sur l'Aéroport international Léopold-Sédar-Senghor. L'avant-projet a été réalisé. Le coût du projet est estimé à 53,7 millions d'euros et les autorités sont à la recherche de financement et de partenaires stratégiques.

■ UNE ÉCOLE DE MAINTENANCE AÉRONAUTIQUE

L'industrie aéronautique/transport aérien et portuaire fait face aujourd'hui à des mutations organisationnelles importantes et il devient urgent de développer le savoir-faire dans ces secteurs-clés. La zone aéroportuaire de l'AIBD devrait offrir un environnement propice à l'École de la Maintenance aéronautique. Elle va former des techniciens supérieurs, des ingénieurs et des gestionnaires de haut niveau scientifique et managérial dans les domaines aéronautiques et de la gestion portuaire.

pool de huit banques conduites par la Banque africaine de développement (BAD) et la Banque islamique de développement (BID).

Une solution a été trouvée par la nomination d'un consortium turc composé de spécialistes du BTP Summa et Limak. Il a été chargé de boucler les travaux de l'aéroport AIBD.

« Nous avons eu quelques difficultés avec la société saoudienne Saudi Binladin qui était en charge de la construction de cet aéroport », reconnaît Abdoulaye Mbodji. « Le groupe turc BTP Summa et Limak nous a donné 10 mois pour la finalisation des travaux (nldr : à compter du 1er septembre 2016). Ils vont terminer les travaux d'ici le mois d'avril 2017. »



Le calendrier a glissé en raison du déblocage des sommes requises au redémarrage des travaux. Il a fallu du temps pour recueillir l'accord de l'ensemble des bailleurs de fonds qui financent le projet.

Les autorités sénégalaises par la voix du ministre du Tourisme et des transports aériens, Maimouna Ndoeye Seck, vise la mise en service de l'aéroport d'ici le dernier trimestre 2017.

Selon Abdoulaye Mbodji, il y a encore la construction du nouveau magasin de fret, la mise en place des procédures et des câblages du nouveau terminal.

L'AIBD couvre une superficie de 4500 hectares (la moitié est utilisée à ce jour). Il dispose d'une aérogare principale de 4200m² sur

« Nous sommes en phase préparatoire et nous considérons que l'ensemble des certifications seront obtenues d'ici 12 mois comme le transfert de l'ancien au nouvel aéroport. »

ABDOULAYE MBODJI

deux niveaux. L'aéroport aura une capacité de 3 millions de passagers par an et de 10 millions en 2035.

Une seconde aérogare est dédiée aux opérations de fret offrant une capacité annuelle de 50 000 tonnes. Une troisième aérogare sera réservée au transport des pèlerins.

L'aéroport disposera d'une piste principale de 3500 mètres de longueur et 75 mètres de largeur. Il pourra accueillir les avions long-courriers comme l'A380 et le B787. L'infrastructure d'AIBD pourra accueillir simultanément 50 avions dont 26 gros porteurs, 6 petits et moyens courriers et 18 appareils d'aviation générale.

Le processus de certification est en cours.

« Nous sommes en phase préparatoire et nous considérons que l'ensemble des certifications seront obtenues d'ici 12 mois comme le transfert de l'ancien au nouvel aéroport », précise Abdoulaye Mbodji.

Tout le trafic aérien de l'aéroport Léopold-Sédar-Senghor sera transféré à l'AIBD avec une trentaine de compagnies aériennes desservant Dakar. Le Sénégal compte également quatre aéroports domestiques : Saint-Louis, Ziguinchor, Cap-Skiring et Tambacounda.

L'AIBD se trouve donc au cœur de la stratégie de développement des autorités sénégalaises. Le temps presse car on constate également une réelle émergence des pays voisins dans le domaine du transport aérien. La concurrence est rude mais reste un élément incontournable dans le développement économique d'un pays.

SUMMARY

BANKS KEEP THE NEW SENEGAL HUB ON THE RIGHT TRACK

Initially planned to open in December 2015, the launch of Senegal's Blaise Diagne International Airport (AIBD) is now scheduled for Q4 2017.

One of the West African country's most ambitious projects, Senegal's AIBD is designed to become a major hub for the region.

"The airport is vital for the economic development of Senegal and that is why we are doing everything possible to finish it," said Abdoulaye Mbodji, the project's director general.

The Senegalese capital, Dakar, comprises 3% of the territory, 25% of the population and 80% of the economic activity of the country and the new airport is designed to allow both enhanced management of the territory and the creation of a new economic focus. It will also be a pillar for the development of tourism and exports, especially fresh produce.

Construction began in 2007 and by 2013 the project was 54% complete. By December 2014, more than 80% of the work was finished.

However, construction stopped early in 2016 due to a financial dispute between the Senegalese State and prime contractor.

The latest financial scheme features a development pool of eight banks led by the African Development Bank (AfDB) and the Islamic Development Bank (IDB). This solution also features the appointment of a Turkish consortium featuring

specialists in the construction industry, Summa and Limak, and the Senegalese authority said it is now confident that the airport will be operational by the end of 2017.

According to the project's director general, remaining work includes the construction of the new freight warehouse; implementation of procedures; and the electrical wiring of the new terminal.

The AIBD covers an area of 4,500 hectares of which around half has been utilised so far. It features a main terminal of 4,200m² on two levels that will have a capacity of around three million passengers per year, increasing to 10 million by 2035.

A second terminal, specifically for freight operations, will have an annual capacity of 50,000 tonnes. A third terminal will be used for the transport of Hajj pilgrims.

The airport will have a main 3,500m x 75m runway designed to accommodate long-haul aircraft such as the A380 and B787. The airport's infrastructure will be capable of dealing, simultaneously, with 50 airliners including 26 wide-bodies, six single-aisle and 18 GA.

Certification is already well underway and it's anticipated that it will be completed by the end of 2017, enabling all flights to be transferred from the existing Leopold-Sédar-Senghor facility.

Remote control could resolve challenges for Africa's quieter airports.

REMOTE CONTROL...

With Africa predicted to be one of the fastest-growing aviation regions over the next 20 years, the pressure on its aviation infrastructure is set to grow. Jon Lake reports.

Appropriate, affordable and cost-effective infrastructure development will be critical to the sustainability of any future expansion of African aviation.

A key part of that infrastructure lies in the provision of adequate air traffic control (ATC) services, which may be required at airports that may be used on an irregular basis, or that are geographically remote.

Some airports may log very small numbers of arrivals and departures each day and manning the tower permanently at such airfields can be problematic, and wasteful, if not prohibitively expensive. But these airports can be immensely valuable to the local communities, providing a lifeline with the outside world, and closing them may not be desirable.

One solution, now being marketed by Saab Digital Air Traffic Solutions, is to use what the Swedish company calls a 'digital aerodrome' concept, leveraging its newly developed remote tower system.

This system, developed under a joint venture with Sweden's air navigation service provider Luftfartsverket (LFV), promises to revolutionise air traffic control by allowing a number of airports to be controlled from one location, allowing small and

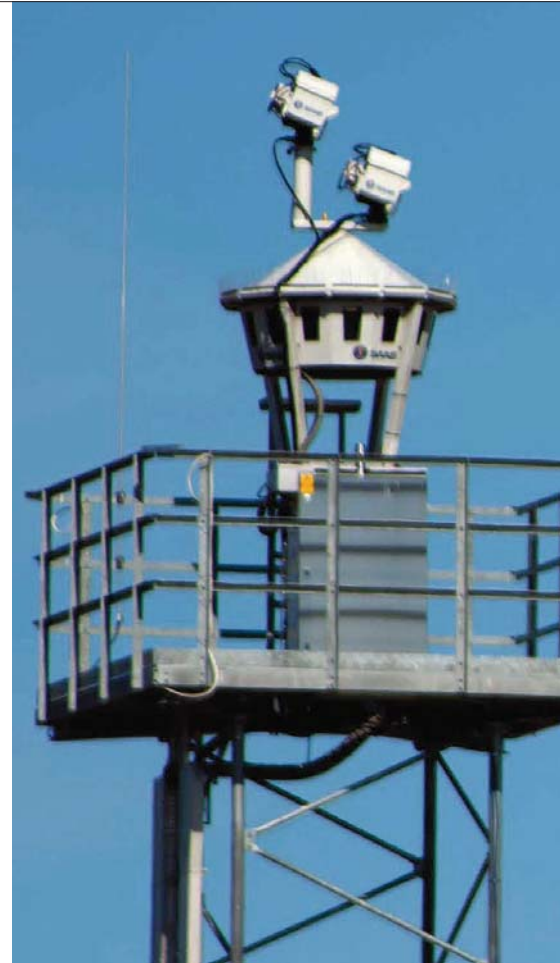
medium sized regional airports to remain competitive and reduce costs.

The system uses a range of remote sensors, including video, audio and others, to provide a continual, comprehensive view of an airport. It also incorporates sophisticated software and datalinks to allow ATC services to be provided by personnel located at a remote tower centre (RTC) located many miles away from the airfield.

Personnel in the RTC look at a high-definition real-time synthetic picture from the remote tower that is almost indistinguishable from what would be seen from a conventional tower in the same location, though symbology can also be overlaid on the picture of the outside world, as it might be in an aircraft head-up display, further enhancing a controller's situational awareness.

Airspace users are provided with exactly the same appropriate level of service from the remote tower as if it was being provided locally at the airport from a conventional tower.

Tracking is visual, and is overlaid with radar information, while pixel detection allows even the smallest objects to be spotted, tracked and identified. The technology can penetrate fog,



mist and rain, and can detect wild animals on runways. Even birds and very small drones (with a wingspan of 18 inches or less) can be detected from ranges of 2,500 metres.

In Sweden, sensor turrets can use compressed air to clear snow away from the camera lens!

The same pictures can easily be streamed to the airport fire service, or to local handling agents, further improving airport efficiencies.

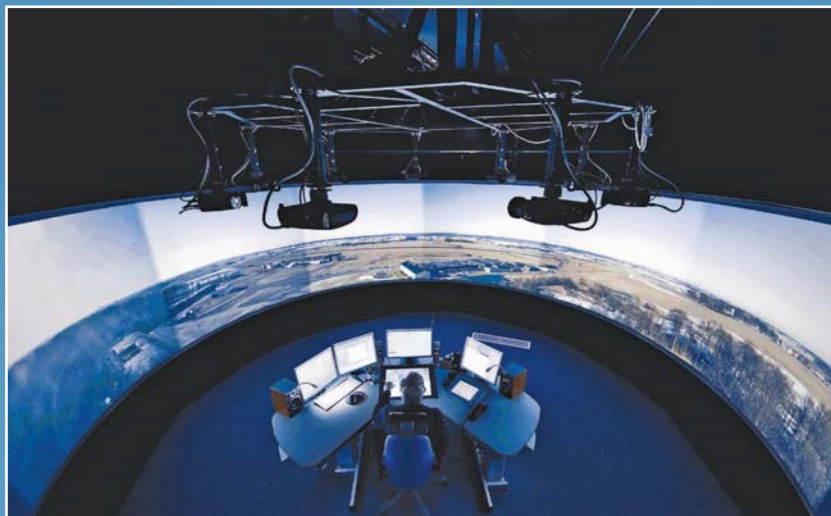
Using the remote tower system, a single air traffic controller could manage more than one airport from an RTC. Work on developing, validating and analysing how this 'one man multi-airport' operation could be achieved has been undertaken as part of the European Union single European sky air traffic management research (SESAR) development programme.

The remote tower system can also be used to augment the capabilities of manned towers, allowing emergency/contingency services to be provided at major airports, if a fire or other emergency (or even routine maintenance) prevented use of the usual control tower building.

The contingency remote tower facility would be at a different physical location, and so would be able to continue unaffected, maintaining high traffic throughput and capacity.

The same sensor systems can also be used to increase situational awareness in a conventional

This system promises to revolutionise air traffic control by allowing a number of airports to be controlled from one location



local airport tower by providing for the synthetic augmentation of vision in poor visibility.

A remote tower system could be deployable, with sensors mounted on something like Saab's Giraffe radar system, which is air-portable on board a C-130 Hercules. This would allow an austere forward air base to be provided with enhanced ATC services during deployed military operations, for example, or during humanitarian relief missions.

The remote tower passed site acceptance testing (SAT) in February 2013, paving the way for full operational certification by the Swedish Transportation Authority later that year.



The system was declared operational in Sweden in April 2015 after trials, in which Saab sensors deployed at Ornskoldsvik Airport, provided data to a RTC at Sundsvall 100km away. This feat earned Saab the prestigious IHS Jane's ATC award for delivering the first operational and approved remote tower in the world. It was presented on March 7 2016 at the World ATM Congress in Madrid, Spain.

Subsequently, further RTCs were installed at Sundsvall and will be installed at Linköping City Airport this year.

Further trials were undertaken in the USA (at

Leesburg Executive Airport, Virginia) Norway, Ireland (with a remote tower at Cork, and another at Shannon, both controlled from Dublin) and at Alice Springs in Australia, the latter using an RTC 1,500km away in Adelaide.

More recently, live traffic at Groningen Airport Eelde has been controlled from the remote tower working position at Schiphol, Amsterdam.

Saab said it has another three potential customers (one of them a military user) "lined up".

In Africa, one limiting factor to growth and expansion is likely to be the number of trained and qualified ATC controllers. The International Civil Aviation Organization (ICAO) has forecast a global requirement for 40,000 air traffic controllers by 2030, as the world's airlines double their combined fleet of commercial jets and as the number of passengers approaches 7 billion per annum.

Remote towers promise to allow a more efficient use of ATC manpower, helping to ease the flow of traffic around major airports as they expand, and allowing the operation of airports that might otherwise be too expensive to keep open.

They look likely to allow Africa to make the most efficient possible use of its manpower resources.

SOMMAIRE

UNE TOUR DE CONTRÔLE « VIRTUELLE »

Comme l'Afrique sera l'une des régions les plus dynamiques en matière d'aviation au cours des 20 prochaines années, la pression sur son infrastructure aéroportuaire devrait augmenter.

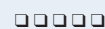
Des détails avec Jon Lake.

L'industrie du transport aérien en Afrique aura besoin d'un développement infrastructurel approprié, abordable et rentable pour pérenniser sa croissance.

Une composante essentielle sera la disponibilité des services d'une tour de contrôle notamment dans des aéroports utilisés de manière irrégulière ou ceux qui sont géographiquement éloignés. De tels services peuvent engendrer des problèmes, des coûts faramineux et du gaspillage. Pourtant, ces aéroports sont utiles aux populations locales.

Le concept « d'aérodrome virtuel » commercialisé par la compagnie suédoise, Saab Digital Air Traffic Solutions, pourrait être une solution intéressante.

Ce système développé dans le cadre d'une coentreprise avec le fournisseur suédois de services de navigation aérienne Luftfartsverket (LFV) promet de révolutionner le contrôle aérien en permettant le contrôle d'un certain nombre d'aéroports d'un seul endroit, réduisant ainsi les coûts tout en maintenant la compétitivité.



Le système utilise une gamme de capteurs à distance pour fournir une vue continue et complète d'un aéroport. Il intègre également des logiciels sophistiqués et des liens de données pour permettre à un personnel situé dans une tour de contrôle située à plusieurs kilomètres de l'aérodrome de fournir des services adéquats.

La technologie peut pénétrer le brouillard, la brume et la pluie, et peut détecter les animaux sauvages sur les pistes. Elle peut même détecter les oiseaux et les très petits drones.

Les mêmes images peuvent facilement être transmises au service d'incendie de l'aéroport ou aux agents de manutention locaux pour plus d'efficacité. Les opérations militaires et des missions humanitaires peuvent également en bénéficier.

Le projet a passé le test d'acceptation (SAT) en février 2013, ouvrant ainsi la voie à une certification opérationnelle complète par l'autorité suédoise des transports plus tard la même année.

Le système a été déclaré opérationnel en Suède en avril 2015 après des essais. Il a été installé dans des aéroports en Europe, aux États-Unis et en Australie. La compagnie Saab a trois autres clients potentiels dont un à usage militaire.

En Afrique, le manque de contrôleurs aériens qualifiés et formés pourrait être un frein au développement. Ces tours « virtuelles » pourraient permettre à l'Afrique d'exploiter efficacement ses ressources humaines pour assurer une croissance durable.

ZAMBIA'S INDUSTRIES

Plans are under way to diversify Zambia's economy away from copper mining by developing the aviation and tourism industries.

Humphrey Nkonde reports.

Income for the Zambia Revenue Authority (ZRA) goes down when the price of copper on the international market falls, leading to budget deficits because the red metal accounts for 80% of the country's foreign earnings.

The Government issued a \$1.25 billion bond in July 2015 to reduce that year's fiscal deficit and it also plans to acquire an additional \$1.2 billion loan from the International Monetary Fund.

To develop the aviation industry, funds have been sought to upgrade Kasama Airport (KAA), a gateway to several attractions in the northern tourism circuit covering Northern, Luapula and Muchinga provinces.

Notable tourist attractions near KAA include two major waterfalls. Lumangwe, commonly referred to as the miniature Victoria Falls, is Zambia's second largest, while the Kalambo Falls are the country's highest, with a single water drop of 221 metres (722ft).

Volcanic eruptions millions of years ago formed the Muchinga Escarpment, resulting in several waterfalls in the northern part of the country.

The escarpment also forms "roof Zambia" with an elevation 2,301 metres above sea level. It is in the Mafinga district, which is also reachable from the airport.



Another physical feature that was created by the volcanic eruption is Lake Tanganyika, Africa's deepest fresh water lake, which is capable of supporting submarine tourism.

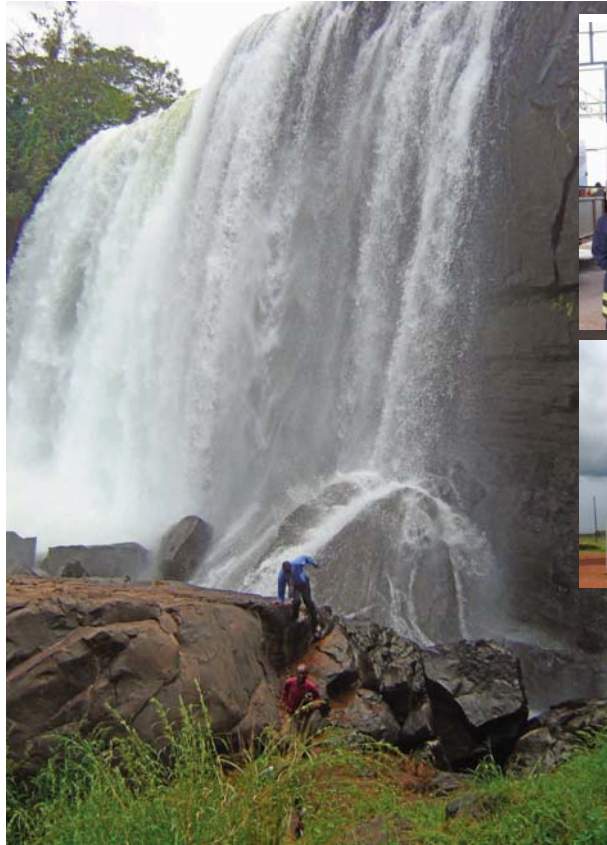
KAA is also not very far from Chishimba Falls, the first point where tourists can be taken when they arrive in Kasama.

The town is the seat of the Mwela Caves, where the early stone-age people, known as the Batwa, crafted naturalistic and schematic paintings on rocks before the Bantu people settled there.

With all those attractions, there is justification for improving infrastructure at the Northern Province's major airport.

A bituminous runway, measuring 45 metres x 4,600 metres, is under construction by China's Anhui Shui'an Construction Group.

There are also plans to turn the current gravel



Top: Fire fighters in front of an E-One fire and foam tender at Kasama Airport.

PICTURE: HUMPHREY NKONDE.

Left: Chishimba Falls near Kasama.

PICTURE: NATIONAL HERITAGE CONSERVATION COMMISSION.

Above: Kasama Airport's original control tower and one of the two Nissen huts.

PICTURE: HUMPHREY NKONDE.

runway into a taxiway once the new runway has been completed.

Airport manager, Raphael Sakala, said: "All the Boeing series of aircraft would be able to land at this airport once the bituminous runway has been completed. We are also planning in the next phase to construct another terminal and a modern control tower with a 360 degree view midway of the new runway."

The Government recently released funds to construct a terminal building that has a common lounge as well as waiting halls for both local and international passengers.

The terminal has a VIP lounge for the president, senior government officials and important visitors, and houses offices for the ZRA customs division and the immigration department.

KAA was one of the destinations for the defunct state-owned Zambia Airways during the government of first president, Kenneth Kaunda.

During that time, British Petroleum (BP) Air operated a fuel depot at KAA that supplied avgas, jet fuel and lubricants.

The depot was ceded to the Zambia Air Force following Zambia Airways' liquidation.

"We are looking for investors to construct a new fuel depot and run it," said Sakala.

Even before the secondary international

airport is fully developed, it has three E-one fire (foam) tenders, a defender British Land Rover and an Iveco ambulance, as safety issues are being taken very seriously.

This follows the transformation of the department of civil aviation into a full-fledged civil aviation authority with technical and financial assistance from the European Union.

Historically, KAA started as a military base for the British Colonial Government. Britain constructed an airfield in Kasama during World War I, but it was mostly used during World War II.



It was converted into a civilian aviation facility after the war and used to be one of the destinations for state-run Zambia Airways after Northern Rhodesia gained political independence from Britain on October 24, 1964.

However, the civil aviation industry in Zambia nose-dived after the government of the late second president, Frederick Chiluba, liquidated Zambia Airways in 1994.

To this day, KAA uses the original control tower from when the facility was a military airfield.

Two dome-shaped Nissan huts, common with

SHOW THEIR METTLE



The new terminal building at Kasama Airport. PICTURE: HUMPHREY NKONDE.

military facilities, close to the old control tower, signify the origin of the airport as a military base.

One of the huts, in which a fridge has been installed, is used as a bar and restaurant.

Proflight Zambia, the only local airline with scheduled flights to Kasama, has a small office in the newly constructed terminal building.

The airline uses 12-seater Cessna Grand Caravans; the domestic airline has four services from Lusaka's Kenneth Kaunda International Airport on

Mondays, Tuesdays, Thursdays and Fridays.

Its flights to and from Kasama are through Ndola's Simon Mwansa Kapwepwe International Airport on the Copperbelt.

Kasama was the town where General Paul Emil von Lettow-Vorbeck, the commander of German and African troops, who had been assigned to defend German East Africa, now Tanzania, agreed to a ceasefire. To remember the dramatic end to World War I in that part of

Africa, the British Colonial Government erected a cenotaph there.

A field gun, the type that was used by German soldiers during World War One, is one of the tourist attractions near the airport in Kasama. It is under the custody of the National Heritage Conservation Commission.

The British instructed Von Lettow-Vorbeck, in the company of German commissioned and non-commissioned officers, African troops and porters, to march to Abercorn (now Mbala) on the shores of Lake Tanganyika.

The German commander officially surrendered in Mbala on November 25, 1918 and another cenotaph was constructed there. Tourists can reach that monument in Mbala as the airfield there has been opened for civilian aircraft.

Kasama, with several nearby tourist attractions, is strategically placed between air hubs in South Africa and east Africa and could, therefore, serve as a refuelling point for local and foreign airlines as well as a maintenance, repair and overhaul facility.

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**SOUTH AFRICAN AIRWAYS
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Air France Industries KLM Engineering & Maintenance a récemment remporté plusieurs contrats auprès de compagnies aériennes africaines. Vincent Chappard a interrogé le directeur des ventes pour le Moyen-Orient et l'Afrique, Jean-Michel Picard, sur sa vision de la MRO en Afrique.

AFI KLM E&M EN FORCE EN AFRIQUE

Air France Industries KLM Engineering & Maintenance (AFI KLM E&M) est un acteur majeur de ce secteur. Selon Jean-Michel Picard, le marché de la MRO en Afrique est assez réduit mais il se développe pour des clients comme Air Côte d'Ivoire et Congo Airways.

Le secteur reste globalement stable en Afrique du Nord. Cependant certains pays sont quasiment à l'arrêt comme la Libye. D'autres pays comme le Nigeria et l'Angola ont un fort potentiel, malgré un contexte politique difficile.

L'Afrique est donc un marché important pour AFI KLM E&M et le continent recèle des opportunités de développement dans ce secteur.

« Nous avons des contrats sur l'Afrique de l'Ouest mais également en Afrique de l'Est avec des compagnies comme Ethiopian et Kenya Airways », rappelle Jean-Michel Picard. « Nous avons également des activités de MRO pour des clients dans l'Océan indien (La Réunion, Maurice et Madagascar) ».

La maintenance est un enjeu majeur pour les compagnies aériennes et surtout la disponibilité des pièces de rechange. Selon le DG d'Air Côte d'Ivoire, René Décurey, il faut au minimum 24 heures pour réceptionner une pièce commandée et qui doit forcément arriver d'Europe. Chaque incident technique (AOG) devient ainsi problématique.



AFI KLM E&M dispose d'un atout considérable : le réseau d'Air France et de KLM en Afrique. Air France-KLM opère des vols vers 46 destinations en Afrique. Grâce à son partenariat avec Kenya Airways, le groupe a étendu son réseau à 18 autres destinations.

« Air France propose beaucoup de liaisons aériennes régulières sur l'Afrique et nous avons, de facto, une logistique agile et performante à proposer à nos clients », assure Jean-Michel Picard. « Nous détachons souvent sur place le personnel d'Air France qui supervise et gère le support. Cela reste un élément fort et différenciant. »

AFI KLM E&M propose deux types de contrats particulièrement adaptés au marché africain : le contrat en régie et celui à l'heure de vol. Une des stratégies d'AFI KLM E&M est de proposer ses services dès qu'une compagnie émerge en Afrique. Elle prend parfois des parts dans une compagnie comme c'est le cas de KLM avec Kenya Airways ou Air France avec Air Côte d'Ivoire.



Jean-Michel Picard: « Nous pouvons développer notre support MRO mais il est souvent difficile d'envisager d'établir un shop MRO localement »

« Nous pouvons développer notre support MRO mais il est souvent difficile d'envisager d'établir un shop MRO localement », rappelle Jean-Michel Picard.

Il y a pourtant des partenariats réussis comme

Aerotechnic Industries (ATI). Cette coentreprise (entre AFI KLM E&M et Royal Air Maroc) a pour mission de développer sa capacité à répondre aux besoins des compagnies africaines. TAAG Angola a récemment fait appel à ATI pour une visite d'entretien Check C de l'un des Boeing 737 NG. ATI offre à ses clients des capacités de révision A320 et 737NG (Check C à Check D) depuis l'aéroport de Casablanca. Selon Jean-Michel Picard, il existe des discussions avec Tunisair et Egyptair pour établir un partenariat ou des échanges de charge.

AFI KLM E&M poursuivra ses investissements sur ce marché en forte croissance pour renforcer sa position de numéro deux mondial. Dans le cadre de son nouveau projet stratégique Trust Together, le Groupe Air France-KLM va lancer une réflexion sur le modèle industriel de cette activité, en examinant la possibilité d'une filialisation (comme l'a fait récemment Air Algérie) sachant qu'Air France-KLM en conservera le contrôle exclusif.

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Pressure is mounting for increased MRO facilities in west Africa. Chukwu Emeke has been looking into the situation.

Investment key to resolving West woes

The maintenance, repair and overhaul (MRO) situation in Nigeria poses a concern to stakeholders as some airlines in the sub-region have actually had to abandon aircraft taken abroad for routine maintenance because of their inability to pay the bills.

Those aircraft are now languishing at facilities in Europe, South Africa, the Middle East and the United States.

Research reveals that about 25% of aircraft owned by Nigeria's commercial airline operators are on the ground (AOG), either because they are no longer airworthy or are due for maintenance.

The low value of the Nigerian currency, and new foreign exchange (forex) policies, did not help Nigeria's airlines in 2016, according to Captain Nogie Megisson, chairman of Airline Operators of Nigeria. He expressed fears about the safety implications of high maintenance costs amid forex issues, about which Nigeria's Aviation Ministry says it is liaising with the Central Bank.



Fears about huge maintenance costs are not unfounded. It costs a Nigerian airline almost four times what it would cost a similar carrier in the US to change an aircraft nose-wheel. Investigations reveal that airlines pay a minimum of \$500,000 for engine overhaul and about the same amount for C-check maintenance. Considering the limited profit margin, powered by high charges from government agencies, multiple taxes and high fuel costs, raising funds for maintenance is a huge challenge to Nigerian operators. The situation has been further

compounded in recent years by the developing apathy of financial institutions towards aviation investment in Nigeria.

Aero, the oldest non-government airline in Nigeria, suspended operations indefinitely in August 2016. Its CEO, Captain Fola Akinkuotu, had earlier that month raised an alarm during his presentation at an aviation round table quarterly breakfast meeting, saying that maintenance costs were taking up more than 25% of the airline's operating cost as aircraft parts and engines were all imported. "If you have any component of your cost that is more than 25%, you had better watch it," he had warned.

Nigeria's Minister of State, Aviation, Hadi Sirika, sounded an optimistic note, saying that the establishment of an MRO centre was one of the major objectives of his leadership. "We have made a case for a full-fledged private sector-driven MRO facility. The cost of maintenance will be reduced if we establish an MRO within our sub-region," he said.

However, Captain Jari Williams, CEO of Bicourtney Aviation Services, and a pioneer member of the team that established the MRO facility at Akwa Ibom Airport in Uyo, Nigeria, expressed doubts about the Government's commitment.

He said private investment in MRO facilities required government subvention, tax waivers, low interest rates, security, stakeholder engagement and other incentives, which were very difficult to secure in the process of establishing the Uyo facility.

"It is impossible for you to start an MRO without the buy-in of stakeholders," he said, advising Nigeria's Government to take advantage



of the Uyo facility by simply providing the needed equipment and personnel.

Captain Sidi Abdullahi, director of operations for the Nigerian Civil Aviation Authority (NCAA), called for a proper analysis of MRO requirements in the region before embarking on the project. He explained that instability of economic viability affected MRO costs and that airlines in the region, which were defective in planning, would need to change.



However, there are signs that things may be improving. Ghanaian President, John Mahama, revealed recently, while commissioning the first phase of upgrade at the Tamale Airport, that it would be used as a maintenance and servicing centre for aircraft across west Africa.

"We intend to make Tamale Airport a regional aircraft maintenance facility so that aircraft will come from all over the region to do their maintenance and servicing here," he said. Togo-based Asky Airlines, and its shareholder, Ethiopian Airlines, are also planning to establish an aircraft MRO and training centre in west Africa. Ethiopian CEO, Tewolde Gebremariam, said Asky was in talks with the Togolese Government and, if approved, the MRO facility there would cater for Boeing and Bombardier aircraft.

He said Ethiopian's main MRO hub remained in Addis Ababa but that the airline would have regional MROs in Lome, Lilongwe and Kigali, adding that the planned Lome hub



A new hangar at Lagos airport.



An aero maintenance facility before suspended operations.

would maintain aircraft operating in Nigeria, Ghana, Côte d'Ivoire and Senegal.

IAG also plans to establish an MRO facility in Abuja, Nigeria.

Meanwhile, the Caverton Offshore Support Group is on course to provide a new MRO facility at its Ikeja base. "Construction kicked off last year and we are on track to deliver on our promise by having the commercial MRO centre and training school fully operational by 2018," said chairman Aderemi Makanjuola.

Onedot Aviation CEO, Captain Henry Oludotun Ogunyemi, estimated Nigeria would save more than \$9 million annually if airlines in the country could carry out heavy maintenance on their aircraft locally.


He said his company has received NCAA approval to carry out both line and heavy maintenance checks for Beechcraft, HS-125, and Bombardier aircraft, among others, since 2014, and added that the Boeing 737-200 Series and Boeing 737-300/400/500 Series had been approved in June 2016.

He encouraged other domestic airlines to patronise local MROs.

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IFS SPEAKS THE RIGHT LANGUAGE FOR AFRICA

The growing focus on the use of technology throughout the African aviation industry is starting to attract the attention of one of the world's leading software companies. Steve Knight reports from the IFS World Conference in Gothenburg, Sweden.

The civil aviation maintenance and support market is changing with increased use of contracted-out services, power-by-the-hour deals, pressure for standardisation, demand for agility to be able to handle continuous improvement, and new technologies.

And let's not forget traceability, compliance, risk management, and support for the entire asset lifecycle – all key requirements of operators, suppliers and service providers alike.

IFS, a globally recognised leader in developing and delivering software for enterprise resource planning (ERP), enterprise asset management (EAM) and enterprise service management (ESM), has built and deployed solutions with capabilities that cover all aspects of the lifecycle of aircraft, engines and aircraft components.

The company boasts more than 2,800 employees supporting over a million users worldwide from its network of local offices and through a growing ecosystem of partners.

Its applications cover, among other things, fleet and asset management; maintenance repair & overhaul (MRO) including heavy maintenance, complex assembly and component control; enterprise operational intelligence; and supply chain and warehouse management.

The company has a significant presence in most areas of the world and admits, at least from the aerospace side, that it's focus is shifting east towards the Middle East and the Asia Pacific region.



However, it also recognises the vast potential of Africa.

In the aerospace and defence sector, probably it's most significant deal on the continent so far has been with Saab Grintek Defence in South Africa.

A year ago, the software company announced that Saab had chosen to deploy IFS Applications 9 – the new core version of its extended enterprise applications suite – both at its aeronautics unit and within its South African operations.

“We became interested in IFS Applications 9 and its capabilities to help global enterprises ensure improved cost efficiency,” explained Saab CIO, Mats Hultin, at the time.

Now IFS, which has offices in Centurion, South Africa, is eyeing up other possible projects on the continent.

“The burgeoning African MRO market is an obvious target for us,” admitted Luis Ortega, IFS managing director, Middle East, Africa and South Asia. He also

pointed out that fleet management and working on systems at some of the world's newest airports were also on the company's radar. “We have been working with Tibah Airports (a joint venture lead by TAV with its local partners Al Rajhi Holdings and Saudi Oger) of Turkey at the award-winning Madinah (Medina) Airport,” explained Ortega. The airport was awarded leadership in energy and environmental design (LEED) gold certification for the recent terminal expansion from the US Green Building Council (USGBC).

Ortega's fleet management point was quickly picked up by Graham Grose, IFS industry director for aerospace and defense.



Speaking about the company's new Tail Planning Optimization and Assignment solution, which has been implemented by Emirates Airline and was jointly launched in Gothenburg and at the Airline & Aerospace MRO & Flight Operations IT Conference in Bangkok, he said: “The solution maximizes fuel savings by reducing maintenance inefficiency through better allocation of aircraft to long-haul routes and assigning an aircraft for maintenance, within the maintenance window.

“It will play a key role in helping airlines achieve business goals and grow even further in what is an extremely competitive market.

“As a global leader in the aviation industry, IFS looks forward to continuing to work with airlines across the globe.”

He was speaking just hours after details of the Emirates support were unveiled in Gothenburg.

IFS has, admitted Ortega, recently been in discussions about its various products in many different African counties – although working on the continent is not always easy.

“I believe there are something like 360 different languages and dialects spoken throughout Africa,” said Ortega, who holds a masters in telecommunication engineering and has more than 20 years' experience in the Middle East IT sector.

“Government and industry stability is a key driver for us. We were looking to do business in Nigeria but there have been well-documented problems there recently. Now, however, countries like Kenya, Uganda, Rwanda, Malawi, Namibia and, of course, South Africa, all offer possibilities.”



“I believe there are something like 360 different languages and dialects spoken throughout Africa.”

LUIS ORTEGA

Lindi-Lee Kirkman (right), *International Air Transport Association (IATA) manager for safety and flight operations in Africa*, looks at the issue of unifying the continent's airspace to determine if it is a dream or reality.

Our moving target that is a single sky

The concept of having a single unified airspace is not one that is new. Indeed, this concept has been, or is in the process of being, implemented in numerous parts of the globe.

The most famous of these is the European single sky, where the national airspace of multiple states is designed, managed and regulated through a central body and decisions are made collaboratively to enhance the overall safety, efficiency and equity of the total aviation system without affecting the sovereignty of states.

This, too, is an objective for the African region, where high levels of disparity exist in the deployment of communication, navigation and surveillance equipment, and the provision of air traffic management (ATM), which has an undesirable effect on safety, efficiency and equitable service delivery to a growing aviation community.

There are currently various initiatives in the African region looking at creating regional upper-airspace control centres, with the aim of standardising air navigation regulations, standards, infrastructure and service provision across multiple flight information regions (FIRs).



A long-standing example of a single organisation managing about 16.1 million square kilometres of the region's airspace is ASECNA – the L'Agence pour la Sécurité de la Navigation Aérienne en Afrique et à Madagascar (Agency for Aerial Navigation Safety in Africa & Madagascar) – which covers 17 mostly francophone African states, and six FIRs, bringing consistency to ATM in its area of responsibility.

Work is also well under way towards the establishment of the southern African development community upper-airspace control centre (SADC UACC), where members will cooperate in the management of the airspace above flight level 245, which will be controlled from a single control centre.

The east African community (EAC) is also in the process of establishing a unified FIR (UFIR) covering Kenya, Uganda, Tanzania, Burundi and Rwanda.

The Indian Ocean strategic partnership to reduce emissions (INSPIRE) is a collaborative group of



High levels of disparity exist in the deployment of communication, navigation and surveillance equipment, and the provision of air traffic management (ATM), which has an undesirable effect on safety, efficiency and equitable service delivery to a growing aviation community.

participants across organisations, states and stakeholders, dedicated to improving the efficiency and sustainability of aviation in the Indian Ocean and Arabian Sea regions.

It is a shining example of how cooperation and collaboration can bring about tangible wins in operational efficiency for all phases of flight, from gate to gate and everything in-between.



The establishment of the user preferred routing (UPR) zone over the Indian Ocean, covering multiple FIRs, is another example of the collaboration of partners bringing about standardised ATM over the region.

In addition, the regional implementation of the International Civil Aviation Organization (ICAO) aviation system block upgrade (ASBU) will bring all states in line, not only with regional requirements, but also with global requirements, for performance-based communication, navigation, surveillance and service provision in the African region.

IATA is vigorously pursuing a unified African sky through active participation in numerous fora, such as the ASECNA technical panel, the COMESA USUA task force and the SADC civil aviation committee meetings. IATA is also collaborating with other stakeholders such as the Civil Air Navigation Services Organisation (CANSO), the International Civil Aviation Organization (ICAO) and the International Federation of Air Traffic Controllers' Associations (IFATCA) towards this goal.

Africa has the unified African sky in its cross hairs.

CANSO director-general, Jeff Poole, faces the press after telling the conference that some African nations needed to invest in their air traffic management infrastructure.

Collaboration between Africa's air traffic control authorities is growing but more needs to be done to encourage greater efficiency and quality of service, the 4th CANSO Africa conference heard.

Alan Dron reports.

CANSO CAN-DO – BUT WILL IT?

Ensuring safe and efficient airspace – separating regulation from service provision was the theme of the Civil Air Navigation Services Organisation (CANSO) conference, held in the Ghanaian capital, Accra.

CANSO is the global body that represents air navigation service providers (ANSPs), organisations that supply ANSPs with goods or services, plus aircraft operators and academic bodies with an interest in air navigation issues.

Director general, Jeff Poole, opened the conference by mentioning Africa's rapidly growing aviation sector, which, he said, had the ability to deliver real benefits in terms of connectivity, as well as social and economic development.

However, he noted that the air traffic management (ATM) sector on the continent still faced several challenges, including the need to improve staff training and development, separating regulation from service provision, and persuading African countries to invest in their ATM infrastructure.

On the plus side, Poole was able to report that CANSO members had signed the Africa ATM safety peer review initiative, which addresses safety issues. This, he said, was an example of partnership in action, with CANSO working with other ANSPs and the International Civil Aviation Organization (ICAO), the UN body charged with overseeing civil aviation, to put in place effective safety management systems.

Under the initiative, ANSPs will form teams to conduct peer reviews of each-other's safety management systems, with CANSO having a coordination role and providing expert guidance.



Fifi Kwetey: urgent need for strategic alliances.

An appeal for CANSO's stronger, more able, members to help some of their African colleagues came from Ghana's transport minister, Fifi Kwetey.

"In pursuit of CANSO's Vision 2020 towards a seamless air navigation services or a single sky, there's an urgent need for ANSPs to adopt the approach of the airline industry by fostering strategic alliances, value creation and cooperation," he said.

"I therefore urge CANSO and its more endowed members to help improve the operational efficiency of the weaker members. The global vision of seamless ATM has no place for any weak link. No country can be left behind, Africa cannot be left behind!"

Kwetey also called on the conference to identify measures that would improve the

provision of oversight for the continent's ANSPs.

"The ICAO universal safety oversight audit programme results for many African states revealed an extremely poor level of compliance in the area of air navigation services oversight. This is, indeed, very disturbing, as the presence of a strong and effective industry regulator will ensure safe and efficient ATM operations in our respective states and flight information regions.

"This forum should, therefore, identify the contributory factors and propose an action plan to address this deficiency. ICAO, CANSO, ANSPs and regulators have a collective responsibility to improve the level of effective implementation in the ANS audit area."

CANSO has, for some time, had an objective of separating the provision of air navigation services from the regulatory function. One of the main aims of this separation is to create greater financial and operational autonomy for the ANSP. This encourages a business-like approach to service delivery and improved quality of service.

Separating the provision of services from the regulatory process is also consistent with the principles of good corporate governance, as the regulatory aspect is seen as both independent and transparent.

Since the 1980s, many countries around the world have separated their air navigation services from their regulatory bodies. The reasons are varied: some countries have gone down the path of privatising government departments, others through making changes in other transport-related departments within their government.



Several speakers agreed that separation of service provision from regulation leads to efficiencies, better cost-effectiveness and less bureaucracy, as well as better access to financial resources.

However, the speakers – drawn from a mix of ANSPs, CANSO and ICAO – cautioned that there was no “one size fits all” solution. Every country had to consider the individual circumstances that operated in their territory. They also suggested that separating functions was more important than separating the actual organisations.

Among the challenges involved in separating the functions were how to fund the two separate organisations; how to share assets and liabilities; lack of trust between the two bodies; and managing staff through the transition to the new system.

Another topic under discussion was the problem of airspace sovereignty.

This has become an issue in several regions around the world, notably in Europe and the Middle East, where states have been reluctant to move to larger, more efficient airspace blocks covering several countries. States have expressed fears that allowing air traffic controllers in neighbouring nations to control aircraft in their own airspace means giving up sovereignty.

This has often been used as a reason for not harmonising airspace over large areas.

Seamless, harmonised airspace is a key goal of the ATM industry, as it is often more efficient to have control of airspace based on the operational requirements of users, rather than on national borders.

ATM specialists have argued that countries

can delegate service provision to other parties, or several countries can join together to control regional airspace, without any loss of sovereignty. Similarly, CANSO’s position is that sovereignty is not incompatible with the delivery of cross-border ATM services.

Sovereignty problems can be exacerbated when airspace includes areas blocked off for military use. The answer, several speakers said, was close collaboration between military and civil air authorities.

As civil aviation grows, it requires more capacity and a more flexible use of national airspace. The collaboration necessary to allow civil and military controllers to work together can be hampered by factors such as volatile

security situations, conflicts or even commercial interests.

However, noted Colonel Osman Saafan, director, safety & security and military affairs at Germany’s DFS Deutsche Flugsicherung (German flight safety) organisation, it was possible to create such cooperation, even in the busiest airspace, if organisations were prepared to work together.

He pointed to the Functional Airspace Block Central Europe (FABEC), which involved collaboration between seven civilian and three military ANSPs in an area covering most of western Europe, some of the continent’s busiest airspace, which handles around 60% of the total air traffic there.

It’s the start of the peer show...

CANSO members have signed a declaration to address critical safety issues in ATM.

The declaration on the Africa ATM safety peer review initiative commits ANSPs to form teams to conduct peer reviews of each-other’s safety management systems (SMS), with CANSO coordinating the initiative and providing guidance.

“Safety is our number one priority and this initiative is a significant milestone and a great example of partnership in action as ANSPs work with each other, as well as aviation industry partners, to implement effective SMS,” said CANSO director general Jeff Poole.

Participating ANSPs will form teams and visit each other to conduct peer reviews. They will evaluate the implementation of SMS based on the CANSO standard of excellence in safety management systems and other safety materials produced by CANSO and the ICAO – and identify specific areas for improvement.

The initiative will enable participating ANSPs to standardise the elements of their SMS, facilitating enhanced data analysis, safety risk management and performance measurement, which are key enablers for higher overall levels of safety performance.

The results will allow ANSPs to determine the maturity levels of their systems and communicate these to the satisfaction of ICAO and ANSP regulators, in turn reducing the need for regulator assessments and/or ICAO audits.

“All parts of the aviation industry are working hard to improve safety in Africa,” said Poole.

“This initiative will support continuous overall improvement in ATM and aviation safety in Africa in a consistent, measurable and sustainable manner. I am delighted that CANSO members in Africa have signed this declaration, and I urge all ANSPs in Africa to embrace the initiative and make Africa’s skies safer.”

Managing air traffic safely and securely is a critical part of successful command and control operations. Keith Mwanalushi speaks to Dennis Miller, from Harris Corporation, to learn about the significance of tactical air traffic systems for Africa.

Tactical planning a priority to achieve modern goals



Dennis Miller: "The 'tactical' element, adds the mobility component, allowing the radar system to be easily transported from one location to another."

Global interest in the African defence industry, particularly in South Africa, is growing. This is evident from the upsurge in international interest in the continent's defence industries, according to the organisers at the Africa Aerospace Defence exhibition (AAD).

During AAD 2016 in Pretoria, it was largely agreed that the development and supply of innovative products, in line with global trends, was the way forward for Africa.

Dennis Miller, director, business development, radar systems at Harris Corporation, said airspace authorities worldwide were calling on his company for tactical air traffic management (ATM) and precision-approach radar systems to support operations, both at large, established airbases and at smaller, tactical airfields, where mobility was a priority.



"Harris provides full radar-approach control capabilities, including primary and secondary surveillance and precision-approach radars, to address the full spectrum of customer needs," said Miller. "These include long and short-range ATM for fixed-site, transportable and mobile tactical air operations."

When comparing tactical air systems and commercial ATM solutions, Miller stressed that the two are, in fact, very similar. "Harris radars for military airfield operations are applicable to an airport or aerodrome environment. The key distinction is the 'tactical' element, which adds the mobility component, allowing the radar system to be easily transported from one location to another."

Miller said the mobility aspect was something Harris specialised in and was a key discriminator from other air traffic solutions. The suite of Harris capabilities covers the full range of operational scenarios and provides the capabilities required to ensure the management of airspace around airbases, airports and airfields, even in the most challenging weather and low visibility conditions, he added.

The key attribute of these ATM systems is that they can be used for varied critical missions to control,

for instance, trafficking, smuggling and poaching, as well as air defence and aid following natural disasters.

Poaching, in particular, is real problem. Conservation figures show that, in 2007, poachers killed 13 rhinos. By 2013, the annual death toll had reached a staggering 1,000, and they are now killed at a rate of about three per day.

Many of the tactical air traffic systems in sub-Saharan Africa have been in service since the 1980s and are no longer capable of meeting the demands of modern militaries, particularly when it comes to ensuring safety and continuity of operations during missions and in extreme conditions.

"Our current focus is on South Africa but we strongly believe this focus will directly benefit other African nations," Miller stated.

With that said, he recommended solutions that are directly in line with the South African Air Force (SAAF) stated missions, which include air traffic control services, air defence, and surveillance. "Harris is able to meet these critical mission operations with a combination of radar solutions," he said.

Some of those solutions include tactical air surveillance radar (TASR), ground control approach/precision-approach radar and primary and secondary surveillance radar, as well as S-3D medium and long-range 3D surveillance radar.

African States face considerable challenges when maintaining aerial situational awareness. Miller believes South Africa plays a key role in generating interest in future development. South Africa is looking to increase multinational operations and provide opportunities for joint military exercises that will contribute to social and economic growth, as well as stability in the region.

"Their interests [Africa countries] are consistently under attack," said Miller. "Aerial situational awareness will assist in protecting these interests."

"In addition to hostile threats, there is also the challenge of ensuring freedom of airspace navigation and being able to provide humanitarian aid or assistance when necessary. Air traffic management and air defence play a key role in overcoming these challenges."



Military air traffic control-radar by Harris.



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Girma Wake asked about profits, government interference – and stability of management.

Open the skies, and close the door on interference

The African Airlines Association (AFRAA) held its 48th annual general assembly in Victoria Falls, Zimbabwe.
Alan Peaford
reports.

There is nothing wrong with governments owning airlines – but it is totally wrong for governments to manage airlines.

That was a clear message to come from the 48th AFRAA general assembly held at the Elephant Hills Hotel in Victoria Falls, Zimbabwe.

Indeed, government and political intervention was the elephant in the room for much of the meeting until the door was firmly opened wide by former Ethiopian Airlines CEO and now chairman of Rwandair, Girma Wake.

In an electric panel session with airline leaders, Wake asked about profits, government interference – and stability of management. Only two airlines had had the same CEO for more than two years ... and within 48 hours of the Assembly ending, that had been whittled down to one, with the announcement that Kenya Airways chief executive, Mbuvi Ngunze would resign and step down early in the new year.

Wake said there were still too many instances of African governments welcoming non-African airlines and not offering the same opportunities to African carriers.

This along with high taxation, ridiculous airport charges and restrictive visa regulations were holding back African airline growth.

But not allowing airline leaders to lead their airlines was at the core of failure to growth. “One airline has had five CEOs in five years and a new plan is imposed before the ink on the last one has dried,” one panellist said. “We have to be able to plan, plan, plan – and then execute that plan.”

South African Airlines acting general manager commercial, Aaron Munetsi said “It starts with the CEO. If he is not in control then the airline can never succeed. It has to have a vision to grow – not with a flowery plan but with a concrete one.”

There was consensus that cooperation and consolidation would aid Africa’s air transport industry. “It is not necessary for every country to have a national carrier,” the panel concluded.

At the heart of all debate and discussion was the need for open skies and there was a muted hope that 2017 would finally see breakthrough in the adoption of YD.

Various keynote speakers urged African governments to facilitate the sustainable development of the aviation industry, as well as recognise and appreciate the critical social and economic value of the industry.

Dr Jorum Gumbo, the Zimbabwe Minister for Transport and Infrastructure Development, in the opening address said the aviation sector is critical to the continent’s development efforts.

Dr Elijah Chingosho, the AFRAA secretary-general called on governments to open up skies to ease cost of operation and facilitate the growth of the industry on the continent. According to Chingosho, this will help boost connectivity and enhance intra-Africa trade and, therefore, help foster sustainable development on the continent.

“The move will spur the development of African aviation which currently accounts for less than 3 per cent of global traffic,” he said.

“African governments should, therefore, remove non-physical bottlenecks to the movement of people and goods, such as restrictive visa regimes and tedious customs clearance procedures,” he said.

He said there is also need for policies that will help reduce the high industry costs, protect the continent’s rich bio-diversity, as well as promote infrastructure development to cope with the growing needs of the airline industry and the realisation of a single African air transport market over the next few years.

Industry faces new threat of protectionism

The Arab Air Carriers Organisation, representing airlines across North Africa's Arab League airlines, met in Casablanca.

Carriers from across North Africa gathered in Casablanca, Morocco, for the annual meeting of the Arab Air Carriers' Organization (AACO) at the end of November. AACO secretary-general, Abdul Wahab Teffaha, noted that the last time the group had gathered in Casablanca, in 1996, Arab carriers flew just 6% of international airline passengers, with a fleet of around 400 aircraft. Two decades on, those figures had jumped to 14.3% and more than 1,200 aircraft.

While the Arab air transport market grew by 5.3% in 2015 compared to 2014, reaching 258 million passengers, Teffaha expressed concerns that the re-appearance of protectionism could have an adverse effect on the future of the organisation's member airlines.

He reflected that, in the days before liberalisation, which initially took off in the US in the 1980s, "airlines and governments agreed on everything. They agreed on seats; they agreed on the tariffs for those seats, the distance between those seats and the food on the 'plane'".

National carriers were shielded from the stresses of competition. "Despite this, they registered a great loss, but governments had to bear this because they considered it important for the economy."



A variety of protectionist practices also severely limited consumer choice and artificially boosted prices, which were, in real terms, three times more expensive than today, said Teffaha.

Liberalisation had opened up the marketplace, initially in the US and Europe, developments that led to global passenger numbers rising from 700 million annually before deregulation to more than three billion today, he said.

However, the recent reappearance of calls for protectionism was "one of the big threats to this industry" and represented a risk to job opportunities.

President-elect Donald Trump has called for greater protection for US workers' jobs against what some in the US perceive as unfair foreign competition in a variety of industries. In the past few weeks, some US airlines have renewed their calls for action to be taken against the Gulf 'big three' airlines, Emirates, Etihad and Qatar Airlines, apparently confident that they have more chance of receiving a sympathetic hearing from the future president than his outgoing predecessor, President Obama.

International Air Transport Association director-general and CEO, Alexandre de Juniac, told the annual meeting he "fully agreed" that risks to the industry existed due to the re-



Abdul Wahab Teffaha: the recent reappearance of calls for protectionism was "one of the big threats to this industry" and represented a risk to job opportunities.

emergence of protectionism in several areas worldwide.

He added that, despite the popular image in the US and Europe of Middle East carriers being seemingly unstoppable forces in the world airline industry, "In this region there are two growth realities. In the MENA region outside the Gulf, growth has been 2% to 3% annually over the past five years, below the global average." The Gulf carriers were growing at more than five times the MENA rate, he said.

He put the slow growth in areas such as North Africa down to several factors, including the decision of several nations to block the repatriation of funds to foreign carriers and also to political instability in the region.

Among other issues of concern, said de Juniac, was the risk of the privatisation of airports going wrong: "ironclad regulation" was needed to prevent such privatisation becoming an out-of-control monopoly.

A panel discussion on strategic issues facing the region's airline industry found three company chief executives listing what they regarded as the single greatest problems they face: "Political instability everywhere in the world," said Royal Air Maroc boss Abdelhamid Addou. Such instability meant a "huge hit on sales" due to the decline of tourism.

For Qatar Airways Group CEO, Akbar Al Baker, the main risk was protectionism: "We are expanding airlines and we need market access." Picking up on that point and the risk of protectionism diminishing markets, Addou added: "I'd rather have 40% of a large cake than 100% of a small one."

For Air Arabia CEO, Adel Ali, those problems were compounded by more taxes on passengers and more airport charges: "Those two things are driving the industry nuts," he said.

Airport charges that rose 20 to 25% year-on-year were not sustainable and when taxes and charges were more than the actual price of a passenger's ticket, "it becomes destructive to the business".

AVIATION AFRICA MOVES TO KIGALI, RWANDA FOR 2017



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KIGALI AT THE HEART OF AVIATION

Aviation Africa will take place in Kigali, Rwanda on February 22-23 with open doors to the whole of the aviation/aerospace industry across the continent.

Alwyn James *reviews the event.*

There is something special about Rwanda, and Kigali in particular. Sitting at the very heart of the African continent, with a stable government and an educated and welcoming population it is no surprise that the country is being "discovered" as a place that is open for business and to do business. So it is no surprise perhaps that Aviation Africa – the all-Africa summit and exhibition for aviation and the aerospace sector – is heading for the Rwandan capital.

"This is the second edition of the event after it was launched in the UAE in 2015," said Tony Barigye, the Rwanda Civil Aviation Authority (RCAA) head of communications and public relations. The RCAA is in partnership with Times Aerospace for the show.

Mark Brown, managing director of Times Aerospace, explained: "We always wanted the event to be in Africa but when we were planning the launch there were too many places that were unable to guarantee easy visa access for industry professionals, and the high cost of travel within Africa, meant that it was easier and cheaper for the delegates to get to Dubai than to somewhere in Africa.

"In two years that has changed. Kigali has proved itself as an international hub for conferences and exhibitions, with organisations like Interpol and the African Union holding major events there. All African nationals can get a visa on entry as can people from many other countries. Rwandair and Ethiopian Airlines are

offering special deals for delegates flying to the event and so access is easy. We are really excited about making Kigali our base."

The event has full government support and HE Paul Kagame, the President of Rwanda will be opening the event. HE James Musoni, Minister of Infrastructure who is behind the new international airport project in Rwanda; Silas Udahemuka, Director-General Rwanda Civil Aviation; and Rwanda's Air Chief, Brigadier General Charles Karamba will all be speaking at the summit.



African Aerospace Editor-in-Chief Alan Peaford is chairing the summit. "There are key issues that will be debated and there are some great speakers coming from around the world, he said.

"We have had a fantastic response from African Airlines and as well as our official airlines Rwandair and Ethiopian have leaders from airlines including Congo, Air Djibouti, ASKY, TAAG Angola; SAA; Brussels Airlines; Air Zimbabwe and Nile Air as well as the main

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industry groups such as IATA led by Africa VP, Raphael Kuuchi ; The Airlines Association of Southern Africa led by its CEO Chris Zweigenthal; and others such as ACI and AFCAC.”

Business aviation is also well represented with AfBAA founding chairman Tarek Ragheb giving an address before opening a special pavilion for business aviation.

According to Brown there may also be aircraft on display at a special apron at Kigali Airport just a few minutes away from the new national convention centre where the event is being held.

“Ultimately we will be working with RCAA to develop this event into a full-blown airshow with aircraft and probably flying displays,” Brown said. “There is no true All-Africa event which caters to the whole of the aviation industry and we strongly believe that Kigali can do this.”

Barigye said RCAA expects major deals to be concluded during the summit, saying the country will be hosting the event while seeking investments in supportive activities, like logistics.

Some 50 exhibitors from across the supply



HE Paul Kagame, Rwanda’s president and a firm supporter of the aviation industry will open the Aviation Africa event in February.

chain will be there as well as official delegations from governments and civil aviation authorities, (invited by RCAA and the Rwandan government) will be attending.

Back at the summit there will be key subjects such as access to finance, Cape Town Convention, safety, innovation, technology, training and developing human capital all coming under the microscope. Recent development in the commercial use of drones being piloted in Rwanda will be detailed by Will Hetzler, CEO of Zipline. “There will also be a presentation by AVIC about the strategy China has for helping develop the African industry,” said Peaford.

“This is a real opportunity to get to meet the African airlines and business aviation operators; there will be bankers, consultants, MRO providers, OEMS as well as key government officials and there will be plenty of networking opportunities,” Brown added.

Aviation Africa takes place in Kigali February 22-23 with full details available at www.aviationafrica.aero.



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We also report on global aerospace developments that could impact operators, airlines or air forces in these regions and publish SHOW BUSINESS airshow dailies for events such as the Dubai Airshow, Bahrain International Airshow, Aero Expo Marrakech, MEBA and many other regional events, all supported by daily online news services.



An immaculate P-51D Mustang in a high speed flypast.



50/50 - BOTSWANA'S SILVER CELEBRATIONS

Botswana marked a double 50th celebration with a superb airshow.

Mark Mansfield reports from Gaborone and took the pictures.



The 'leap of faith' – an incredibly difficult task and a first for Botswana, Nigel Hopkins in his Extra 330SC passes low level as a stunt biker backflips over him.

Sir Seretse Khama International Airport, in Gaborone, was the venue for Botswana's first ever international airshow. It celebrated not only the country's 50th anniversary but also a half-century of aviation in Botswana.

To be exact, on September 30 1966, the Bechuanaland protectorate gained independence from Great Britain and the Republic of Botswana was formed.

The show was hosted by the Botswana Tourism Organisation.

The Botswana Defence Force (BDF) opened the show with a superb display.

Flying just about every type in its fleet, including the presidential jet – a Bombardier Global Express XRS flanked by two CF-5 fighter jets – the flag-bearers were two Bell 412 helicopters, four Pilatus PC7 Mk IIs, an Airbus Defence C235, as well as the Lockheed Martin C130.



This was then followed by an anti-poaching demonstration by the BDF and the Botswana Wildlife Service, which operates an extensive air wing of a newly acquired King Air 350, Quest Kodiak and Jabiru 430s.

A Bell 407GT from Rhino911 – a programme to declare war on rhino poachers – also showed off its capabilities.

International visitors from South Africa included the best of the South African airshow display teams.

Aerobatic displays included the Flying Lions Harvard Aerobatic Team, the newly formed Raptors Aerobatic Team in six of their RVs, the Goodyear Eagles Pitts Aerobatic Team, the jet formation made up of three L-39s and an Impala, and Cessna 210 formation.

Not to be outdone by the fixed-wing contingent, a Bell 407 had the large crowds on their feet in an adrenaline-



A team of skydivers formate in a '50' to celebrate 50 years of independence and 50 years of aviation in Botswana.

packed show between itself and two drifting cars, a first for Botswana.

Solo displays, and many 'first ever' displays were flown. These included a J3 Cub landing on top of a truck, a P51D Mustang, a Trojan T-28 and a Pilatus Glider.

The show-stopper had to be the 'leap of faith' act. This death-defying stunt saw Nigel Hopkins flying his Extra 330SC at very low-level between two sides of a ramp, while a motorcycle leapt over the aircraft with the bike rider doing a back flip in mid air.

In celebration of the anniversary, a team of skydivers put on a spectacular '50' formation display.

Closing the show was a night display flown by three of the Flying Lions in their Harvards.

Approbation royale pour l'écosystème de Boeing

Le roi du Maroc Mohammed VI a présidé à Tanger la cérémonie de signature d'un protocole d'accord pour la création d'un écosystème industriel de Boeing au Maroc. Un reportage de Vincent Chappard.



Protocole d'accord pour la création d'un écosystème de Boeing au Maroc.

Moulay Hafid Elalamy, ministre de l'industrie du Maroc, et Raymond L. Conner, PDG de Boeing Commercial Airplanes, ont signé en septembre dernier, un accord permettant la création d'un écosystème industriel de Boeing au Maroc.

L'objectif de cet accord est de développer un programme incitatif pour inciter de nouveaux fournisseurs Boeing à s'établir dans la zone industrielle spécialisée pour ses sous-traitants dans la région de Tanger. Selon le gouvernement marocain et la direction de Boeing, 120 sous-traitants et fournisseurs de Boeing devraient s'y installer.

Cet écosystème devrait générer un milliard de dollars de chiffre d'affaires supplémentaires à l'export et 8700 nouveaux emplois spécialisés.

« C'est un signal fort et une incitation aux 15000 sous-traitants et fournisseurs de Boeing », a déclaré à la presse

Moulay Hafid Elalamy. « Je souhaite leur dire que c'est au Maroc qu'il faut être pour gagner en compétitivité de manière durable. »

Il existe une histoire profonde entre l'Afrique et Boeing. Boeing revendique aujourd'hui plus de 70% de part de marché des avions de plus de 150 passagers sur le continent. La confiance s'est installée au fil des décennies.

La société Boeing est également présente au Maroc via MATIS Aerospace, une joint-venture créée en 2001, entre l'avionneur américain et Safran Electrical & Power. Elle est spécialisée dans les systèmes d'interconnexion de réseaux électriques pour le marché aéronautique. Elle produit plus de 110 000 câblages par an. Elle s'agrandit pour accompagner l'augmentation de charge de Boeing.

MATIS Aerospace lancera prochainement la production de harnais pour le moteur LEAP et des harnais électriques pour les avions de la famille Boeing 737, 777 et 787. Une autre collaboration au Maroc : en mars 2016, Boeing a confié à Ratier Figeac Maroc, la fabrication des actionneurs de compensation et des stabilisateurs horizontaux pour son nouveau B777X.

De nombreux équipementiers aéronautiques se sont implantés au début des années 2000 au Maroc dont Safran, Zodiac Aerospace, Daher. D'autres compagnies s'y sont ensuite installées à savoir Bombardier, UTC, Eaton, Alcoa, ou encore Latecoère. Depuis quelques années, plusieurs acteurs (Stelia Aerospace, Thales et Hexcel) développent d'importants projets industriels dans la zone franche aéronautique Midparc de Casablanca.

Cette stratégie s'inscrit dans le cadre du plan d'accélération industrielle du Maroc. La croissance du secteur marocain de l'aéronautique est un pilier de l'économie locale avec une croissance annuelle de 15%. Un chiffre multiplié par 6 en 10 ans.

Cet accord avec Boeing est similaire à celui établi il y a plusieurs années avec Renault pour le secteur automobile. « L'avionneur américain est une locomotive susceptible de constituer un écosystème de sous-traitants. »

Le Maroc souhaite encore et toujours s'affirmer comme une base aéronautique internationale crédible et compétitive à la porte de l'Europe.

SUMMARY

ROYAL APPROVAL FOR BOEING'S MOROCCAN ECOSYSTEM

Boeing's African links have been strengthened following the signing of an MoU creating an 'ecosystem' within the North African country's Tangier Industrial Zone.

Attended by Morocco's King Mohammed VI, the agreement was signed by the country's minister for industry, Moulay Hafid Elalamy, and Boeing Commercial Airplanes' CEO Ray Conner.

The MoU will develop an incentive programme to encourage new Boeing suppliers to set-up businesses in Tangier. It is hoped that around 120 subcontractors will become established there, generating more than US\$1-billion in additional export sales and 8,700 new skilled jobs.

"This is a strong signal and an incentive to Boeing's 15,000 subcontractors and

suppliers," said Elalamy, "emphasising the fact that Morocco is the place to be to gain sustainable competitiveness."

Boeing's current presence in Morocco includes MATIS Aerospace, a joint venture with French aerospace OEM Safran. It specialises in aerospace electrical network interconnection and produces more than 110,000 wiring looms each year.

MATIS is about to launch harness production for CFM's LEAP engine and electrical harnesses for Boeing's 737, 777 and 787 aircraft.

Morocco's existing collaboration with Boeing also includes Ratier Figeac Maroc manufacturing compensating actuators and horizontal stabilisers for the giant US airframer's new B777X wide-body airliner.



Ethiopian expands its in-flight catering centre

Ethiopian Airlines inaugurated its new \$20 million catering centre in Addis Ababa late last year. Kaleyesus Bekele reports.

As part of its 15-year growth plan, dubbed Vision 2025, Ethiopian Airlines established Ethiopian Catering as one of its seven strategic business units in 2011.

Built in the 1960s, the existing Ethiopian Catering facility, located in Addis Ababa, produced 36,000 meals daily. It provided fresh meals to Ethiopian, which operates 240 daily flights. It also served some international airlines flying to Addis Ababa, such as Turkish Airlines and Air China.

Ethiopian Catering also serves VIP, executive and charter flights services coming to Addis Ababa.

However, increasing demand required the construction of a new catering centre in Addis Ababa. Ethiopian has grown by 25% since 2005. It has opened many international destinations and acquired new fleet. This, by itself, has escalated the demand for an additional flight catering service. But the management also wants to aggressively work on a third-party catering business, looking after more airlines coming to Ethiopia and even branching out to other African countries.

Accordingly, the airline built a new \$20 million state-of-the-art catering centre, which

has the capacity to produce 100,000 meals daily. It covers 11,500sqm of land and was designed and built by Italian firm, Elmi Olindo.

The new G+1 facility encompasses modern operations and is fully equipped with high-tech cooking and bakery equipment, large capacity dish washing and heavy-duty ice-cube machines, hot kitchen, storage units, cold rooms, stores, flow wrapping, loading bays, high lift trucks and vans, varieties of cooling facilities, a dedicated Halal kitchen, as well as a number of modern rooms.



Inaugurating the new centre on October 29, Ethiopian Airlines Group CEO, Tewolde Gebremariam, said the airline was making massive investments in the infrastructure required to meet its fast growth. Maintenance hangars, a cargo terminal and a four-star hotel were some of the major on-going construction projects. The catering facility was part of this infrastructure development endeavour.

"We are preparing the airline with a very strong foundation for the 21st Century competitive landscape in the competitive global aviation business," Tewolde said.

He claimed the new facility was the biggest in-flight catering centre in Africa, adding that it would enable the airline to offer a large variety of menu meals on board Ethiopian flights, including Ethiopian national dishes, Chinese cuisines, Italian, Halal food, and all the varieties needed for the carrier's global customers.

"Our plan is to expand the catering business to other sister African countries. Immediate expansion will be to our west African hub in Lome, Togo, followed by our southern Africa hub, Malawi and the central African hub in the Democratic Republic of Congo (DRC) or in Congo Brazzaville," he said.

"So the aviation group is going to expand the hubs in all parts of the continent. At our heart, we are a pan-African airline. We have served Africa for the past 70 years at good and bad times."

Aklilu Habtu, in-flight catering director, said Turkish Airlines was Ethiopian Catering's largest customer. "We are also bidding to add more international airlines," he said.

Habtu revealed that Ethiopian Catering had started buying fresh produce from local farmers' cooperatives. "We are training them in the method of producing high-quality vegetables and



FAR LEFT: Ethiopian Airlines CEO Tewolde Gebremariam (right) cuts the ribbon for the new centre aided by Dr Mebratu Meles, the Ethiopian minister of industry.

CENTRE: Ethiopian dishes are at the heart of the new centre - the largest in Africa

ABOVE: Tewolde leads the inspection of the new facility.



Refuelling at Lagos.

NIGERIA'S FUEL CRISIS LEADS AIRLINES TO THE BRINK

Could there be light at the end of the tunnel for Nigeria's aviation fuel crisis? Chukwu Emeke investigates.

fruits. This has enabled us to offer organic foods to our passengers."

Italian national, Gaetano Cristiano, is MD of Ethiopian Catering. "We are, at the moment, producing 40,000-50,000 meals per day," he said. "We are mainly serving Ethiopian flights. But we also serve Turkish Airlines, Air China and VIP flights of the United Nations, African Union and other charters. We cater for presidential flights coming to Addis Ababa."

"We import some beef and chicken from South Africa, high-quality products from Europe and fish from Thailand."

Cristiano said he was happy with the quality of the organic fruits and vegetables that local farmers' cooperatives were supplying. "We need to increase the quantity. Securing the required quantity of the product with the required quality is always a challenge but we are working hard on that. But at the moment I am happy with the quality of the local fresh products supplied by the farmers."

He said the biggest challenge was satisfying customers' demands. "I want our customers to say 'Wow' every time they fly with us."

Under Vision 2025 the airline has set a target to generate \$50 million annually from its catering wing.

With the collapse in value of the Nigerian currency, added to foreign exchange challenges and other factors, importers have struggled in recent years to secure enough fuel for airlines.

Despite its position as one of the largest oil producers in Africa, Nigeria actually imports its aviation fuel. However, its high cost – a recent doubling in price – and scarcity has led to flight delays and cancellations and brought some airlines to their knees.

In some cases, airlines recorded estimated losses of \$1.6 million per day as fuel scarcity grounded at least two in every three flights nationwide.

While both local and foreign airlines have been affected, eight of the 35 airlines operating in Nigeria are indigenous to the region. They include Arik Air, Medview Airlines, Aero, Dana Air, Air Peace, First Nation Airways, Overland Airways and Azman Air.

Airlines are now spending up to 40% of operating cost on fuel, depending on the aircraft type, according to Nigerian Civil Aviation Authority (NCAA) director of airworthiness standards, Engineer Benedict Adeyileka.

Arik Air, the largest consumer of aviation fuel in Nigeria, operates more than 120 daily flights and its daily fuel requirement is about 500,000 litres. By implication, among local airlines, it has been the most affected.

Arik declared a loss of \$9 million within the first nine days of Jet A1 scarcity in April 2015. Within that month alone, the Aviation Passenger Service (APS), an online platform of the Aviation Ministry, indicated that all eight domestic airlines cancelled 2,840 flights.

During one of the crisis periods in 2016, Arik's spokesman, Adebajji Ola, said the airline was giving priority to its international flights and fuelled them ahead of domestic flights to prevent loss of market share to foreign airlines.

In August last year, Aero suspended its operations. First Nation Airways did the same, although it resumed operations two weeks later.

As the crisis lingered, foreign airlines operating into Nigeria had to devise different means of fuelling their aircraft and only made top ups on arrival in the country. British Airways, for instance, had to fuel aircraft in London and sometimes stopped in Malta.

At the 2016 International Air Transport Association (IATA) Forum held in Dubai, Emirates' president, Tim Clark,

complained that foreign airlines flying to Africa were refuelling abroad because jet fuel supplies had become more expensive and scarce in some of the countries. In September 2016, the airline, one of the biggest operating into Nigeria, started tanking fuel from Accra, Ghana.

In October, Emirates announced its plans to suspend its four times weekly service between Abuja, Nigeria and Dubai "to ensure the best utilisation of its aircraft fleet for its overall business objectives".

Some petroleum marketers have explained that scarcity of foreign exchange prevented them from shipping jet fuel to airports, forcing many airlines to cancel and delay many more flights than they normally did. They equally accused the Nigerian National Petroleum Corporation (NNPC) of neglecting Jet-A1 and concentrating only on the importation of Premium Motor Spirit (PMS).

□□□□□

Captain Nogie Meggiso, chairman of Airline Operators of Nigeria (AON), suggested that government should revive the Warri refinery's aviation turbine fuel (ATF) section. "This would help to reduce the operating costs of airlines and would generate sufficient income for the government through selling aviation fuel to foreign carriers operating into Nigeria or through West Africa," he said.

It appears his words have been heeded. Dr Ibe Kachikwu, Minister of State, Petroleum, pointed out that the petroleum sector had been privatised and that the production of Jet A1 was entirely in the hands of the private sector. However, he added that the Nigerian Government had been trying to work with them to address the situation.

He promised that Nigeria's refineries in Warri, Port Harcourt and Kaduna would soon begin production of aviation fuel in-country to make the product available, irrespective of the fact that the industry was deregulated.

His words followed up the pledge from Nigeria's President Muhammadu Buhari, in his 2016 Independence Day speech in October, who said: "We are to repair our four refineries so that Nigeria can produce most of our petrol requirements locally, pending the coming on stream of new refineries. That way, we will save 10 billion dollars yearly in importing fuel."



Opération aérienne d'Aviation Sans Frontières en Centrafrique.

Aviation Sans Frontières tire la sonnette d'alarme

Aviation Sans Frontières (ASF) alerte l'opinion publique face à la baisse des financements institutionnels. Si cette tendance se confirme, ASF ne volera plus. Vincent Chappard a rencontré Jean-Claude Cuisine-Etienne, le responsable des opérations aériennes d'ASF.

C'est ce qu'annonce l'ONG dans un communiqué en date du 29 juin 2016. Ses missions sont exclusivement réservées à l'humanitaire. Aviation Sans Frontières qui est « au cœur des problématiques du transport humanitaire » a lancé une campagne d'affichage en juillet dernier en guise de conscientisation.

« Notre préoccupation majeure c'est de continuer à mettre nos avions au service de l'humanitaire, de transporter des passagers et du fret en toute sécurité et dans les règles de l'art », souligne Jean-Claude Cuisine-Etienne. Aviation Sans Frontières espère avoir le soutien des bailleurs de fonds et des donateurs spécifiquement sur ce type de missions.



Car, un avion qui reste dans un hangar coûte cher. D'où, l'urgence d'avoir des financements surtout pendant les périodes de « vache maigre ». C'est ainsi que l'ONG pourra répondre aux appels des organisations humanitaires avec « efficacité » comme elle le fait à chaque mission.

Comme cela fut le cas au Centre Afrique. Aviation Sans Frontières a maintenu ses opérations humanitaires dans le pays pour sauver des vies alors que d'autres opérateurs avaient choisi de partir. « Les autorités ont reconnu notre fiabilité ».

En 2014 et 2015, Aviation Sans Frontières a



Xavier Girault et Jean-Claude Cuisine-Etienne.

enregistré une baisse d'environ 47% du financement des Missions Avions « traditionnellement assuré par l'ONU via le Programme Alimentaire Mondial et le Programme de développement ». L'ONG a cependant répondu aux appels d'environ 1000 partenaires en 2014.

Depuis 36 ans, les avions de l'ONG jouent pourtant un rôle vital en soutenant les actions des acteurs humanitaires engagés sur le terrain en Afrique. Ils transportent personnel, équipes de santé et aide d'urgence dans des zones difficiles d'accès ou dangereuses.

Les crises économiques, politiques et climatiques entraînent d'énormes problèmes en Afrique dont certains durent depuis des décennies. Les demandent humanitaires



augmentent et l'ONU n'arrive pas à aider tous les acteurs humanitaires. En 2015, seulement 55% des demandes ont pu être financées.

Les données géopolitiques ont changé. Les zones de guerre se sont élargies. Les financements iraient maintenant plus vers des régions en guerre comme la Syrie. Ce qui expliquerait en grande partie la baisse des dotations vers d'autres zones.



Ajouter à cela, « la concurrence réelle » venant des opérateurs privés qui offrent également des services commerciaux, ce qui rend l'accès aux financements plus difficile pour des ONG opérant uniquement dans l'humanitaire. Il en existe deux principalement en Afrique notamment l'opérateur américain Air Serv et ASF (France). Il existe aussi ASF (Belgique).

« Nous opérons avec un certificat de transporteur aérien dans le respect des règles et des obligations des Nations Unies. Nous ne faisons pas du business. C'est difficile d'être compétitif face aux opérateurs privés africains ».

Par ailleurs, les problèmes de sécurité qui se multiplient dans des régions minées par la guerre, le terrorisme ou des conflits tribaux ont des conséquences directes sur la pérennité des actions humanitaires sur le terrain. La sécurité est devenue un enjeu majeur.

Le nombre d'attaques contre les humanitaires a atteint son plus haut niveau en 2013 avec 264 attaques enregistrées. Le Secrétaire général des Nations Unies, Ban Ki-moon, a élaboré sur toute cette question lors du Sommet Humanitaire Mondial tenu à Istanbul en mai dernier.

« Trop souvent les professionnels de santé, les installations, les véhicules, les patients sont attaqués, les agents humanitaires tués et les convois pillés, ces actes entrant souvent dans une tactique de guerre », a-t-il affirmé.

De 2003 à 2015, l'ONU a enregistré une hausse spectaculaire de 550% des appels humanitaires mondiaux. Et, comme le fossé entre le budget et les besoins se creuse, les aides financières destinées aux ONG diminuent, mettant en péril les actions humanitaires sur le terrain.

Face à un manque d'infrastructures terrestres et des pays qui s'enlisent dans des conflits, « l'avion est le moyen le plus sûr d'atteindre les populations les plus isolées et les plus fragiles ».

Mais pour faire voler ces avions, il faut un budget. Sans l'aide institutionnelle, les activités des ONG comme Aviation Sans Frontières sont menacées. Les premières victimes seront malheureusement et une fois encore les populations déjà fragilisées.

Une situation qu'ASF veut éviter à tout prix pour poursuivre sa mission humanitaire en Afrique.

SUMMARY

ASF SOUNDS FUNDING ALARM

Aviation Sans Frontières (ASF) is hoping that the general public will respond positively to a funding crisis that could soon result in its African operation ceasing.

ASF's head of air operations, Jean-Claude Cuisine-Etienne, has launched a major poster campaign in the continent to raise public awareness of the financial shortfall.

He said: "Our major concern is to continue to utilise our humanitarian fleet of aircraft to transport passengers and cargo swiftly and safely but to do so we must have the support of donors, both large and small. Aircraft remaining in the hangar are costly and this is why there is such urgency."

During 2014 and 2015, ASF support reduced by around 47% as funding traditionally provided by the UN's World Food Programme was slashed thanks to urgent assistance being needed in other parts of the world. But, despite this, the NGO has still responded to more than 1,000 calls for aid by transporting staff, health teams and emergency equipment.

The International Civil Aviation Organization's carbon-offsetting scheme for international aviation received widespread praise when it was announced at the UN agency's 39th Assembly in October. Martin Rivers talks to ICAO president, Dr Olumuyiwa Benard Aliu, about what the accord means for African airlines and governments.

FLIGHTPATH TO GREENER SKIES

Four years after the European Union tried and failed to impose its emissions trading system (ETS) on the rest of the world, the International Civil Aviation Organisation (ICAO) has made good on its promise to deliver an alternative scheme for tackling cross-border pollution.

The carbon offsetting and reduction scheme for international aviation (CORSIA), finalised at ICAO's 39th Assembly in Montreal in October, commits the industry to an "aspirational goal" of carbon-neutral growth from 2020 onwards.

Unlike the ETS, which would have capped carbon emissions in real terms, CORSIA adopts a carbon-offsetting approach that mitigates higher emissions through investment in environmental projects approved by the United Nations (UN).

At the time of writing, 66 states, including America and China, had agreed to implement CORSIA during its voluntary phase, which runs from 2021 to 2026. These countries collectively account for 86.5% of cross-border revenue tonne kilometres (RTKs), buoying hopes that carbon-neutrality is, indeed, within reach.



While several aspects of the scheme have attracted criticism – non-participation by India, Brazil and Russia is one concern – most observers see it as a positive step towards environmental accountability. Taken alongside the 2015 Paris Agreement, which governs domestic flying emissions, there is a sense that airlines are acting decisively in the fight against global warming. As well they should. Since the 1970s, the industry has doubled in size roughly every 15 years. Failure to tackle its carbon footprint would have devastating consequences on the environment.

However, the burden of responsibility does not fall equally on the UN's 193 member states.

ICAO president, Dr Olumuyiwa Benard Aliu, acknowledged that African nations – which account for barely 3% of global air traffic – have less to answer for than developing and developed countries in other regions.

"That is why we have made provisions within

President's talking points

■ **On ICAO's efforts to foster geopolitical unity in the fight against climate change, Dr Aliu said: "We will find a way to find consensus and compromise among our member nations. Even though we have different circumstances, we always find a way to come together as a global body to reach agreement at a global level."**

"The fact that we already have over 80% [participation in CORSIA] is a very good thing. And we still have time to get more states to come on board."

■ **On the vulnerability of African aviation to terrorist incidents like Metrojet Flight 9268 and Daallo Airlines Flight 159, he said: "Nefarious actors find that it creates some gravitas for them if they are able to carry out something in the aviation sector. So we are always on our toes, reviewing any new possible threats and taking action."**

"Of course, when you have situations like those that you cited, we react very quickly to see how we can plug the holes. But it is also important in carrying out those actions to ensure that we do not stifle the industry, and that we balance security requirements with the proper facilitation of connectivity."

■ **On the stalled implementation of the 1999 Yamoussoukro Decision, which aims to liberalise African aviation markets: "Do we want to see these efforts ramped up more quickly? Yes. There is no doubt that by increasing the equitable participation of African states in global air transport, they would derive more socio-economic benefits."**

"That message is carried through any time I speak in the continent to decision makers and to heads of government. I always try to underscore this point. They are aware of it."

the scheme for small island developing states, for landlocked developing countries, and for least developed countries," said the ICAO chief, who took up his role in 2014 after completing eight years as the agency's Nigerian representative.

"At the end of the day, their participation in international aviation is not significant. Air transport is also important for their socio-economic development. But, having said that, we still continue to encourage these states to demonstrate political will and commitment to participate in this scheme, and we have started seeing such results. At least one African country has expressed its desire to participate [in CORSIA] from the beginning."



That early signatory, Kenya, has since been joined by two other African countries – Burkina Faso and Zambia. Dr Aliu believes others will sign up for the voluntary phase soon, despite the fact that CORSIA's post-2026 mandatory mechanism only applies to countries responsible for more than 0.5% of international RTKs as of 2018.

"States below 0.5% are exempt from the beginning, but we strongly encourage them to volunteer anyway," he explained. "Between now and 2018 a lot of things can happen. We may find some states that will go above 0.5%. This is the reason why the voluntary mechanism for those states below is so important."

African governments have few illusions about the need to tackle global warming. The intergovernmental panel on climate change (IPCC), the UN's dedicated scientific body for global warming, expects Africa to be the continent worst-affected by temperature rises this century, warming up to 1.5 times faster than the global average due to its equatorial geography. Extreme poverty and under-developed economies based on arable farming will worsen its exposure, leaving Africans reeling from inland droughts, coastal floods, malnutrition and water shortages.

Although forecasts are notoriously difficult to make, the IPCC estimates that there will be 5-8%



Aliu with the UNs Ban-Ki-moon at ICAO HQ in Montreal.

more arid and semi-arid land in Africa by 2080. This susceptibility alone might spur some African governments to join CORSIA. But, as Dr Aliu explained, the costs associated with the scheme's monitoring, reporting and verification (MRV) protocols have forced ICAO to lend a helping hand.

"A lot of our efforts are focused on training and capacity building," he noted, singling out the ICAO-EU joint assistance project, which is helping 14 mostly African countries develop carbon monitoring and mitigation processes. "We've asked many of our member states to submit action plans to address aviation emissions. Many of them have received training and support in this area, and one of the criteria to

[be eligible to] receive that assistance [is] if you volunteer to participate in CORSIA."

The joint assistance project – initiated in 2013 with a \$6.95 million budget – is now working towards implementation of 218 mitigation measures proposed by participating states in their action plans. The African countries involved in the scheme are Burkina Faso, Burundi, Cameroon, the Central African Republic, Chad, Congo Brazzaville, the Democratic Republic of the Congo, Equatorial Guinea, Gabon, Kenya, and Sao Tome and Principe.

While environmental protection was top of the agenda at ICAO's 39th Assembly, Dr Aliu was keen to highlight some of the other projects the

UN agency is pursuing under the banner of its 'no country left behind' (NCLB) campaign.

He cited three key initiatives: the comprehensive regional implementation plan for aviation safety in Africa (AFI), which tackles safety oversight deficiencies across the continent – still the deadliest in the world for civil aviation; the traveller identification programme (TRIP), which assists states with the uptake of biometric passports and machine-readable travel documents; and the human resources development fund (HRDF), which facilitates funding for infrastructure development in concert with the African Development Bank.



"The African region is supposed to enjoy more than 5% increase in traffic every year. That will require significant investment in airport and air navigation infrastructure," Dr Aliu noted. "And we want to be there to support these states, not only in assisting finance but also [providing] technical assistance to install the desired capacities at the airports and for the air navigation [service providers]."

Despite emphasising the ICAO's purposeful focus on Africa, the president brushed aside suggestions that the continent lags behind global standards – particularly when it comes to aviation safety and security.

"In every region you have states that are doing extremely well [and] you have some that are struggling – not because they do not have the political will, but because they need support," he insisted. "There is progressive realisation and awareness at the political level that only through the implementation of ICAO standards can states have access to the socio-economic benefits that air transport provides. Only through that can they participate equitably in international air transport."

Having been approved for a second term as president in 2016, Dr Aliu has another three years to steer the ICAO's relentless drive for compliance with global standards and recommended practices. Transforming CORSIA from vision into reality will be perhaps his biggest challenge.

Godfrey Gasana

Marcelle Nethersole speaks to the director of operations and training at Akagera Aviation.

1

■ Akagera Aviation specialises in helicopter solutions. Can you tell me more about this?

Akagera Aviation was founded and began operations in 2004 in Kigali with the arrival of the first three Robinson R44 helicopters. We are approved as an airline operations centre (AOC), an air traffic organisation (ATO), an approved maintenance organisation (AMO) and an approved Robinson R44 helicopter dealer and service centre in the region.

We offer a wide range of helicopter solutions, including aircraft maintenance for owned types, charter flights, helicopter pilot training, scenic flights, tourist transfers, regional flights, aerial photography, emergency medical evacuation services, game herding, and aerial surveys.

We fly mostly to Uganda, Tanzania, Burundi and Kenya.

2

■ What makes up your fleet?

Our fleet includes AW139, AW109 and R44II helicopters. The AW139 is VVIP-configured with deluxe seating for five people, while the AW109 is a six-seater with an emergency medical evacuation (EME) option. The R44s are mainly used for basic pilot training but do charters, aerial photography, scenic flights and game herding.



3

■ Who are your customers?

Our customers include tourists requiring quick transfers, business people, those in need of emergency medical evacuation, government agencies but also individuals requiring leisure flights.

As Rwanda continues its remarkable development, a lot more people/tourists are interested in experiencing the unique landscapes, culture, mountain gorillas, birding etc.

Tourist numbers coming into Rwanda show a steady growth and this translates into more interest in helicopter tours. Someone on a helicopter can see a lot more than on a land tour.

4

■ What are your popular trips for tourists and business customers?

Tourists, as well as business people, travelling to areas with no airports usually use our service.

Tourists usually want to fly to the north west, where they go for mountain gorilla trekking in the volcano mountains, south west to visit the Nyungwe National Park, or to the east of Rwanda to tour the Akagera National Park.

Business people fly all around the country.

5

■ What pilot training do you offer and do you see an increase of interest in the region?

At the moment we offer private pilot licence (PPL) and commercial pilot licence (CPL) helicopter pilot training. Courses include instrument rating (IR) and night rating.

Yes, we are getting a lot more inquiries, not only from the region but also from the rest of Africa. We are the only helicopter pilot training organisation in the region.

6

■ What is next for Akagera Aviation?

We aspire to become a centre of excellence in aviation within the region and beyond by providing quality aviation services, training (helicopter/ fixed-wing pilots), aircraft maintenance courses, and other aviation-related courses.

7

■ What does a typical day involve as director of operations?

To begin with I liaise with maintenance to make sure the helicopters are serviceable and airworthy.

I also get an update from commercial about how many flights have been confirmed for the day. Then I speak to the pilots to allocate flights and ensure our customers are flown to their destinations in a timely and safe manner.

After that, I communicate with the other departments to make plans for future operations. Then I may fly or attend meetings with other management team members as and when required.

“As Rwanda continues its remarkable development, a lot more people/tourists are interested in experiencing the unique landscapes, culture, mountain gorillas, birding...”



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