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HOW AFRICAN AIRPORTS ARE
CLIMBING THE SAFETY LADDER

– SEE PAGE 62

AIR TRANSPORT

Electronics
bans
frustrates
IATA

PAGE 18



DEFENCE

Trump
increases
support in
East Africa

PAGE 48



SECURITY

Key ways to
tackle the
increased
cyber threat

PAGE 92





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Defending the business of freedom

The director general of the International Air Transport Association (IATA), Alexandre de Juniac, coined the phrase “the business of freedom” to describe aviation and its role in the globalisation of society as he opened the 73rd annual meeting in Cancun, Mexico in June.

But any freedom has a price and, at the moment, aviation is suffering.

At the heart of it all is the issue of security.

We all know the freedom that is at the core of aviation remains a target for terrorists – people intent on destroying that freedom. De Juniac stressed that information sharing between governments and within the industry was the key to staying a step ahead of emerging threats. But, often, governments don’t listen to the very people who have the operational experience to help develop solutions that work.

De Juniac said working solutions were vital to airlines. “Keeping our passengers and crew safe and secure is our top priority. While that creates a natural partnership with governments on security, the relationship is showing cracks,” he said.

The case in point is the ban on personal electronic devices in the cabins on flights to the UK or US from some North African and Middle Eastern airports.

“There was no consultation with industry and little time to implement the change. The action caught everybody by surprise. It was a big challenge for airlines to comply and a huge inconvenience to our customers. It



should not be that way,” de Juniac said. There are obvious disconnects between the perceived threat in the US and the UK – they do not agree on the risk areas – and other major countries are mitigating the threat without a ban.

IATA is estimating the current ban has cost \$180 million in lost productivity so far.

There are solutions. Technology exists and it should be possible to accelerate innovation and improve screening techniques across Africa and the world.

There must be consistency, and support for the International Civil Aviation Organization (ICAO) efforts to establish a global aviation security plan (GASep) would lay the groundwork for more effective information-sharing among states and with the industry – the key to addressing current and future threats.

Threats are not only from explosives. There is a great danger from cyber attacks, too. I met with the Minister of Aviation from Egypt, Sherif Fathi Attia, recently (see page 93). Cyber security was high on his list of things that can keep you awake at night. We agreed that it would be a key topic at the next Aviation Africa summit, which will take place in Cairo on April 17-18.

I am delighted to have been asked to act as chairman for that event and hope that, together, we might fight the attacks on our business of freedom.

Safe landings

Alan Peaford, Editor-in-Chief

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COVER: ACI Africa secretary general Ali Tounsi. PICTURE: MHIC CHAMBERS, BILLYPIX

Advertisers

Abyssinian Flight Services	91
AFBAA - African Business Aviation Association	60
Airbus	2, 3
Ameco	98
Astral Aviation Ltd	70
Aviaco GSE	62
Aviation Africa 2018	79
AviMall	56
Bahrain International Airshow 2018	97
Bestfly Flight Support	102
Bombardier Commercial Aircraft	46
CAA International	15
CAASA	85
CFM International	4
DAS Handling Ltd	37
Dassault Falcon	59
Dubai Airshow 2017	102
Dubai International Air Chiefs Conference 2017	46
Embraer Commercial Jets	15
Ethiopian MRO Services	85
FlightPath International	4
Global Aerospace Summit 2018	39
Gulfstream	8
Hahn Air	87
Leonardo	49
Lufthansa Technik AG	25
MEBAA Show Morocco 2017	100

MH Aviation Services	11
NEXUS Flight Operations Services	6, 7
Rolls-Royce	40
Safat Aviation Complex	0BC
Solenta Aviation	73
South African Airways Technical (SOC) Ltd	21
Spectrum Aeromed	57
Spidertracks	33
SuperJet International	27
TCR	65
The Boeing Company	16, 17
TP Aerospace	76
Turkish Aviation Academy	28, 29
Universal Weather and Aviation, Inc.	54
Wyvern Ltd	12



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09 **business brief**

Round up of the news across the continent.

AIR TRANSPORT

18 IATA AGM

The world's top airlines meet in Cancun.

22 Niger Airlines stands the heat

Niger Airlines targets accomplishment of purpose and profit after its third year of operations.

« Niger Airlines sur le point de générer des profits après sa troisième année d'opération. »

24 Air Mauritius celebrates

The airline celebrates its half-century in operation and looks ahead.

« La compagnie aérienne célèbre ses 50 ans et se projette dans le futur. »

30 Corsair on course

Corsair International outlines its expansion plans.

« Corsair International présente son plan d'expansion. »

32 ART and craft

Chadian start-up FlyART is planning to launch scheduled operations from this year.

34 Areas of conflict?

African countries could be affected by the EU's new joined up approach to conflict zone assessment.

« Les pays africains pourraient être affectés par la nouvelle approche de l'UE pour évaluer des zones de conflit. »

38 Freight expectation

Things are improving fast in Nigeria's airfreight market but there is still a long way to go.

41 Drone rangers

UAVs could be the ideal answer to the challenges of moving freight.

« Les UAV, une réponse idéale face aux défis du fret. »

44 Ships in the sky

The latest generation of airship is back in the air and Africa is a target region.

DEFENCE

47 Paramount picture

As Paramount starts production of its AHRILAC, attention is switching to the militarised Mwari.

48 USA supports AU in Somalia

US is entering a new chapter in its support and interventions in East Africa.

50 Senegal strengthens

The Senegalese military still has a number of outstanding modernisation requirements.

52 Round up

Industry updates across the region.



P101

BUSINESS & GENERAL AVIATION

55 EBACE: opening up Africa

A review of the business aviation show in Geneva.

58 Fighting AIDS from the air

Malawi drones are helping to fight AIDS.

« Les drones contribuent à la lutte contre le sida au Malawi. »

61 UAV regulations in Nigeria

Interest in the civil and military use of drones in Nigeria increases.

AIRPORTS

COVER STORY

62 A healthy leap forward

ACI Africa secretary general, Ali Tounsi, explains the new programme helping airports raise their game.

66 Falls on the up

Upgraded Victoria Falls International Airport in Zimbabwe begins attracting major airlines.

68 Zambia at the gateway

We report on the progress of developments at the Kenneth Kaunda International Airport.

70 Please re-lease me...

Belgian company TCR specialising in second hand GSE targets 'growing' Africa.

71 The legend of Wilson Airport

Nairobi's historic airport is still playing a major role for Kenya.

74 Hopes and fears

Zambia hosted the ACI Africa conference with calls for developing African airport business.

« La Zambie a accueilli la conférence ACI Africa qui appelle au développement des activités aéroportuaires. »

MANUFACTURING

77 Airbus targets

Airbus intends to double its annual commercial airliner sales in Africa.

« Airbus souhaite doubler son chiffre d'affaires en Afrique. »

80 Fan-tastic future

Pratt & Whitney Canada explain why it is gearing up for a major effort across the region.

« Pratt & Whitney Canada explique les raisons de ses grandes manœuvres en Afrique. »

82 Plane talking

Why Bombardier is changing focus.

« Pourquoi Bombardier modifie sa démarche. »

TRAINING

86 Short staffed...

The African airline industry is facing a critical shortage of well-trained aviation professionals.

88 Home grown

Ethiopia is developing its human capital with the growth of its Aviation Academy.

90 Maintaining a future

Tunisair Technics plans ahead with a new MRO training centre at Tunis-Carthage Airport.

« Tunisair Technics inaugure un nouveau centre de formation MRO à l'aéroport Tunis-Carthage. »

SAFETY & SECURITY

92 Cyber caution

What precautions can African airlines take to fend off the cyber threat?

95 ICAO safety call

The drive to improve safety standards throughout the continent.

« La volonté d'améliorer les normes de sécurité à travers le continent. »

EVENTS

99 Aviation Africa heads for Cairo

Egypt welcomes the premier event.

« L'Égypte accueille ce grand événement. »

101 SAAF air power on show

SAAF shows off capability.

103 Watching out for the old timers

The South African Air Force Museum display.

PEOPLE

104 All in a day

Neil Fraser of Spectrum Aviation.



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ETIHAD CARGO AIDS RWANDA BLACK RHINO RETURN

Intradco, the conservation non-profit organisation that manages national parks and protected areas on behalf of governments across Africa, chartered two Etihad Boeing 777 freighters in May to transport 19 black rhinos from Johannesburg to Kigali ahead of their settlement at Akagera National Park.

Jes Gruner, Akagera Park manager, said: "Together with the Rwanda Development Board and the Howard G Buffett Foundation, we have spent the last three years preparing for this historic event, ensuring that the park is safe for the arrival of the rhinos and for their long-term future so they can breed and thrive."

Two killed in Libyan crash

Two pilots were killed in May when a Libyan National Army (LNA) air force SIAI-Marchetti SF.260 crashed while conducting a surveillance patrol of the Libya-Sudan border.

In a statement, the LNA said the SF.260 from the Al-Kufra Air Base lost contact with air traffic control while it was combing the south-eastern border following intelligence reports that armed men, driving in a convoy, had entered Libya from Sudan.

Code-share's magnificent seven

EgyptAir and Kenya Airways have launched a new code-share partnership, initially covering seven international routes.

"As a member of the African Airlines Association (AFRAA) since 1968, EgyptAir has

initiated the partnership with Kenya Airways as a foundation for future commercial operational opportunities between both airlines," said Safwat Musallam, chairman & CEO, EgyptAir Holding.

Air Namibia in SuperJets talks

Air Namibia is in talks with Sukhoi Civil Aircraft over the proposed acquisition of three SSJ 100-95s. The deal may also include assistance in the areas of aircraft maintenance, pilot training, and infrastructural development.

Maintaining excellence

AJW Technique has signed a component MRO contract with Tunisair Technics for the support of its mixed Airbus and Boeing fleet.

The agreement covers more than 300 part numbers and ensures that quality repairs will enable

the airline to continue to fly safely and on time.

Imed Mhiri, general manager at Tunisair Technics, said: "Trusting AJW Technique with a large portion of our maintenance requirement will be of significant benefit. It will facilitate progression in terms of operation, as well as commercially, when considering our total fleet cost."

Towering achievement

Italian airport solutions company, ENAV, has delivered the first of two air traffic control towers that will be installed at the Mitiga Airport in Libya as part of an on-going infrastructure revamp project.

ENAV will train several Libyan air traffic controllers, who will operate the towers. The company will also train technical crews for maintenance and servicing.



Uganda carrier revival plan a step closer

The President of Uganda, Yoweri Museveni, has held a meeting with Airbus representative, Patrice Bauebo, with a view to reviving the country's flag-carrier airline.

Earlier this year, the country's cabinet passed a resolution to revive the defunct Uganda Airlines.

During the meeting, at State House, Entebbe, the president said: "I am convinced that a Uganda airline will succeed mainly because of six factors – Ugandans in the diaspora, the Indian community, businessmen, tourists, regional traffic and internal travel."

Bauebo urged the government to develop the Soroti Flying School, saying it was greatly linked to the airport industry through training of pilots, engineers and other aviation related jobs.

"What makes the success of an airline market is the feeder market. You need nationals flying within Uganda and not only abroad," he said.

Fastjet losses double

African low-cost carrier, Fastjet, has seen losses almost double in what CEO Nico Bezuidenhout described as “a challenging year”.

Bezuidenhout has been leading a restructuring following a disastrous period of rapid expansion – that restructuring is still under way, the company said.

It has a four-point plan to make the turnaround: major cost reductions; fleet transition to smaller aircraft; head office relocation to Johannesburg; and revenue initiatives including route rationalisation.

In its full-year results for 2016, the company said losses before tax soared from \$21.6 million to \$47.9 million, as costs increased by 29% caused by increased capacity and start-up losses on new routes.

Fastjet appoints Bosc as CCO

Fastjet has appointed Sylvain Bosc as its new chief commercial officer. He previously worked at South African Airways.

“There has been a marked stimulation of tourism and trade growth in markets where Fastjet operates,” said Bosc. “Typically, aviation fulfils a significant role in the development of these two sectors, as well as empowering the public who have not had the opportunity to fly before. I look forward to Fastjet partnering with relevant authorities, governments and private industry to further fuel growth on the continent.”

Bestfly retains ISBAO status

Angola-based aviation services company, Bestfly, has retained its International Standard for Business Aviation



Veling in Emirates A380 deal

Veling, the aircraft leasing company headquartered in Mauritius, purchased a new Airbus A380 in May and leased it back to Emirates Airline.

“It is indeed an honour to partner with Emirates Airline and close a lease agreement for our first A380,” said Veling co-founders

Uday Nayak and Nirvan Veerasamy. “For our team at Veling, this deal is testament to our commitment and value propositions, which we have adhered to since our inception in 2002. Veling has grown into a valuable partner for airlines in a highly competitive international aircraft leasing market.”

Operators (ISBAO) status for the second year in a row.

“We are very proud to have achieved this important recognition again as we continually work hard to meet international expectations,” said Bestfly MD Nuno Pereira.

“It’s been a challenging couple of years for business aviation with the fluctuating oil prices affecting everyone.

However, we have seen this as a time to improve our standards across the board, as well as keep training our staff and improving what we can do for our international clients.”

SAA finance chief

South African Airways has appointed Phumeza Nhantsi as its new chief financial officer.

Nhantsi had been acting interim CFO since November 2015.



Space agencies strengthen ties

The UAE Space Agency and the Algerian Space Agency have signed a memorandum of understanding (MoU) covering various aspects of the peaceful use of outer space, as well as collaboration in the fields of policy-making, regulations, space science, technology, and human capital development.

Dr Mohamed Al Ahababi, director general of the UAE Space Agency, and Dr Azzedine Oussedik, director general of the Algerian Space Agency, signed the MoU at the Algerian Ministry of Foreign Affairs.

Abdelkader Messahel, Algerian Minister for Maghreb, African Union and Arab League Affairs, and Dr Khalifa Al Romaihi, chairman of the UAE Space Agency, attended the signing.

Cash boost for Arik Air

Arik Air has received an injection of \$4.7 million from the Asset Management Corporation of Nigeria (AMCON) since being taken over by the state-owned body.

AMCON took over management of the airline in February after concerns that the business was failing.

CEO Roy Ilegbodu said that when AMCON took over, it had paid out between \$188,000 and \$236,000 in customer refunds per week.

“It was quite interesting and disturbing for an airline with 30 aircraft on its books to have only 10 that were functional,” said Ilegbodu.

Entebbe upgrades radar

Entebbe Airport’s radar system has been upgraded to become ADS-B capable so it can use next generation systems, including data links.

The Uganda Civil Aviation Authority said the upgrade had raised the safety net from level four to “more than ten”.

Mango ripe to upgrade

The CEO of Mango Airlines has said that the airline will look at renewing its fleet as its current leases expire beginning in 2020. Mango will either stick with newer versions of the B737-800, or consider entirely new aircraft.

Safety warning grounds Air 26

Angola’s civil aviation authority (Instituto Nacional da Aviação Civil - INAVIC) has grounded local operator Air 26 until further notice, citing several safety oversight anomalies.

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Visas-on-arrival stopped by Libya

The Libyan Passport Control Office has scrapped the issuing of visas-on-arrival to Egyptian, Moroccan, Sudanese, Syrian and Bangladeshi citizens at the Mitiga International Airport.

In a letter copied to Libyan Airlines, Afriqiyah Airways, Libyan Wings, Med-avia and Buraq, Mitiga Passport Control head, Mustafa Buazza, said any airline that flew restricted nationalities into Libya without a visa would be held responsible for returning them to their countries of origin.

No reasons were given for the restrictions or why the five nationalities were targeted.

RwandAir makes London debut

London Gatwick welcomed the touchdown of the first direct flight between Rwanda and the UK on May 26 with a water arch as the aircraft taxied to the gate at the airport's north terminal.

The arrival of the aircraft was attended by the UK High Commissioner of Rwanda, HE Yamina Karitanyi; the deputy CEO of RwandAir, Yvonne Makolo; and Stephen King, head of airline relations, Gatwick Airport.

The route is served by a new Airbus A330-300, offering travellers business, premium economy and economy class travel.

Ethiopian signs with Air Europa

Ethiopian Airlines has agreed a partnership with Air Europa, described as a free sale codeshare agreement, which allows the partner airlines access to each other's network by creating easy connections at their respective hubs.

Busera Awel, chief



Air Mauritius A350 taking shape

Production of the first A350 XWB for Air Mauritius is advancing well at Airbus' final assembly line in Toulouse, France.

Next steps will include cabin completion, engine installation, painting and flight tests. This will lead to the delivery of the first A350-

900 to the airline, which is scheduled for the fourth quarter of this year.

Air Mauritius will acquire a total of six A350-900 twin-engine wide-bodies comprising four directly purchased from Airbus and two on lease from AerCap.



Contract wins for EgyptAir Maintenance & Engineering

EgyptAir Maintenance and Engineering has won a contract with Air Zimbabwe to carry out heavy maintenance tasks for one of its Boeing B737-800 aircraft.

It has also won a contract with Afghani carrier, Kam Air, to provide overhaul services for its Airbus A340.

EgyptAir Maintenance and Engineering chairman, Abou Taleb Tawfik, said: "International accreditations are the basis of providing technical service to the third-party customers and help bring more contracts with new customers domestically and internationally."

commercial officer Ethiopian Airlines, said: "As a customer-focused airline, we always strive to meet our customer's ever growing demands by availing critical connectivity options. This strategic collaboration will enable our customers to reach multiple destinations in Europe through one point check-in at point of origin."

George to receive larger aircraft

George Airport in the Western Cape has received an exemption from the South Africa Civil Aviation Authority to upgrade from a CAT 7 aerodrome to a CAT 8. The regional airport is now able to receive larger aircraft as it complies with regulations for additional aircraft rescue, as well as

fire-fighting personnel with sufficient fire tenders for the category upgrade.

Mikosz is new Kenya Airways CEO

Sebastian Mikosz was named as the new CEO for Kenya Airways in May following a six-month search to replace Mbuvi Ngunze, who resigned in November. Mikosz was CEO at Polish flag-carrier LOT for two years until August 2015. He has more than 20 years' experience in executive management, both in the private and public sector.

Air Zimbabwe ban

The United States embassy in Zimbabwe has ordered all citizens and staff to stop using Air Zimbabwe aircraft after the airline failed to meet critical European Union and international aviation safety standards.

The US move came a week after the EU banned Air Zimbabwe, Nigerian company Med-View, Mustique Airways of St Vincent and the Grenadines, and Ukraine's Air Unga, from flying into European airspace.

TUK-ing in to training

Aerospace and aviation engineering programme students at the Technical University of Kenya (TUK) can now afford hands-on training on a high-tech CF6-80A2 aircraft engine that powers Airbus A310 and Boeing 767.

The CF6-80A2 engine, manufactured by General Electric (GE), along with aviation maintenance training books, training aids, reading materials, used aircraft parts and aircraft manuals, were donated by Kenya Airways, GE and Boeing as a joint initiative to enable capacity-building in aviation training schools in the region.

Abidjan safety boost

National Aviation Services (NAS) has been awarded the International Air Transport Association (IATA) safety audit for ground operations (ISAGO) certification for its Abidjan operations.

Amadou Kone, Minister of Transport, Cote d'Ivoire, said: "By obtaining the ISAGO certification, NAS Cote d'Ivoire reaffirms its position as one of the leading ground-handling companies in the world. This is the first time that the Felix Houphouet Boigny Airport in Abidjan is recognised by ISAGO. This also grows the very short list of west African airports handled by an ISAGO-certified handling company."

Lining up in Cape Town

South Africa's Department of Environmental Affairs has notified Cape Town International Airport that it has authorised the proposed runway realignment and associated infrastructure planned for the airport.

Genesis in the beginning in Nigeria

The Nigerian Civil Aviation Authority (NCAA) has licensed new entrant Genesis Global Aviation Limited (GGAL) to operate a commercial helicopter service across the country.

Genesis director Emmanuel Ihaenacho said the company decided to invest in a commercial helicopter service because it had faith that, despite the downturn in the aviation business, the Nigerian economy was resilient enough to survive the financial crunch.

"We believe that the economic situation we are witnessing now is just a dip. We believe that there will be a rebound at some point in time," he said.

Tracking down Traxxall

Starlite Aviation, which has facilities in South Africa and Mauritius, has signed up to Traxxall Technologies' maintenance tracking and inventory management system.

Irish-headquartered Starlite provides helicopter services and specialises in helicopter emergency medical (HEMS), medevac, and oil and gas support, with its fleet of almost 50 aircraft including Airbus, Bell, Robinson and Sikorsky helicopters.



From left: Sasha Neusser Chair of AfBAA Safety and Training Committee, AfBAA members Michael Grueninger MD GCS, Dawit Lemma MD Krimson PLC and Paula V. de Almeida, Director JAATO.

AfBAA signs training MoUs

The African Business Aviation Association (AfBAA) has strengthened its commitment to educating the sector by signing memorandums of understanding (MoUs) with the Association of African Aviation Training Organizations (AATO) and the Joint Aviation Authorities Training Organisation (JAATO).

AfBAA CEO, Rady Fahmy, said: "Training is one of our central concerns. The continent's business

aviation sector is often held back because of a lack of understanding of its benefits, sometimes from within aviation itself. With these new relationships in place we are better positioned to improve access to standardised information, provide credible courses continent-wide, and encourage African professionals to be trained in, and then subsequently work in, African business aviation."

The company's aviation training arm in South Africa was the first on the continent to order the Robinson R44 Cadet. Suitable for a wide variety of utilitarian applications, the two seater R44 was developed specifically for the training market.

Ethiopian opens new hangars

Ethiopian Airlines has inaugurated three more wide-body hangars. Equipped with state-of-the-art tele-platforms and tail docks, a full paint and general maintenance hangar, along with

15,000sqm of backside offices, different shops and a 105,000sqm hangar apron area, each facility is capable of accommodating one B747-800 at a time or other types of aircraft in different arrangements.

The third hangar is also capable of accommodating a B777-200 or three B737 aircraft at a time.

Ethiopian Group CEO, Tewelde GebreMariam, said: "Beyond ensuring self-sufficiency, completion of these hangars will enhance our capability to cope with 21st century aviation developments and offer third-party services."

ZAF in market for more fighters

The Zambian Air Force (ZAF) is negotiating with the Aviation Industry Corporation of China (AVIC) for the acquisition of more advanced fighter and trainer jets, helicopters and heavy-lift transport aircraft, as it forges ahead with a force modernisation exercise. ZAF commander, Lieutenant-General Eric Chimese, has said he hopes to capitalise on cordial business relations with AVIC to acquire "third-generation military jets in air-to-air, ground attack and trainer configuration".

Dodoma lights up 24-hour operations

Tanzania's Dodoma Airport has opened a 24-hour domestic and international flights operation, just months after embarking on a \$5.4million renovation plan.

Ten flights, including domestic and international, arrive and depart at the airport daily, thanks to the completion of the expansion plan that included construction of a 2.5km runway.

The installation of nearly 150 airfield ground lights took 14 days and involved installation of runway lights, wind sock, taxiway lights and turn-up lights – making Dodoma the first airport in east Africa to apply the latest technology.

EASy training

FlightSafety International, which has a facility in South Africa, has announced the start of new masters-level advanced training courses for the Dassault Falcon 2000EX EASy and 900EX EASy series aircraft.

Congo Cs the day

Congo Airways has contracted AFI KLM E&M to provide C-checks for the two A320s that the airline operates on domestic routes. The checks took place in Morocco, at the Aerotechnic Industries (ATI) facility at Mohamed V International Airport, Casablanca.

Jambojet receives new Dash 8 Q400

Jambojet has taken delivery of a new 78-seater Bombardier Dash 8 Q400 aircraft as it prepares to expand flight operations to cover some 25 destinations in 11 east African countries.

CEO Willem Hondius said: "The arrival of this new aircraft is a huge milestone for Jambojet. It demonstrates how committed we are to investing in growing our business and providing more choice, comfort and quality to our passengers.

"We are definitely aiming to fly our customers to more destinations and, thus, the new aircraft will help us increase capacity and fulfil our growth ambitions."



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Leaders of the world's major airlines came together at the International Air Transport Association (IATA) annual general assembly. **Kaleyesus Bekele** made the trip to Mexico to bring us his report. Pictures by **Ian Billingham**, Billypix.

Electronics ban sparks fury

When the 73rd IATA annual general assembly and world transport summit kicked off in the exotic resort city of Cancun, Mexico on June 6, the US and UK governments' ban on large electronic devices in the cabin on flights from some Middle Eastern and African airports was a major talking point.

IATA director general and CEO, Alexander de Juniac, said there had been no consultation with industry and little time to implement the ban. "The action caught everybody by surprise. And it was a big challenge for airlines to comply with and a huge inconvenience to our customers. It should not be that way," he said.

He noted that the industry trusted that valid intelligence underpinned the UK and US decisions. However, the measures themselves tested the confidence of both industry and the public, which he said, was critical for the success of any security regime.

"The US and UK have not aligned on airports that present a risk. Questions over the safety of placing so many lithium battery devices in the baggage hold have not been answered. And the other 'five eyes' nations – Canada, Australia and New Zealand – are mitigating the threat without a ban," he pointed out.



He affirmed that airlines would never compromise on security, adding that taking electronic devices from passengers had a real cost. IATA estimated that, in the ban's current scope, airlines would lose around \$180 million in lost productivity and that figure could surge to \$1.2 billion if the ban was expanded to flights from Europe to the US.

More than 18,000 daily passengers are affected by the US measures. Particularly, Gulf carriers and airports have noted a drop in passenger traffic between the Gulf and the US. Some African countries, airlines and airports have also been affected.

The bans in March triggered uncertainty

IN BRIEF

Missing reports from investigations

IATA has warned about a lack of adequate access to aircraft accident inquiries, claiming that more than two-thirds of investigation reports are unavailable.

Of some 1,000 accidents over the past ten years, only 300 accident reports were available claimed IATA's Accident Classification Task Force.

The task force's chairman, Dieter Reisinger, described the lack of "timely and thorough" reporting as "frustrating".

Different set of Traffic figures

Airlines were invited during the IATA AGM to play a greater role in tackling the growing problem of human trafficking. The director of the UN Office on Drugs and Crime (UNODC), Jean-Luc Lemahie, called on airlines to help close down the \$150 billion global criminal industry.

UNODC estimates that last year the transportation aspect of human trafficking generated a profit of \$31 billion, matching the profitability of the airline sector.

African safety record praise

Sub-Saharan Africa was credited with "significant" improvement in accident rates.

Over the course of 2016 the accident rate per million flights in sub-Saharan Africa improved, to 2.3, compared with 2.8 in Latin America and 3.85 in the former Soviet states. Asia Pacific recorded 2.05 and North America and Europe achieved rates of 0.94 and 1.25 respectively.

around traffic patterns and increased tensions between airlines and regulators.

Since then, US authorities have been discussing an extension of the ban, incorporating flights from Europe to the US. This prospect has prompted concerns within the industry.

IATA said the existing bans were increasing airlines' baggage-handling costs and potentially reducing frequencies because of lower yields from business passengers. It has proposed alternative security measures, including sniffer dogs, explosives detection technology, training staff to recognise potentially dangerous substances, and using passenger profiling and data exchange between airlines and governments.



The outgoing secretary general of the African Airlines Association (AFRAA), Dr Elijah Chingosho, said some African airlines and states had been affected by the ban.

Customers, especially business travellers, wanted to work as they flew. Going from Africa and the Middle East to the US took a long time and business people wanted to use their laptops. Passengers may be forced to use alternative airlines from those affected by the ban.

"Of course there has been an impact," said Chingosho. "We are not sure about the basis for the ban. We are not in a position to say it is positive or negative because we do not know the kind of intelligence that led to the ban, so we cannot comment on whether the relevant authorities are right or wrong. The reason behind the ban is not clear to us."

Chingosho argued that putting many laptops in the aircraft's belly hold could pose a potential safety hazard due to the heat emanating from the batteries. He said the airline industry was waiting for further clarification from the relevant authorities.

"If there is a real threat to peoples' lives we cannot argue on that," he said. "Our only industry wish is that, when the authorities are coming up with their decisions, it could be done in a collaborative manner."



“The action caught everybody by surprise. And it was a big challenge for airlines to comply with and a huge inconvenience to our customers. It should not be that way.”

ALEXANDER DE JUNIAC

We may be able to find a better solution for the same problem. This came out without prior warning and airlines are affected. It was difficult for the airlines to follow the instructions.”

Chingosho said that AFRAA was not aware of any prior consultation with the airlines. “The US Government has been called upon to collaborate with the industry. Through collaboration we can come up with a much better solution, which will achieve the desired result and maintain security without causing inconvenience to passengers.”

Another important subject for the assembly was the blocking of airlines’ funds in some African countries.

Following the declining price of oil in the global market, some African states, highly dependent on oil exports, have faced a serious foreign currency crunch, leading them to block some foreign airlines’ funds. Those countries include Nigeria, Angola, and Sudan, while Egypt has also suffered due to the impacts of the Arab Spring and some terrorist attacks.

Foreign airlines operating to these countries were unable to repatriate their funds. The four countries had blocked a total of \$1.5 billion.

According to de Juniac, IATA has been lobbying with these countries’ governments for release of the funds. “Egypt and Nigeria have released most of them but we need to do more with Angola and Sudan,” he said.

Chingosho said that AFRAA and IATA had approached the four countries and some of them had responded positively. He said he believed Egypt had cleared all the funds, while Nigeria had reduced the amount significantly.

“Angola released a small amount of blocked funds but still has a significant amount to go. The same is true with Sudan. We call upon these states to respect the stipulation in bilateral air service agreements, which require that carriers get the money that is due to them when they operate to these countries.”

Chingosho said that airlines bring business to a country, which is an important source of foreign

Continued
on Page 20

CONTINUED FROM PAGE 19

currency, adding that African airlines, which have been making losses for a number of years, could not afford to have some of their money blocked in some states.

IATA applauded African countries for recording remarkable safety results in 2016, with de Juniac reporting that, last year, sub-Saharan Africa realised an important safety milestone. "There were no jet hull losses in the region," he said. "Extending this great performance into the long term is a challenge. Airlines must continue the commitment to the IATA operational safety audit (IOSA) discipline. And governments must continue to raise their levels of adherence to the global standards of the International Civil Aviation Organization (ICAO)."



Chingosho said there were zero safety-related fatal airline accidents throughout Africa in 2016. "This has been due to efforts by various stakeholders including airlines, airports, civil aviation authorities, ground-handling companies, governments, the ICAO, and IATA all working together in collaboration to improve safety within the continent," he said.

"You also find that more and more airlines are getting IOSA registration. Forty-five airlines within Africa are now IOSA registered."

He added that the figures demonstrated that the safety culture was becoming embedded in the African continent.

"We hope that this trend will continue, because when our customers realise that our safety is up to the global standards, more and more of them will patronise African aviation. This is good for our industry. More and more entities are adopting industry best practices," he concluded.



ICAO President Dr Aliu urges airlines to focus on the emissions mission.

CORSIA CRUCIAL FOR WORLD FUTURE, SAYS ALIU

ICAO Council President Dr. Olumuyiwa Benard Aliu brought a clear and determined message to global airline CEOs at the IATA AGM concerning aviation's Carbon Offsetting and Reduction Scheme for International Aviation, or 'CORSIA'.

"We should dispel any concerns that any recent developments on the Paris Agreement will negatively impact our shared planning for effective and globally aligned aviation emissions mitigation," President Aliu said, "and I would urge you all to enthusiastically and promptly promote the CORSIA's full implementation. This global agreement demonstrates not only concrete leadership and social responsibility on climate change, but also simple and sound economic sense for airlines all over the world."

Last October, world governments endorsed the CORSIA at ICAO's 39th Assembly, with countries representing over 80% of international flight operations volunteering to participate as early as its pilot phase in 2021.

"Since that time, Saudi Arabia, Gabon, El Salvador

and most recently Nigeria have also signalled their intention to join, meaning that some 90% of international operations will be covered by the CORSIA when it launches," President Aliu said.



Since the agreement forged at its Assembly last October, ICAO has been working to ensure the timely implementation of CORSIA, including the definition of its Emissions Unit Criteria, Monitoring Reporting and Verification (MRV), and the Registry framework which will be needed.

Once it launches, the CORSIA offsetting results will complement the other main emissions reduction measures being pursued by governments and the air transport sector through ICAO. These are presently focused on accelerated tech innovations, streamlined operations to decrease fuel burn and noise, and the development and deployment of sustainable alternative jet fuels.



IATA's board of Governors is very much a Who's Who of the world's top airlines. African airlines are playing a much greater role in the organisation and held front row spots for the group photograph.

Back row: Doug Parker, chief executive, American Airlines; Pieter Elbers, chief executive, KLM; Enrique Cueto, chief executive, LATAM; Fernando Pinto, chief executive, TAP Portugal; Saleh Bin Nasser Al-Jasser, director general, Saudia; Carsten Spohr, chief executive, Lufthansa Group; Harry Hohmeister, chief of hub management, Lufthansa group.

Fourth row: Andres Conesa, chief executive, Aeromexico; Yang Ho Cho, chief executive, Korean Air Group; Akbar Al Baker, chief executive, Qatar Airways group; Mark Dunkerley, chief executive, Hawaiian Airlines; Rickard Gustafson, chief executive, SAS

Third row: Willie Walsh, chief executive, IAG; Alexandre de Juniac, director general, IATA; Calin Rovinescu, chief executive, Air Canada; German Efromovich, chairman, Avianca; Jean-Marc Janailiac, chief executive, Air France-KLM.

Second row: Robin Hayes, chief executive, JetBlue; Pham Ngoc Minh, chief executive, Vietnam Airlines; Tan Wangeng, president and chief executive, China Southern; Masaru Onishi, chairman, Japan Airlines; Naresh Goyal, chairman, Jet Airways.

Front row: Liu Shaoyong, chairman, China Eastern; Goh Choon Phong, chief executive, Singapore Airlines; Mbuvi Ngunze, chief executive, Kenya Airways; Safwat Mosallam, chairman and chief executive, EgyptAir; Alan Joyce, chief executive, Qantas; Tewolde Gebremariam, chief executive, Ethiopian Airlines.

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**SOUTH AFRICAN AIRWAYS
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There is a saying in the Republic of Niger that accomplishment of purpose is better than making a profit. However, as Victoria Moores reports, Niger Airlines is aiming for both and is about to make money after its third year of operations.

PROFIT THAT IS PURPOSE BUILT

Niamey-based Niger Airlines was founded on July 31, 2012 and launched operations from Diiori Hamani International Airport on May 4, 2014, filling the gap left when Air Niger ceased operations.

Today the airline operates a pair of single-class Fokker 50s, leased from Palestinian Airlines, which it uses to link Niamey in the far south west corner of the country with the ancient city of Agadez in central Niger, Diffa in the south east, Maradi and former capital city Zinder in the south, as well as Tahoua, also in the south west.

Niger is a land-locked country, bordered by Algeria, Benin, Burkina Faso, Chad, Libya, Mali and Nigeria... and it is huge. To put Niger's vast size in perspective, it ranks as the largest country in west Africa and is roughly twice the size of France or the US state of Texas, with more than 80% of its land covered by the Sahara Desert.

"Niger is a very, very big country and all the towns are a long way apart," said Niger Airlines managing director, Abdoul Aziz Larabou. "It is not easy to travel by road, so that is why we created the company, to help the Niger economy."

The country is also blessed with natural resources including coal, gold, gypsum, iron ore, petroleum, tin, phosphates, salt and uranium, but – like many of its African neighbours – it has been hit by the commodity crisis. "It has affected the Niger economy in terms of oil, petrol, gas and gold, but it has caused pain everywhere," Larabou said.

Yet this crunch has not been enough to set the airline back with its plans. After two years of start-up losses, Niger Airlines is poised to turn a profit as it exits its third year.

"The market is big enough," Larabou said. "Even if we focus only on domestic flights, we

will be profitable, but we will make more if we go beyond Niger."

With three years of home-country operations under its belt, the fledgling airline is looking to branch further afield in 2017. By the end of the year, Niger Airlines is planning to phase out its two Fokker 50s and replace them with a pair of used ATR 72-500s, which it will use to open up new links with other west African countries. If the ATR 72-500s work out well, they could be upgraded to newer ATR72-600s within about two years.

"We started with the Fokker 50 because it was low cost. Now we are going to move forward with ATR," Larabou said. "We started slowly; we knew it wasn't good for us to become bigger at once."



While the ATR 42 might be a more natural replacement for the Fokker 50s, Larabou said the current fleet is operating at an 80% load factor, so the larger ATR 72 was a natural choice to modernise and grow Niger Airlines' business.

Potential destinations under the expansion include Accra in Ghana, Bamako in Mali, Cotonou in Benin, Dakar in Senegal, Lome in Togo, N'Djamena in Chad and Ouagadougou in Burkina Faso.

After one year of ATR 72 operations, Niger Airlines is planning to extend its wings and reach again.

"Afterwards, we are planning to go to central Africa and get two Airbus A320s to serve Libreville (Gabon), Pointe-Noire (Republic of the Congo), Douala (Cameroon) and Yaoundé

(Cameroon)," Larabou said. "We are working with our finance partners and shareholders to buy the two Airbus aircraft, which we should get by 2019."

"Niger is hosting a big conference in 2019 – all the countries will be there – so the government is hoping that Niger will be ready before 2019."

Niger Airlines is 100% privately-owned. "The government is behind us. We don't have a national carrier and the government don't want to create one, so they are leaving this sector to private companies. We had one competitor that started operations after us, but that has closed down. It was Fly SkyJet, but their operation was chartered, not scheduled."

However, Larabou sees potential value in partnerships. Niger Airlines is in talks over a possible memorandum of understanding with Tunisair, although this has not yet been finalised. Likewise, tentative partnership talks are under way with Turkish Airlines. "We are waiting on our new aircraft," Larabou said.

Finally, by 2022, Niger Airlines is hoping to secure a pair of A330s to serve the European cities of Brussels and Paris, as well as Dubai in the Middle East, as the young carrier seeks to fulfil its purpose of connecting Niger to the world.

Niger is on the border between the Saharan and sub-Saharan regions and is one of the hottest countries in the world. It is nicknamed the frying pan of the world and raindrops have been known to evaporate before they hit the ground. Market conditions may be challenging, but Niger's people are used to feeling the heat and Larabou sees a sunny future ahead. "The African aviation market is very big; everyone can find a place in the market," he said.



Abdoul Aziz Larabou: "Even if we focus only on domestic flights, we will be profitable, but we will make more if we go beyond Niger."

SOMMAIRE

TIRER PROFIT D'UN OBJECTIF

Selon un dicton de la République du Niger, c'est mieux d'atteindre un objectif que de faire du profit. Cependant, comme l'indique Victoria Moores, Niger Airlines vise les deux.

Fondée en juillet 2012, Niger Airlines commença ses opérations à partir de l'aéroport international Diori Hamani en mai 2014, comblant le vide laissé par Air Niger. Elle exploite deux Fokker 50 de classe unique pour relier Niamey à plusieurs villes de ce vaste pays enclavé recouvert à 80% par le Sahara.

Selon Abdoul Aziz Larabou, son directeur général, la compagnie privée a été créée pour aider l'économie nationale et contrecarrer les difficultés liées aux déplacements par voie terrestre.

Riche en ressources naturelles (charbon, or, gypse, fer, pétrole, étain, phosphates, sel et uranium), le pays a été touché par la crise des produits de base comme plusieurs de ses voisins. Une situation économique qui n'a toutefois pas freiné le plan de développement de la compagnie qui après deux années de perte va faire des profits.

« Même si nous nous concentrons uniquement sur les vols intérieurs, nous serons rentables, mais nous ferons mieux encore si nous allons au-delà du Niger. »

□□□□□

Avec trois ans d'opération, Niger Airlines va remplacer ses avions par deux ATR72-500 d'occasion pour lancer de nouvelles dessertes vers des pays d'Afrique de l'Ouest. Ces avions seraient optimisés en version ATR72-600 dans environ deux ans dépendant de leur performance.

« Un choix naturel pour moderniser et développer les activités de Niger Airlines. »

Les destinations potentielles sont Accra, Bamako, Cotonou, Dakar, Lomé, N'Djamena et Ouagadougou. La compagnie va ensuite étendre ses services avec deux A320 vers Libreville, Pointe-Noire, Douala et Yaoundé. Les Airbus devraient être livrés en 2019 quand le pays accueillera une grande conférence internationale.

Abdoul Aziz Larabou voit un fort potentiel dans les partenariats. Ainsi, Niger Airlines est en pourparlers avec Tunisair pour la signature éventuelle d'un protocole d'accord. Des négociations sont également en cours avec Turkish Airlines.

D'ici 2022, Niger Airlines espère avoir deux A330 pour desservir Bruxelles, Paris et Dubaï. Le jeune transporteur garde le cap pour connecter la République du Niger avec le monde.

Niger Airlines évolue actuellement sans concurrence au niveau national. Elle compte en profiter avec le soutien du gouvernement qui n'envisage pas de créer une compagnie nationale.

« Le marché de l'aviation en Afrique est très important. Tout le monde peut y trouver une place. »



Air Mauritius: Une nouvelle dynamique pour ses 50 ans

«Air Mauritius celebrates memorable half century» – Page 26

Air Mauritius a annoncé le renouvellement de sa flotte d'avions, la signature d'un partenariat stratégique avec KLM et la poursuite de son plan de développement. Des détails avec Vincent Chappard.

Cela fait 50 ans cette année depuis que la compagnie nationale Air Mauritius connecte l'île au reste du monde. Elle s'apprête à célébrer cet événement historique en s'associant aux festivités qui marqueront les 50 ans de l'indépendance de Maurice en 2018.

L'histoire d'Air Mauritius est étroitement liée à Airbus. Le porte-drapeau mauricien fut la première compagnie de l'hémisphère sud à faire voler un A340-300 en 1994. A ce jour, elle opère 10 Airbus et 3 ATR72-500s.

■ INNOVATION ET EFFICACITÉ

Consolidant cet élan de confiance, la compagnie vient de rajouter deux Airbus A330-900neo (remotorisés par les moteurs Trent 7000 de Rolls Royce) à sa commande en cours de six Airbus A350-900 dont le premier est en assemblage à Toulouse.

Le remplacement des deux A340-300E par les A330-900neo est « la clé de la modernisation de la flotte d'Air Mauritius.

Ces deux avions desserviront les vols moyen-courriers vers Guangzhou, Hong Kong, New Delhi et Perth. Ils pourront être utilisés si besoin sur des destinations plus longues. « Les A330-900neo peuvent parcourir les distances entre Maurice et l'Europe à pleine charge. »

Avec ses nouveaux A350 et A330neo, la flotte de la compagnie sera constituée d'avions de nouvelle génération lui permettant « de faire un

bond conséquent en matière d'innovation technologique et environnementale, de confort-client et de performance économique et opérationnelle » pour peser sur le développement national, régional et africain.

C'est d'ailleurs ce qu'a souligné Hadi Akoum, directeur des ventes pour l'Afrique et l'océan Indien chez Airbus, lors d'une présentation à Maurice en avril dernier. Selon l'avionneur, le trafic des passagers va plus que doubler durant les vingt prochaines années soit de 5,2% contre 4,4% au niveau mondial.

« Le trafic des passagers connaîtra une croissance dans les années à venir à l'échelle mondiale. Maurice va consolider sa marque comme l'une des meilleures destinations touristiques. Le pays va jouer un rôle clé dans la croissance du marché africain. L'industrie du transport aérien a un énorme potentiel sur ce continent en plein essor. »

■ PARTENARIAT STRATÉGIQUE

Air Mauritius renforce en parallèle ses hubs internationaux. Après Paris en partenariat avec Air France, Dubaï avec Emirates, la compagnie va développer un troisième hub grâce à un partenariat stratégique avec KLM.

KLM et Air Mauritius opéreront un vol direct Amsterdam-Maurice trois fois par semaine avec un B787-9 de KLM à partir du 30 octobre 2017. Les vols

Continuer à
la page 26



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SUIVE DE LA PAGE 24

d'été seront opérés par Air Mauritius deux fois par semaine à partir du 29 mars 2018 avec un A340.

« Maurice est un bel ajout au réseau de KLM. Je suis donc heureux que nous puissions maintenant proposer un vol toute l'année vers cette île magnifique avec notre nouveau partenaire Air Mauritius », estime le PDG de KLM, Pieter Elbers.

Le porte-drapeau mauricien compte capitaliser sur ce partenariat.

« L'ajout de cette route Amsterdam-Maurice met en évidence nos objectifs de développement non seulement pour le marché néerlandais, mais aussi pour l'ensemble de l'Europe grâce au réseau de KLM », soutient Raja Buton, Officer in Charge chez Air Mauritius.

■ NOUVELLES PERSPECTIVES

Air Mauritius a annoncé des profits pour l'exercice financier en cours, les « meilleurs résultats » enregistrés durant les cinq dernières années.

Selon Air Mauritius, la hausse des prix du pétrole (déjà de 15%) va avoir un impact négatif sur la croissance du transport aérien en 2017. Ajouter à cela la faiblesse de l'euro par rapport au dollar.

La compagnie mauricienne affiche ainsi « un optimisme prudent » face à la dynamique de l'industrie et à l'évolution du marché international.

« La concurrence est extrêmement féroce, cruelle même. Les défis sont nombreux : prix du carburant, taux de change volatils et les marchés en mutation constante. Il est évident que ces résultats permettront à la compagnie de consolider ses bases et de poursuivre son plan de développement. »

Air Mauritius scrute l'horizon avec l'arrivée éventuelle de low-cost long-courrier sur l'île. Tout en s'impliquant dans le projet Alliance Vanille, le Paille-en-Queue doit se défendre dans un environnement de plus en plus compétitif.



LE RAJEUNISSEMENT D'AIR MAURITIUS

Vincent Chappard a interrogé Raja Buton, Officer in Charge chez Air Mauritius, sur les enjeux de la compagnie.

VC: Air Mauritius vient d'étoffer sa flotte d'avions avec deux nouveaux A330-900neo ? Quelles en sont les raisons ?

RB: La commande des A330-900neo a été placée pour accélérer le rajeunissement de la flotte d'Air Mauritius. Ils vont remplacer les deux A340-300E en location. Ces avions permettront d'améliorer l'efficacité de notre flotte compte tenu de leur faible consommation en kérosène et une réduction des coûts de maintenance.

VC: Quel est le planning de livraison des nouveaux avions d'Air Mauritius ?

RB: La livraison des deux premiers A350-900 est prévue en octobre et novembre 2017. Celle des A330neo en septembre et octobre 2018. En 2019, nous allons avoir deux A350-900 supplémentaires, tandis que les deux derniers A350-900 sont attendus en 2023.

VC: Air Mauritius a signé un accord avec KLM. Y-a-t-il d'autres partenariats prévus ?

RB: Après Paris, il était temps de s'appuyer sur un autre hub en Europe pour étendre notre réseau afin d'accéder à de nouveaux marchés (pays nordiques et Europe de l'Est). Air Mauritius est en pourparlers avec d'autres compagnies aériennes afin de mieux desservir certains marchés et de proposer davantage de flexibilité à notre clientèle.

VC: Quelles sont les opportunités de développement pour Air Mauritius ?

RB: Notre approche nous mène à explorer en permanence de nouveaux marchés potentiels pour étendre notre réseau par nos propres moyens et/ou par le biais de partenariats.

Sur le plan régional, l'arrivée du troisième ATR72 nous a donné davantage de flexibilité sur le réseau inter-îles.

Nous desservons Antananarivo en coopération avec Air Madagascar. Notre objectif est d'atteindre un vol par jour avant d'envisager une deuxième desserte sur Madagascar.

SUMMARY

AIR MAURITIUS CELEBRATES MEMORABLE HALF CENTURY

To celebrate 50 years of operations, Air Mauritius has announced the renewal of its fleet with the leasing of two new A330neo airliners; the signing of a strategic partnership with Dutch airline KLM; and the continuation of its development plan.

In June it will be 50 years since the national carrier first connected the Indian Ocean island by air to Africa and the rest of the world. It is preparing to celebrate this historic event by joining in the festivities that will mark the 50th anniversary of Mauritius' independence in 2018.

Air Mauritius has just added two Rolls-Royce Trent-powered Airbus A330-900neo wide-body airliners to its current order of six Airbus A350-900s. The replacement of its two A340-300Es by the A330-900neo is, it says, the key to the modernisation of its fleet.

These two aircraft will serve medium-haul flights to Guangzhou, Hong Kong, New Delhi and Perth and, if required, to long-haul destinations, as the A330-900neo can fly between Mauritius and Europe with a full load.

Air Mauritius is also strengthening its international hubs. Following its partnership with Air France (Paris) and Emirates (Dubai), the airline will develop

a third hub in The Netherlands through a strategic partnership with KLM.

KLM and Air Mauritius will operate a direct flight from Amsterdam to Mauritius three times a week with a KLM B787-9 from October 30 2017. Summer flights will be operated by Air Mauritius, twice a week, from March 29 2018 using an Airbus A340.



The Mauritian flag-carrier intends to capitalise on this partnership and the CEO, Raja Buton, is enthusiastic about the future.

Air Mauritius has recorded profits for the current financial year, the "best results" during the past five years.

However, thanks to the on-going hike in oil prices and the weakness of the euro against the dollar, the Mauritian airline is only "cautiously optimistic" about the future. Air Mauritius must strike a good balance between protecting itself in a more and more competitive environment and contributing efficiently to the Alliance Vanille project.



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Airport Terminal Planning and Design	05 - 09 June
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July

Dangerous Goods Regulations (DGR) - Initial - Category 6	03 - 07 July
Airport Marketing & Corporate Communication Strategies	03 - 07 July
Passenger Fares and Ticketing - Basic	10 - 14 July
Security Management Systems - SeMS	10 - 14 July
Instructional Techniques	24 - 28 July

August

Cargo Revenue and Yield Management	07 - 10 August
International Negotiation Skills	07 - 11 August
Professional Skills for DGR Instructor - Categories 1,2,3,6	14 - 18 August
Station / Ground Handling Management	21 - 25 August

September

Airport Slots and Coordination	11 - 13 September
Managing Accident Prevention and Investigation	11 - 15 September
Passenger Proration - Fundamentals	18 - 22 September
Airline Customer Service: Strategy Design and Implementation	18 - 20 September
Project Management - Advanced	25 - 29 September

October

Route Forecasting and Development	02 - 05 October
Airlines Understanding and Adopting NDC	03 - 06 October
Aircraft Acquisition and Financing	16 - 19 October
Airport Security Operations Optimization	16 - 20 October
Air Transportation Management	23 - 27 October
Training Needs Assessments	25 - 27 October

November

Special Fare and Ticketing- Intermediate	13 - 17 November
Instructional Techniques for DGR Categories 4,5,7,8,9,10,11,12	13 - 17 November
Network, Fleet and Schedule Planning	27 Nov - 1 Dec
Airline Business Models and Competitive Strategies - Virtual Simulation Program	27 Nov - 1 Dec

December

Baggage Handling Services and Systems	04 - 08 December
Cargo Skills and Procedures	04 - 08 December
Human Factors in Aviation	11 - 15 December
Crew Resource Management for Instructors	11 - 13 December
Passenger Proration - Advanced	18 - 22 December
Professional Skills for DGR Instructor - Categories 1,2,3,6	18 - 22 December



Éric Trautmann, nouveau directeur des opérations de Corsair International et Pape Maël Diop, directeur général des Aéroports du Sénégal ont organisé une conférence de presse conjointe à l'aéroport international Léopold Sédar Senghor de Dakar récemment. Un choix stratégique comme nous l'explique Vincent Chappard.

Corsair s'appuie sur ses points forts

A l'occasion de la fête de l'Indépendance du Sénégal, le nouveau directeur des opérations de Corsair International a tenu à célébrer la présence de la compagnie depuis plus de 25 ans dans le pays. Avec des tarifs attractifs et un programme de vol allant jusqu'à 7 vols par semaine, la filiale du groupe TUI (leader mondial du tourisme) affiche un excellent taux de remplissage de 89% sur cette route.

Corsair opère des vols réguliers vers les Caraïbes, le Canada, l'océan Indien (La Réunion, l'île Maurice, Mayotte, Madagascar), l'Afrique (le Sénégal et la Côte d'Ivoire) et le Cuba depuis mai. L'océan Indien représente 45% de son chiffre d'affaires dont 29% pour La Réunion.

■ UNE AMBITION RÉGIONALE

La compagnie a récemment réaffirmé son ambition d'intensifier son développement sur le marché régional dans l'océan Indien en parallèle de son activité long-courrier. La consolidation des vols régionaux devraient faciliter les échanges économiques et promouvoir les séjours touristiques combinés entre les îles de l'océan Indien.

Corsair déploie aujourd'hui sa stratégie régionale en créant des bretelles. En effet, les vols longs sur l'océan Indien se font généralement de nuit. Les avions arrivent le matin et repartent le

soir. Au lieu de laisser ses avions immobilisés, Corsair a donc décidé d'augmenter son efficacité opérationnelle.

« Nous sommes ainsi en mesure de développer un trafic supplémentaire pour faire du point à point », assure Éric Trautmann. « Ces opportunités répondent à notre volonté d'optimiser l'utilisation de notre flotte et d'offrir de meilleurs tarifs et plus de flexibilité dans la région ».

Corsair a développé ce concept à partir de l'île de la Réunion. C'est également une façon pour la compagnie d'assurer sa présence auprès des populations de la région. Corsair a opéré en janvier son premier vol régional entre La Réunion et Mayotte à raison de 2 vols hebdomadaires.

« Nous avons ouvert cette route pour voir comment répondait le marché et nous sommes plutôt satisfaits », souligne Éric Trautmann. « Nous avons décidé de prolonger et d'amplifier l'utilisation des bretelles dans l'océan Indien ».

La compagnie a poursuivi son déploiement sur les Iles Vanilles le 9 avril dernier, avec un vol hebdomadaire entre La Réunion et Madagascar grâce à l'obtention des droits de trafic.

La compagnie a cependant beaucoup de difficultés pour obtenir les droits de trafic lui permettant d'opérer la route Maurice/La Réunion. A noter que La Réunion représente environ 12% des arrivées à Maurice.



Est-ce que ce business est transposable au Sénégal et ailleurs en Afrique ? Selon Éric Trautmann, les vols vers l'Afrique sont plus courts. De ce fait, l'utilisation du système de bretelles peut se faire dans certains scénarii en fonction des créneaux horaires.

■ L'AFRIQUE, LA PRINCIPALE RÉGION DE DÉVELOPPEMENT

« Nous réfléchissons à des ouvertures de lignes en 2018 vers l'Afrique. C'est un marché prometteur et nous regardons commercialement les meilleures opportunités à la fois pour un marché touristique et un marché business. »

Corsair a des atouts à jouer face à une forte compétition. La compagnie veut créer également une alternative à des opérations et à des clients qui n'ont pas beaucoup de choix.

A noter que l'Afrique de l'Ouest pourrait permettre à la compagnie de réaliser 10% de ses recettes dans le secteur du fret.

Corsair doit impérativement adapter sa flotte pour assurer son développement. En 2015, la compagnie a décidé de garder ses Boeing 747 jusqu'en 2020/2021 et de faire une grande visite MRO, ce qui a permis la rénovation des cabines. Selon Éric Trautmann, ce choix s'avère pertinent à ce jour. « Nous sommes en mesure de maintenir des prix bas avec un avion à 530 sièges avec un coût carburant maîtrisé avec un avion déjà amorti. »



Éric Trautmann and Pape Maël Diop at Leopold Sédar Senghor International Airport.

SUMMARY

CORSAIR BUILDS ON ITS STRENGTHS

French-owned and Paris-based Corsair International, part of the TUI Group, helped to celebrate Senegal's national day on April 4 by holding an event at the country's Leopold Sédar Senghor International Airport in Dakar.

The airline's new chief operating officer, Eric Trautmann, along with Pape Maël Diop, GM Aéroports du Sénégal, organised a joint press conference at which they celebrated more than a quarter-of-a-century of flights into the country that operate at a load factor of around 90%.

Corsair operates regular flights from Paris to the Caribbean, Canada, the Indian Ocean (Reunion, Mauritius, Mayotte and Madagascar), Africa (Senegal and Côte d'Ivoire) and – since May – Cuba. The Indian Ocean destinations currently account for 45% of its business, the majority of which is to and from Reunion.

□□□□

The company has recently re-stated its ambition to step up its development in the Indian Ocean regional market in parallel with its long-haul business.

Consolidation of regional flights should facilitate economic exchanges and promote combined tourism throughout the Indian Ocean islands.

Today, Corsair's long-haul international flights to the Indian Ocean are usually overnight. So, instead of leaving its aircraft on the ground during the day, Corsair intends to increase its operational efficiency, creating extra traffic.

Corsair has already developed this concept from the island of Reunion, from which it now operates a regular twice-weekly flight to the French island of Mayotte, north of Madagascar.

"We opened this route to see how the market responded and we are very satisfied," said Trautmann. "So we have decided to expand the use of this type of operation within the region."

To this end, the airline now operates a weekly flight from Reunion to Madagascar and Trautmann believes that this model is transferable to other routes within Africa, including Senegal.

He concluded: "We are thinking about opening further African routes in 2018 for both tourism and business passengers and any decision to modernise our fleet will be made at the beginning of 2018."

La décision pour la modernisation de la flotte sera prise début 2018. Corsair compte saisir les opportunités pour trouver des avions neufs ou d'occasion.

■ LA COMPÉTITION DES LOW-COST

De nombreuses compagnies low-cost (Norwegian Airlines, Air Asia, XL Airways, French Blue) commencent à s'implanter dans l'industrie du transport aérien pour les vols moyen/long-courriers. La compagnie Corsair demeure confiante face à cette donne.

Issue d'un monde charter et habituée à tirer les prix vers le bas, elle s'est mutée en compagnie régulière tout en gardant ses modes de fonctionnement et des processus qui permettent d'optimiser les coûts. « Corsair a trouvé un bon compromis entre les services et les coûts. »

Pour Éric Trautmann, il existe deux éléments derrière le nouveau concept de low-cost : une façon de produire et une façon de vendre. La façon de vendre, c'est de découper l'ensemble en options pour essayer d'avoir le produit d'appel le plus bas. La façon de produire est un management avec des entreprises plus jeunes avec de faibles coûts de structure.

« Les études montrent que lorsque vous faites la somme des coûts réels (enregistrement d'un bagage, repas, etc...), les tarifs se rapprochent. » Les compagnies traditionnelles tendent aujourd'hui à entrer dans ce même système.

Corsair est en train pour sa part d'adapter sa grille tarifaire et de produits. Elle dispose aujourd'hui de « brand fares » pour avoir des produits d'appel.

Le fonctionnement « low-cost » pour le moyen-courrier est différent car il existe des contraintes de fuseaux horaires et des droits de trafic plus importants. Le différentiel avec les compagnies classiques est par conséquent réduit. L'adaptation des tarifs et des efforts de productivité de celles-ci permettront de gommer les différentiels. C'est l'avenir qui le dira.

Corsair se trouve aujourd'hui dans la même situation que de nombreuses compagnies. Financièrement, elle a atteint l'équilibre pour son exercice financier de 2016 avec plus de 10 millions d'euros de bénéfices mais elle reste fragile aux aléas. Elle doit donc s'ouvrir et rechercher des partenariats commerciaux et capitalistiques pour être un moteur à sa croissance et franchir un cap déterminant.

« Nous travaillons sur un plan stratégique et des rapprochements avec des partenaires tant commerciaux que stratégiques », rappelle Éric Trautmann.

Corsair avait un projet de fusion avec le groupe Dubreuil (Air Caraïbes) en 2015 mais celui-ci ne s'est pas concrétisé.

La compagnie est amenée à cultiver ses valeurs et ses forces face à une compétition toujours plus exacerbée tout en s'ouvrant aux partenariats extérieurs.

Chadian start-up FlyART is planning to launch scheduled operations from this year, although the exact business model is still being finalised. Victoria Moores reports.

FlyART paints a bigger picture with twin targets

FlyART has been created to replace Toumaï Air Tchad, which was founded in 2004 and ceased operations in 2012.

Toumaï Air Tchad operated a Boeing 737-400 and a Fokker F28 from N'Djamena on domestic and regional routes, bringing in other chartered aircraft to perform Hajj pilgrimage flights. However, FlyART will operate a different business model to its predecessor.

"It was the will of the president of Chad to resurrect a national carrier in the country," said FlyART senior consultant, Hervé Gueusquin, speaking at Aviation Africa 2017 in Kigali, Rwanda.

FlyART has been created from Gabonese airline, Afrijet Business Services, and is headed by its CEO, Marc Gaffajoli.

Afrijet was already present in Chad, operating VIP flights on Dassault Falcon 900Bs business jets, when it seized the opportunity to set up the new airline.

Alongside the two Falcon 900Bs, Afrijet also operates two ATR 42-500s and two ATR 72-500s in Gabon.

The commodity crisis meant that oil and gas companies no longer wanted to fully charter planes, so Afrijet switched from full-charter to scheduled services, with block seat agreements for the oil companies.

Gueusquin helped Afrijet in the change management of the business model, setting up the website, the reservations system, ground operations procedures and the new brand – FlyAfrijet.online.



He was helping Afrijet set up its own scheduled operations within Gabon and to São Tomé and Príncipe before getting involved separately with the FlyART project.

The fledging Chadian start-up is planning a two-pronged approach. On the one hand, it plans to tap the lucrative Hajj pilgrimage market using chartered wide-bodies such as Boeing 777s or 747s. Separately, it wants to perform regional scheduled operations.

Chad has an allocation of 12,000 Hajj pilgrims this year, who need to be transported to Jeddah within a one-week period, returning a month later. Under the rules set by Saudi Arabia Civil Aviation – GACA, Saudi Arabia's



"It was the will of the president of Chad to resurrect a national carrier in the country."
HERVÉ GUEUSQUIN

designated Hajj carrier, Flynas, is allowed to carry 50% of this traffic.

This means FlyART has access to thousands of passengers.

FlyART's geographical location is an advantage. Chad is positioned right in the centre of Africa, so it is just four hours' flight to Jeddah, versus 10 hours via Ethiopia, or eight hours via Egypt, which are the alternatives.

The airline wants to operate regional flights from Niamey in Niger and N'Djamena to Jeddah using a Boeing 737-300 on wet lease. It is looking to partner for its regional flights, preferably with a Gulf low-cost-carrier (LCC) performing onward flights from Jeddah. "If you want to be profitable in Africa, you have to partner with one of the big guys," said Gueusquin.



FlyDubai would be a potential partner, but Gueusquin believes that the Flynas model fits more closely with FlyART, as it shares a similar cabin and product concept.

Talks are under way but Gueusquin said the exact set-up is still evolving. This leaves FlyART with three potential options: to operate its own-branded wet-leased aircraft independently, to

codeshare on its own operations with a LCC, or to sell block seats on LCC-operated flights.

However, a possible complication could come from Ethiopian Airlines, which Gueusquin said is in talks to set up its own joint-venture regional airline in Chad.

There is a risk that this airline could become the Chad national carrier, which would mean FlyART losing its Chad Hajj rights. But this would not deter FlyART, which would press ahead with its regional plans as a non-flag carrier.

Gueusquin recognises the challenges of setting up the airline. Taxation is high, which prohibits the kind of low fares needed to make travel accessible for regular people. This limits the market to business travellers, like traders, importers and exporters, who have to travel from one place to another for their work. There is also little data available on potential routes, as many of them have never been operated before.

However, he is confident that the airline will take off, even if the precise flight path is a little unclear for the moment.

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UTC Time 14 April 2016 23:36:30
Take-off Time 15 April 2016 14:04:10
ETA 15 April 2016 14:52:00
Position -36.858° S, 174.772° E
Altitude 1504ft
Speed 120 knots
Direction 267° T

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African countries could be affected by the European Union's (EU) new joined up approach to conflict zone assessment, which could see airlines banned from flying to, from, or over riskier areas.

Victoria Moores reports.

CONFLICTING OPINIONS

«Des divergences qui pourraient affecter l'Afrique » – Page 36

Europe is working to harmonise its intelligence-gathering to better-assess risks to civil aircraft.

Under the plan, the EU is considering giving the European Aviation Safety Agency (EASA) new powers to avoid a repeat of the missile attack on Malaysia Airlines flight MH17 in 2014 over eastern Ukraine, which killed 298 people.

“Already, before the downing of MH17, some airlines did not want to fly over eastern Ukraine as a result of information provided from the intelligence services of the US, France and UK, among others,” European Parliament Member (MEP) Matthijs Van Miltenburg said. “It was claimed that this information was only shared with their corresponding national airlines.”



Information-sharing improvements were needed and the EU has since worked to create a common European risk and alerting system, using pooled conflict-zone intelligence from EU member states and their allies. This data is then communicated to airlines, via EASA, to improve aviation safety.

The timing is interesting, because EASA's powers are under review and could be extended to include conflict-zone mandates.

“There are some areas where we know there is conflict and a threat. The question about those areas is, if somebody knows something, how do we share this information and make it available to all airspace users,” EASA executive director Patrick Ky said.



Another question is how to communicate breaking alerts, which may not have time to go through the intelligence review process. Ky gave the example of Cruise missiles that were launched from a Russian ship in the Caspian Sea in 2016, overflying Iran, targeting Syria. EASA was alerted by commercial airline pilots operating in the area and had to react within hours. “The trajectory of those missiles basically crossed the trajectory of [civil] aircraft, but not at the same altitude. For this, we need a rapid-alert system,” Ky said.

However, the biggest sticking point is whether the safety advice should be binding, or simply a recommendation. Opinions are divided. The European Commission and EASA both want it to be mandatory, but the European Council disagrees.

“We are an agency which is used to binding measures in the field of airworthiness,” Ky said, stressing that some countries need binding measures before they can take action. “We

never take a binding measure without looking at the impact. We do that if there is no other possibility and only after consultation with all the stakeholders. Sometimes we need exactly the same instruction going to all the airlines.”

Matthijs Van Miltenburg:
“Already, before the downing of MH17, some airlines did not want to fly over eastern Ukraine as a result of information provided from the intelligence services of the US, France and UK, among others. It was claimed that this information was only shared with their corresponding national airlines.”



The missile attack on Malaysia Airlines flight MH17 in 2014.

Left: Africa has more than its fair share of potential hotspots.

GRAPHIC: © THE GUARDIAN

Conversely, if the advice was non-mandatory, one airline could assess the information and decide it was safe to fly when others have decided against it. This is unfair and could distort the market, Ky said.

“The appetite for risk differs by airline, but what about the passengers’ risk appetite? They [the airline] take a risk and, without knowing it, their passengers are taking it as well. It is a difficult issue, but I think the fundamental question we need to deal with is protecting passengers,” Ky said.

Representing the views of the European Parliament, MEP Marian-Jean Marinescu said passengers place themselves in the hands of their airlines, trusting that safety concerns have been managed. However, he argued a recommendation-based system could bring passenger safety down to luck in choosing the right airline.

“Some companies from the same state could



Patrick Ky: “If somebody knows something, how do we share this information and make it available to all airspace users?”

be flying and some going around [the conflict zone]. Why, when they have the same information? A company is not free [impartial] because cost is a problem for airlines. There should be one entity [overseeing this], which is independent and I think that should be EASA,” Marinescu said.

He went on to argue against altitude restrictions, saying that if the first 10,000 feet are unsafe, then higher altitudes should also be closed. Countries, he said, have a vested interest in keeping their airspace open, rather than closing it as a precaution.



But what about the airlines themselves? KLM head of flight operations, Bart de Vries, said communication has improved since MH17, but he added: “It is very important that we don’t forget that we already have a system, globally, in aviation. It is up to each and every individual state to close their airspace when it is not safe to fly there. When something fails, we should go to the core of the problem and try to solve that. If a state does not close its airspace when it should be closed, we should address that state immediately and ask it to take action.”

De Vries agreed that the world is imperfect, so extra action is needed, and EASA is well equipped to distribute the information. But he disagreed about the conflict zone advice being binding, arguing that intelligence-gathering needed to be solid first and that airlines and

Continued on Page 36

CONTINUED FROM PAGE 35

pilots successfully make their own risk assessments every single day. “We are the safest mode of transport on this, unless you count elevators,” he said. “It is us that must make determinations about whether a risk is acceptable or not, within the bandwidth of the threat, and I hope we continue down this path.”

Finally, he highlighted the difference between a risk and a threat. “A threat is not yet a risk. There is threat everywhere. If you overfly the Netherlands there is a threat, because the Netherlands has a navy and an air force and they are perfectly capable of shooting down aircraft. However they will not, because they have no interest in doing so and they have very robust mechanisms in place to prevent anything like that from happening, so the risk is deemed to be low.”

Once the threat and risk level have been established, an airline can work out any operational restrictions, accounting for factors like lower altitudes in the event of an engine failure.

“There is no one size fits all approach to this issue; it has to be customised towards the airline, towards the country the airline is coming from and towards the destinations the airline is flying to. We should not fix the end of the process before we have fixed the beginning of the process,” he said.

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Previously, airlines relied on their own governments to share risk information that was not typically freely available. The new system works by bringing together information from all of the EU member state intelligence and security services, as well as those from some associated non-EU states.

This is fed into the EU Intelligence and Situation Centre, which came into being after the September 11 attacks on the USA in 2001, to collate intelligence.

External Action EU Intelligence and Situation Centre director Gerhard Conrad said: “The first myth is that intelligence and security services don’t share [information]; I can assure you they do – more than you think. Particularly EU intelligence services do share on a regular basis.”

The second myth is that the EU gathers its own covert intelligence. The bloc does not collect information directly, but on a voluntary basis member states regularly contribute completed – and sometimes edited – intelligence files on the situation in foreign countries, terrorist threats and the military situation in crisis zones.

“We are not receiving and processing operational intelligence – that means single pieces of intelligence – we are processing pre-analysed intelligence,” Conrad said. “Staff, seconded by [member state intelligence] services reach back into their services and come back with a pretty competent and detailed

understanding, without revealing any sources or methods.”

The conflict zone initiative is a cooperation between the EU’s Directorate General for Migration and Home Affairs (DG HOME), the Directorate General for Mobility and Transport (DG MOVE), EASA and the intelligence services.

“We are not able to offer zero risk to airlines and passengers, but this is a considerable improvement in terms of a real analysis of where risk might exist in terms of overflight,” said DG HOME deputy director general Olivier Onidi, while also pushing for EASA to have binding powers. “If overflight zones are deemed to be high risk, then they are high risk to everyone.”

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Onidi said a fully-functioning system has been formed over two years’ work. “The end of the chain is what’s missing today. It just needs to be put in stone and formalised. There is no issue of the intelligence services not wanting to share information. The whole chain is working perfectly. The only thing that is missing on overflight is the nature of the recommendation

[recommended or binding] and the voice of that recommendation.”

EASA is already issuing conflict zone alerts, but the body’s new powers still need to be finalised as it is not able to issue binding mandates in this area, or allowed to participate in the intelligence talks directly.

“The mechanism is starting to work, but it still needs to be improved because we – EASA – are not allowed to participate [in the talks]. This makes it very difficult for us, because later on we distribute the information, but without knowing all the background,” explained Ky. He added that the mechanisms and points of contact for the rapid alert system have been established, but there have not been any major events to live test the system.

If any country is an expert in aviation security, it is Israel. Tel Aviv’s Ben Gurion hub airport has come under rocket fire several times over the recent years. Speaking at the European Parliament hearing, Civil Aviation Authority of Israel (CAAI) deputy director, General Gad Regev, summed the feelings of all the bodies involved. “We hope this [set of precautions] remains a theoretical exercise only.”

SOMMAIRE

DES DIVERGENCES QUI POURRAIENT AFFECTER L’AFRIQUE

Les pays africains pourraient être affectés par la nouvelle approche de l’Union européenne (UE) quant à l’évaluation des zones de conflit et à l’interdiction de voler au-dessus des zones à risques. Un reportage de Victoria Moores.

L’UE harmonise ses services de renseignement afin de mieux évaluer les risques pour les avions commerciaux. Elle envisage donc de donner de nouvelles prérogatives à l’EASA pour éviter par exemple une attaque de missile qui aurait touché le vol MH17 de Malaysia Airlines en 2014.

« Déjà, certaines compagnies aériennes ne voulaient pas survoler l’est de l’Ukraine », souligne Matthijs Van Miltenburg, membre du Parlement européen.

L’UE a donc créé un système d’alerte au niveau européen en utilisant les informations dont disposent ses États membres et leurs alliés. Ces données sont ensuite communiquées aux compagnies aériennes, via l’EASA, pour améliorer la sûreté aérienne.

« Il y a des régions où nous savons qu’il existe des conflits et des menaces. La question est de savoir à partir d’une information, comment nous pouvons la partager et la mettre à la disposition de l’ensemble des acteurs de l’espace aérien », explique Patrick Ky, directeur général de l’EASA.

L’autre question sous-jacente est de savoir comment communiquer des alertes qui n’ont pas le temps de transiter via les services de renseignement. Ces services doivent-ils être restrictifs ou simplement émettre une recommandation.

Selon Patrick Ky, l’EASA est une agence qui est

habituee à prendre des mesures contraignantes. Si cet avis n’était pas obligatoire, une compagnie aérienne pourrait décider qu’il n’y a pas de risque de voler lorsque d’autres s’y refusent.

Cette notion de risque peut différer mais qu’en est-il du passager ? « C’est une question fondamentale et nous devons protéger les passagers », affirme Patrick Ky.

□□□□□

Selon l’eurodéputé Marian-Jean Marinescu, les passagers sont entre les mains des compagnies aériennes. Le responsable des opérations de KLM, Bart de Vries, déclare pour sa part qu’il existe déjà un système mondial.

Une fois que le niveau de menace et de risque a été établi, une compagnie aérienne peut trouver une solution aux restrictions opérationnelles.

Le nouveau système de l’UE fonctionne donc en rassemblant des informations de l’ensemble de ses services de sûreté. « Il s’agit d’une amélioration considérable en termes d’analyse réelle de l’éventualité d’un risque », soutient Olivier Onidi, directeur général adjoint de DG HOME.

L’EASA a des pouvoirs contraignants. « Si les zones de survol sont considérées comme présentant un risque élevé, elles présentent un risque élevé pour tous. »

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Things are improving fast in Nigeria's airfreight market but, as Chukwu Emeke reports, there is still a long way to go.

LOADS OF POTENTIAL...

A significant increase in cargo traffic at Nigeria's airports became noticeable towards the end of last year. Cargo movements grew steadily each month from just over 13.5 million in September to nearly 16.3 million by December.

The total for the year was about 61.4 million, according to the Federal Airports Authority of Nigeria (FAAN) general manager, corporate affairs, Yakubu Dati.

He said: "Some strategic airports in Nigeria, such as Akure, Makurdi, Minna, Abuja, Owerri, Calabar, Ilorin, Jalingo, Jos, Uyo, Kano, Lagos and Port Harcourt have been designated fresh and dry cargo airports, for the direct exportation of fresh agricultural produce from surrounding local communities to markets in Europe, the US and across the world."

Currently, Allied Air, Max Air and Afrijet Airlines are among the few indigenous operators dedicated to cargo flights.

Because most of Nigeria's consumables are imported, many trips made by the country's business community are also now being used to accommodate huge freight volumes – a prospect that has attracted non-Nigerian carriers.



The cargo segments of airlines like Emirates, Qatar Airways, Ethiopian and many others are beneficiaries of Nigeria's air cargo market, which has a liberalised ground-handling sub-sector of four licensed operators.

Courier companies like FedEx and DHL also have a significant market share. DHL Aviation for instance, is the cargo airline with the highest frequency into Nigeria and operates about 44 weekly combined flights in and out of Lagos, Abuja and Port Harcourt.

Saudi Arabian flag-carrier, Saudia, has about the highest volume of cargo into Nigeria, bringing in an average of about 2.5 million kilos of cargo on a monthly basis.

Professionalism in the airfreight business has continued to improve along with training quality, following the emergence of several cargo-handling training institutions to complement the efforts of the Nigerian College of Aviation Technology (NCAT), Zaria.

However, operators say the authorities need to address existing growth constraints.

Kingsley Nwokoma, general manager of Cargolux and



Kingsley Nwokoma wants the authorities to address the challenges of long turn-around time.



Oluropo Owolabi: "All the key players must be considered in any reforms for there to be effective results."

president of the Association of Foreign Airlines Representatives In Nigeria (AFARN) wants the authorities to address the challenges of long turn-around time, unfavourable government policies on cargo and the existence of so many agencies that collect charges and fees. This situation, he argues, turns off investors.

In most Nigerian airports there is insufficient warehouse infrastructure and obsolete cargo-handling facilities, which cause inefficiency in processes and lower quality in cargo operations. This poses a serious threat to security; giving room for pilfering, obsolete screening methods and loss of revenue.

Observers believe that improved security will bring more confidence into the system and reduce such losses.

Adequate parking and lighting facilities are also needed for freighter aircraft at the airports.



Because of the high cost of acquisition and maintenance of ground-handling equipment, granting of waivers on importation of the equipment has become a necessity to minimise costs for handling operators and reduce their service charges, while possibly attracting more investors. The improvement of customs efficiency and airfreight economics will also help the sector thrive.

The government also needs to urgently address the challenges posed by the recent currency crisis – in June it was reported that foreign airlines were halting flights to Nigeria, where a foreign exchange crisis has led the government to limit access to dollars.

Oluropo Owolabi, former managing director of Skyway Aviation Handling Company Limited (SAHCOL), summed up: "For Nigeria to tap into existing opportunities, it will require the proper policies to be in place. It also requires the right strategies in implementation. Having the key players to fully drive the change is important because, that way, it is sustainable.

"Often, it is about being dynamic in policy implementation in ways that will maximise results. All the key players must be considered in any reforms for there to be effective results. Policies must be properly evaluated and implementation must be dynamic. Performance of the overall economy is important in achieving a positive air cargo business sector."

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Rolls-Royce



A Kenyan company sees unmanned aerial vehicles (UAVs), or drones, as the ideal answer to the problem of getting freight – anything from a packet of urgent medicine to a tonne of cargo – to remote locations. Alan Dron reports.

DRONE STAR

«Astral Aviation mise sur les drones»
– Page 42

In the US and Europe, internet giants such as Amazon are keen to start using UAVs to deliver small packages to customers. Assuming regulations allowing them to co-exist with airliners and other aircraft can be agreed, getting those packages through will depend on having a precise delivery address.

In Africa, with its relatively undeveloped infrastructure, pinning down such an address could be a problem. But it's one to which Kenyan freight airline, Astral Aviation, believes it has the answer.

"In Africa, nobody has a physical address, with the exception of a few countries such as South Africa and Kenya," explained Astral CEO, Sanjeev Gadhia. "We still have the old-fashioned PO Box system [for mail] and having a PO Box is really a privilege for the rich and famous.

"What people don't realise, however, is that when they switch on their mobile phone that becomes their address."

That is because most modern smartphones are built around a locator device that connects them to the nearest cell phone mast. And that locator is accurate to a few hundred metres – much less in more modern handsets.

Continued
on Page 42



"The cost of operating drones is a fraction of operating a fixed-wing aircraft – perhaps 10%."
SANJEEV GADHIA

CONTINUED FROM PAGE 41

That is vital in a continent where many regions are still not accessible, even by conventional aircraft.

UAVs are still a new phenomenon in Africa and only South Africa and Rwanda currently have rules in place to regulate their use. However, Kenya is about to introduce similar regulations and Astral wants to start operations as soon as possible thereafter. It has set up a new subsidiary, Astral Aerial Solutions, to handle drone operations.

Gadhia said that Astral intends to use different types of UAV with varying carrying capacities and had already identified several potential candidates, although he declined to go into detail.

These could range from the mini-UAVs that have become so popular in recent years and can carry small packages – something that mail order giant Amazon intends to use – to a significantly larger vehicle with the capacity to carry around one tonne. That could consist of humanitarian supplies or heavy components for the oil and gas industries.

In the latter category, it is closely studying one particular European design that it believes could be ideal for its purposes. One other possible option is to use the US-built Kaman K-MAX helicopter, which can be operated in unmanned mode. This proved its ability in Afghanistan by delivering up to 2.7 tonnes of supplies to isolated military outposts at night, under remote control.



Under Astral's plans, a customer wanting a cargo delivered would contact the airline's control centre with their GPS coordinates and the controller would file a flight plan for the UAV to that point.

"We would deliver cargo to an airport or droneport and inform the customer that we would be taking off and landing at a certain time and agree a charge," said Gadhia.

"On arriving at the destination there would be someone from the client at the designated spot. There would be cameras on the drone so we would know exactly where we were landing. Once we have off-loaded the cargo, we would return to base."

Qualified drone pilots, approved by the Kenyan civil aviation regulator, would be used, he added.

Astral has set aside a budget of \$500,000 to set up its UAV service. This may seem modest but smaller drones are not expensive "I could get five drones for under \$200,000 and the cost of operating them is a fraction of operating a fixed-wing aircraft – perhaps 10%.

I think the low-cost advantage is what will sell drones more than anything else," said Gadhia

Astral plans to construct a drone port. Like the UAVs it will initially use, this would not be expensive. "The famous British architect, Sir Norman Foster, has designed a very fancy, Star

The Astral planes

Nairobi-based Astral Aviation operates four types of aircraft for 'conventional' cargo operations. A Fokker F27 handles loads up to five tonnes, while a McDonnell Douglas DC-9-34F can take three times that weight and a Boeing 727-200, 25 tonnes. Those undertake freight flights throughout east Africa.

The company is also the sole African operator of a Boeing 747-400F, with nose-door loading. Wet-leased from Atlas Air of the US, it makes a twice-weekly trip to London Stansted with perishable goods, continuing to Astral's European gateway at Liège, Belgium, before returning home via Lagos, Nigeria and Douala, Cameroon.

Astral reports that intra-African business is healthy, as it does not attract the attention of the major Middle East carriers that are siphoning off so much African passenger traffic at present.

However, there is over-capacity on long-haul routes to destinations outside the continent. Gadhia estimates that around 5,000 tonnes of cargo capacity departs Nairobi each week, with only 3,000 tonnes of cargo to fill it.

Trek-like facility. I want to meet up with him and tell him he's gone bonkers, because you really don't need a sophisticated drone port, just somewhere to store them overnight and charge their batteries."

Gadhia admitted there was still scepticism over the cargo drone concept, but Astral was already receiving foreign visitors, keen to see how it was preparing for the new venture.

"Especially in Africa, you can see it becoming a very important part of air cargo; you would just have to get [the consignment] to an airport."



A particular use for smaller drones could be getting medical supplies quickly to remote locations: "One reason Ebola spread so quickly was because the authorities weren't able to get the vaccines to the infected areas in time," said Gadhia.

Everyday medical problems would also benefit from such a service: "Typically, it could be where somebody in a village might need medicine very quickly. That medicine might not be in the village but at a district hospital. Getting medicine to the village might take two days by surface transport, by which time the person could be dead. That's very typical in Africa – there are a lot of deaths because medicine didn't reach people in time."

SOMMAIRE

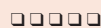
ASTRAL AVIATION MISE SUR LES DRONES

Une société kenyane perçoit les drones comme la réponse idéale pour assurer des opérations de fret dans des régions retirées d'Afrique, que ce soit pour des colis médicaux d'urgence ou des marchandises d'une tonne.

Aux Etats-Unis et en Europe, les géants d'Internet comme Amazon sont enthousiastes à l'idée d'utiliser les drones pour livrer des petits colis à leurs clients. L'adresse postale précise du client est cependant nécessaire pour la livraison. Cela s'avère un problème en Afrique où l'on utilise les boîtes postales. Mais la compagnie Astral Aviation croit avoir trouvé la solution.

«Ce que les gens ne réalisent pas, c'est qu'ils disposent d'une telle adresse quand ils se connectent sur leur téléphone portable», souligne Sanjeev Gadhia, directeur général d'Astral Aviation.

En effet, la majorité des smartphones modernes utilisent un dispositif de localisation qui les relie au réseau le plus proche. C'est vital dans un continent où de nombreuses régions ne sont toujours pas accessibles.

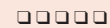


Les drones sont encore un phénomène nouveau en Afrique. L'Afrique du Sud et le Rwanda disposent actuellement des réglementations pour leur utilisation. Le Kenya est sur le point d'en introduire et Astral Aviation souhaite débiter ce type d'opération le plus tôt possible. La société a mis en place une nouvelle filiale (Astral Aerial Solutions) pour gérer les opérations de fret par les drones. Selon Sanjeev Gadhia, de différents types de drones

avec de différentes capacités de charge ont déjà été identifiés.

Les drones peuvent transporter de petits colis légers jusqu'aux marchandises plus lourdes comme des fournitures humanitaires ou des composants lourds pour les industries pétrolière et gazière.

Il existe également une autre option à savoir l'hélicoptère américain Kaman K-MAX qui peut être utilisé en mode sans pilote. Il a prouvé son efficacité en Afghanistan en fournissant jusqu'à 2,7 tonnes de matériel aux avant-postes militaires isolés.



Astral Aviation a alloué un budget de 500 000 dollars US pour mettre en place son service de fret via des drones pilotés par du personnel qualifié. La compagnie envisage également de construire un port spécifique pour les drones. Sanjeev Gadhia souhaite bâtir une structure « moins sophistiquée » et « moins coûteuse ». Il admet cependant qu'il existe encore du scepticisme par rapport à ce concept mais qu'il recevait déjà des visiteurs étrangers désireux de voir comment Astral Aviation comptait développer cette activité de cargo.

L'utilisation des drones s'avèrent être très utile en Afrique notamment pour améliorer les services médicaux et d'urgence, connecter les marchés et encourager le commerce en ligne.



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A new shape may soon be appearing in African skies. The latest generation of airship is about to enter service and the continent is in the sights of one of the first companies to operate the type. Alan Dron reports.

THE SHIPSHAPE OF THINGS TO COME...

It is 80 years since the prospect of huge airships criss-crossing the globe died. A series of fiery crashes, caused by the use of highly flammable hydrogen to provide the vast vessels with the necessary lift, showed the concept was too dangerous. Fixed-wing aircraft ruled the airways from the end of the Second World War.

Since then, there have been periodic attempts to revive airships, but most have floundered. In the 1970s and 80s the Goodyear Blimp appeared over cities, mainly as an airborne advertising hoarding or filming platform. Zeppelin, the most famous name in airships, still has a presence in southern Germany, taking tourists for short scenic trips.



The closest a new-generation airship has come to entering service was another German company, CargoLifter, which proposed a vessel capable of lifting 160 tonnes. This got well down the road towards commercial service in the early years of this century, but eventually ran out of money before production versions could be built.

Now, however, two new-generation vehicles, known as hybrid airships, are about to become a reality. US manufacturer Lockheed Martin is pushing ahead with Federal Aviation Authority (FAA) certification for a successor to its P-791 prototype, which first flew eight years ago. And in the UK, Hybrid Air Vehicles (HAV) is starting flight tests this year with its Airlander 10.

The team behind Airlander reckons that Africa is an ideal region for the vessel.

The need to deliver heavy or bulky equipment long distances in areas that lack road infrastructure could be tailor-made for an airship, it believes.

Curiosity has certainly been aroused in Africa: "We've had genuine interest from both governments and private companies," said Chris Daniels, HAV's head of partnerships and communications.

That interest has yet to be translated into solid orders but the team is hopeful that these will materialise.

There are three specific roles for which HAV sees Airlander as being particularly suitable:

- Border monitoring and surveillance, particularly in North Africa, where there are large expanses of border that are largely unmonitored.
- Transport in the east-west sub-Saharan corridor: "Africa tends to operate on a north-south axis and not to work very well from east to west," said Daniels. "Djibouti is putting in a deep sea port. It's perfectly located to get cargo to places like Juba [in South Sudan], but there's no sensible way of getting heavy trucks across those roads from the emerging deep sea ports around the coast to the interior."
- The mining, oil and gas industries require heavy, bulky loads to be moved to work sites that are frequently remote. Although the current rock-bottom price of commodities has depressed

this sector, it will return once prices start to recover. "That's a big industry for us," said Daniels. There's a lot of lucrative material in the ground and, typically, it's very difficult to get items to and from sites."

Airlander has its origins in a US Army programme for a long-endurance, multi-intelligence vehicle (LEMV), which was intended to provide a persistent surveillance presence, particularly over areas such as Afghanistan.

HAV teamed with US defence major, Northrop Grumman, to develop the LEMV concept and the aircraft first flew in August 2012.



LEMV was terminated in 2013 as part of US defence budget cuts.

The programme was scrapped after the US had spent some \$150 million on it, but HAV was able to buy back the Airlander 10 vehicle for a fraction of that amount.

Returned to the UK, the Airlander 10 underwent almost a year of 'return to flight' work before starting ground testing. HAV is targeting 2019 for certification of the vehicle's production version, following a crash on an early test flight.

After some redesign a successful flight of the Airlander 10 took place in May marking the return to the skies of the world's largest aircraft.

"It was truly amazing to be back in the air. I



loved every minute of the flight and the Airlander itself handled superbly. I am eager to get back into the cockpit and take her flying again,” said chief test pilot, Dave Burns.

Now back in the air, once it has undertaken some 200 hours of flight tests in coming months, HAV is keen to start demonstration flights for potential customers.

Orders for between two and four vehicles would be enough to get the vehicle into

production and HAV hopes to start production next year. “We have a genuine pipeline of prospects with proper, credible, government-backed purchasers,” said HAV CEO Stephen McGlennan. “Hopefully, we’ll begin to announce those in the next few months.”

Dubai company Airships Arabia plans to operate both HAV and Lockheed Martin vessels by the end of the decade in several roles, including tourism and cargo.

The US craft will be three times the size of the P-791 prototype and have a payload of 21 tonnes, plus room for 19 passengers in the cabin beneath the hull.

The UK Airlander 10 has a payload capacity of 10 tonnes but room for up to 48 passengers and HAV has plans for a larger AL50 version, with a payload of up to six standard ISO containers, which will rapidly follow on from the initial model.

HOW THE AIRLANDER STAYS IN THE AIR

Unlike earlier airships the Airlander is, effectively, a flying wing. Around 40% of its lift comes from the vehicle’s aerodynamics, with another 40% coming from the lighter-than-air helium.

Two propulsors – ducted propellers mounted directly in front of vanes whose position the pilot alters to direct the propellers’ thrust – are mounted on the sides of the aircraft, with two more at its rear. A small bow thruster allows manoeuvring at low speeds and when taxiing on the ground. Speed is typically 90kts (160kph).

The hull is made from a three-layered material. The first layer is Vectran, a woven substance that imparts strength. It is backed by Mylar, to retain the helium within the hull, and a Tedlar finish, which protects against ultraviolet radiation and weather. The three-layer material is no thicker than three sheets of 300gsm paper.

Propulsion comes from four 350hp, four-litre engines. The engine block is a Mercedes-Benz V8 vehicle unit, but everything else is bespoke,

manufactured by Austrian company Technify.

The pilot sits at the front of a cabin below the hull, with the passenger cabin – or payload bay when it is being used for military purposes – behind him.

Lockheed Martin’s contender, the LMH-1, will get 80% of its lift from helium, with the remainder coming from the hull’s aerodynamics. It will have four 300hp diesel engines with vectored thrust, cruise at 60kts (110kph) and have a range of 1,400nm (2,600km).

The LMH-1 will have three pads under the aircraft. Known as the air cushion landing system, these can either function in a similar way to hovercraft to allow the vessel to manoeuvre on the ground, or apply suction to hold it more firmly to terrain while loading and unloading cargo.

Lockheed Martin hopes to have the LMH-1 available by 2018. A UK start-up company earlier this year signed a letter of intent for up to 12 LMH-1s, intending to use them to service the hydrocarbon and mineral sectors.



Airships Arabia CEO Gregory Gottlieb believes that a potential use for the craft would be the shipping of perishables, such as the transport of flowers from east Africa to Dubai, where there is a well-established flower distribution centre. This work is typically undertaken by Boeing 747s, but “a 747 bulks out before it weighs out and we wouldn’t. We could pick up a very large quantity both internally or externally.”

Airships Arabia’s initial analysis suggests that the flight from Africa to the Gulf could be accomplished in 24 hours – slower than a jet freighter, but at a fraction of the cost. Airships Arabia would aim not to be a direct competitor with traditional freight or passenger services but, in the early years at least, “to do things that can’t easily be done by current methodology”.

The company is discussing potential partnerships with companies in the Gulf, North Africa and East Africa.



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Customers eye up the all-seeing Mwari

With Paramount Group starting production of its AHRLAC advanced high-performance light reconnaissance aircraft, attention is now switching to the weaponised version, Mwari.

Sam Basch reports.

From 30,000 feet and brimming with optical and electronic sensors, as well as precision strike weapons, the Mwari combines the technology and capabilities of reconnaissance aircraft – or even jet trainers – and attack helicopters all in one aircraft.

This philosophy of a ‘smart’ aircraft is gaining traction with customers of South Africa’s Paramount Group, which showcased the Mwari at IDEX 2017 in Abu Dhabi earlier this year. Growing customer demand is one of the drivers that prompted Paramount and its partners to start production of the AHRLAC unarmed base aircraft at a new state-of-the-art 15,000sqm factory north of Pretoria.

The weaponised version called Mwari, with customised mission systems, is slated to be integrated in a separate facility.

The name ‘Mwari’ translates as ‘all-seeing being’ in the African Shona language. For Paramount, this translates into a versatile, low-cost platform with intelligence gathering and precision strike capability.

The company argues that it carries the same surveillance, targeting, defence and attack capabilities normally associated with larger class and significantly more expensive aircraft.

This heightens the Mwari’s attractiveness in the market, especially in regions where the complex threats of terrorism, insurgency, piracy and asymmetric warfare remain pervasive.

Ivor Ichikowitz, founder and executive chairman of Paramount Group said: “With geo-political uncertainty set to continue, and countries needing to control and secure their borders, there has never been a more crucial time for governments to provide affordable security and stability to their countries.”

Small wonder, then, that Paramount is reportedly discussing with some Middle East countries the option of establishing a factory “with the UAE, in particular, in mind as an ideal environment for production collaboration”, the company stated.

“The region is moving away from acquiring equipment from traditional sources and focusing strongly on developing technology,” Ichikowitz explained. “In the face of global

political and economic instability, we’re also seeing a transition towards affordable defence solutions as governments hope to provide their citizens with sustainable security.”

He cited the Mwari’s significant advantage of low acquisition and operating costs, claimed to be less than \$1,000 per hour, in addition to low maintenance costs. Importantly, during remote operations, the aircraft also requires very little ground support.

Able to operate from improvised airstrips, taking off with full payload in 1,800 feet to a maximum operating ceiling of 31,000 feet, the aircraft is a smart, innovative ‘command centre in the sky’. It integrates some of the world’s most advanced multi-function displays, electro-optical systems, electronic intelligence gathering and compact sensory equipment.

It has a total of 26 hard points for electronic targeting pods, communications, self-protection systems and sophisticated precision strike weapons, including cannon, rockets and Mokopa missiles. This enables Mwari to execute surgical strikes against targets of opportunity, while minimising the risk of collateral damage.



While Paramount is driving its own international traffic in arms regulations (ITAR)-free weaponisation programme, a partnership agreement was announced last year in which Boeing is developing an integrated intelligence, surveillance, and reconnaissance (ISR) and light strike mission capability system for the Mwari programme.

The aircraft’s real time airborne intelligence capability is further enhanced by its high wing, tandem stepped-seat configuration and fully night-vision-compatible cockpit, with significant all-round and forward visibility. Options include Martin Baker ejection seats.

A Pratt & Whitney PT6-66b 950hp flat rate pusher-prop powers the aircraft to a maximum speed of more than 270 knots. With a seven-hour-plus endurance, the Mwari is the ideal solution for persistent patrolling of large land and sea areas, and, notably, country borders.

The aircraft boasts a highly flexible payload system, including a conformal mission bay beneath the stepped cockpit, to rapidly transform the intelligence-gathering equipment for mission-specific roles.

The company has undertaken the full spectrum of required flight tests since 2014, including night flights and hot weather trials in South Africa’s Northern Cape province and Botswana, where it performed heat soaks and flights at midday in “exceptionally” hot conditions.

For Ichikowitz, the interest in Mwari as experienced at IDEX, was “phenomenal”, which drives his point: “In an era of asymmetrical conflicts, the Mwari is a game changer. We aim to present our customers with the best defence solutions possible and now, with the Mwari as the latest addition to Paramount Group’s products, we can promote an unrivalled portfolio across the defence and aerospace sectors.”

The weaponised Ahlac variant – the all-seeing Mwari.



Trump deals a new hand in east Africa

The US is entering a new chapter of its military interventions in east Africa.
Jon Lake
reports.

US President Donald Trump has approved a mission proposal from the Pentagon that will allow the US Africa Command (AFRICOM) to provide additional support for the African Union mission in Somalia (AMISOM) and the Somali Government forces as they strive to defeat Islamist al-Shabaab – a fundamentalist Salafist jihadist terrorist organisation that has pledged allegiance to Al Qaeda.

The president signed a directive designating part of southern Somalia as an “area of active hostilities” for the next six months. This will allow AFRICOM greater freedom of action in its operations in this area, including more aggressive air strikes.

President Trump is understood to have reacted to a request by General Thomas Waldhauser, the head of AFRICOM, who reportedly requested additional authority in giving the command greater flexibility, autonomy and timeliness when making decisions to prosecute targets, allowing commanders to conduct operations without having to consult the White House for each mission.

US Forces are also expected to step up the scope, scale and intensity of their operations against Al Shabaab, moving further away from the Obama administration’s policy of only allowing defensive operations, and missions in support of AMISOM. Some see this as an indication that the US has finally overcome its reluctance to intervene in Somalia, following the 1993 battle of Mogadishu (immortalised in the book and movie ‘Black Hawk Down’), which saw the loss of multiple UH-60 Black Hawk helicopters and 19 US dead, and a humiliating early withdrawal by the remaining US force in March 1994.

Since then, the US has avoided large-scale direct intervention in Somalia, though since 2007, American

forces have been targeting Al Shabaab and its leaders under Operation Octave Shield and the little-known Operation Juniper Garrett.

These operations have seen Joint Special Operations Command (JSOC) elements, including the 160th Special Operations Aviation Regiment’s helicopters, F-15E Strike Eagles and even AC-130H Spectre gunships attacking terrorist targets.

Manned and unmanned intelligence, surveillance and reconnaissance (ISR) aircraft have also played a major part, including P-3C Orions, Cessna U-28As, and a plethora of contractor-operated types as well as MQ-1 Predators, and MQ-9 Reapers, operating from bases in Djibouti, Ethiopia, and Kenya.

Al Shabaab grew out of the Islamic Courts Union (ICU) following defeat by Somalia’s Transitional Federal Government (TFG) and its Ethiopian military allies in 2006, during the long-running (and on-going) civil war, which saw a gradual shift in the nature of the struggle from being between rival clan warlords and a weak central government to being an Islamist insurgency.



The US Army Special Operation’s Command’s official magazine described Al Shabaab as “Al Qaeda’s foremost African franchise” in its January-March 2017 edition, and assessed that: “Although the group has likely been pressured by key territorial and leadership losses since mid-2015, its operational tempo has been mostly unhindered.”

Al Shabaab continues to present a major threat to Somalia itself, and to the surrounding region – as was demonstrated during 2013, when terrorists attacked Nairobi’s Westgate shopping mall in neighbouring Kenya.

Perhaps even more worryingly, Al Shabaab is known to have contact with other African Islamist groups, including Al Qaeda in the Islamic Maghreb (AQIM) in north Africa and Boko Haram in Nigeria.

Though Somali and AMISOM forces have already achieved what the Pentagon has described as: “significant success in recapturing territory from Al Shabaab”, the magazine judged that: “The nascent Somali National Army (SNA) continues to lack the will and capacity to combat the group unilaterally and the Somali Government continues to have little influence outside the capital.”

The SNA’s weaknesses include an extremely unrepresentative structure with regard to regions and clans, although Somalia’s own security forces will have to assume responsibility for defending the nation by the end of 2020, when the existing 22,000-strong African Union AMISOM force stands down.

But, for the time being, the Kenyan and Ugandan forces that form the backbone of AMISOM are indispensable, together with the force elements from Burundi, Djibouti, and Sierra Leone, and the Ethiopian forces, which are nominally part of the mission, but which operate independently from the rest of the AMISOM force.

A Ugandan AMISOM soldier guards a Hercules in Somalia.

Inset: AMISOM troops in Somalia.



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Leonardo's C-27J is the most effective multi-mission airlifter available on the market and it represents the ideal solution for highly demanding operational theatres: transport of troops and materials into hot zones close to the frontline; C3-ISR (Command, Control, Communication, Intelligence Surveillance and Reconnaissance); Special Forces operations; Fire Support with a gun pallet; Maritime Patrol/Search and Rescue; humanitarian assistance and natural disaster relief support roles.

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Over the past decade, the Senegalese military has been immersed in an unprecedented modernisation effort, which has allowed for a complete overhaul of the Army equipment and Navy fleet. Although the Senegalese Air Force (SAF) has also benefited, it still has a number of outstanding requirements, which Dakar is now moving ahead to fulfil. Erwan de Cherisey reports.

Senegal sees strength

So far, Senegal has been primarily focused on rebuilding a strong air transport capability. The legacy fleet of Fokker F-27-400s, which had been procured in the 1970s, is being replaced with CN-235-220s manufactured by Indonesian Aerospace.

A first batch of two second-hand aircraft was received in 2010, while a single CN235-220M, bought new from factory, arrived in January 2017. The aircraft was immediately rushed into service to support the then on-going deployment of the Economic Community of Western African States' (ECOWAS) troops in the Gambia.

Senegal is intent on purchasing additional aircraft, with Airbus Defence & Space's C295W being a favourite, as the need for heavier transports to support deployments abroad with the United Nations (UN), and to improve in-country transport capabilities, becomes more acute.

Air mobility is also being expanded. While, in the 1980s, Senegal flew three Sud-Aviation (now Airbus Helicopters) SA330 Pumas as its primary medium helicopters, crashes throughout the decade meant that, by the 1990s, the air force no longer possessed a rotary-wing medium-lift capability. The 2000s brought a modest revival with the donation of two Mi-2s from Libya, both of which were pressed into service as medical evacuation aircraft, and the

delivery, in 2005, of two new Mi-171Shs and a pair of second-hand Mi-35Ps. Spain also contributed by donating a single Bell UH-1H, which has now been withdrawn from use.

The Mi-171s brought a major expansion to the troop transport and logistics capability and, with Senegal's decision to expand its commitment to UN peacekeeping operations by also deploying aircraft, a third Mi-171 was procured. The type saw service with the United Nations Operation in Côte d'Ivoire (UNOCI), where Senegal deployed two helicopters in support of a battalion-sized quick reaction force (QRF) manned by Senegalese Army troops.



More recently, in January 2017, at least one Senegalese Mi-171 was deployed to the Gambia in support of the ECOWAS operation undertaken to remove President Yahya Jammeh from power.

The Mi-35Ps provided Senegal with a significant boost in terms of combat capability, as the country's first dedicated attack helicopters. In November 2015, both aircraft deployed to the Central African Republic, under the banner of the United Nations Multidimensional Integrated Stabilisation Mission in Central Africa (MINUSCA),

providing the UN force with its first dedicated air support component.

Both aircraft were modernised with the integration on each helicopter of an Israeli-made Controp Precision Industries DSP-HD electro-optical infrared (EO/IR) surveillance payload.

On February 11, 2017, one of the Senegalese Mi-35P destroyed several rebel vehicles from the former Seleka coalition, which were heading for the town of Ippy, north of Bambari.

In order to further expand its attack capabilities and ensure the sustainability of its contribution to MINUSCA, the Senegalese Air Force has purchased a further three Mi-24Vs from a Polish company.

The aircraft, which previously served with the Slovak Air Force, were overhauled by Poland's Wojskowe Zakłady Lotnicze N°1 (WZL-1: Military Aviation Works No 1), with the first example being formally inducted into service by the Senegalese Air Force's chief of staff, Brigadier General Birame Diop, at Dakar, on February 16, 2017.

At least one of the Mi-24Vs is to deploy with MINUSCA to supplement the Mi-35Ps, while the remaining two are to remain in Senegal, where they will allow aircrews to train and prepare for future deployments. They are also to serve as a reserve force should air support be required as part of security operations conducted in the



The Senegalese Air Force has procured three second-hand Mi-24Vs in Poland which have been overhauled by WZL-1.

Left: This CN235-220M delivered to Senegal in January by Indonesian Aerospace is the latest addition to Dakar's fixed wing fleet.

in modernisation plan

region of Casamance, in the south of Senegal, where separatist forces remain active.

VIP transport capabilities have also been expanded in the last few years, with the delivery, in 2013, of a single Leonardo AW139 helicopter, which is used to transport government authorities.

Senegal has also made efforts to expand its air force's training capabilities. The Aviation School of Thiès is being expanded as Senegal seeks to establish itself as a regional centre for the training of military pilots and technicians.

As Colonel Abdoul Ndiaye, spokesman for the Senegalese Ministry of Defence, explained, a forum of western Africa's chiefs of air staff was hosted by Senegal in early 2017 with the aim of discussing training cooperation and assistance, with Senegal proposing to receive foreign trainees at Thiès. Currently, the school has a single Socata R235 and six Socata TB-30 Epsilons for fixed-wing training. The latter were donated by France in two successive batches, as part of a bilateral cooperation effort.

Helicopter training is completed on a pair of Bell 206B-3s.

Senegal has already set plans in motion to modernise its training capability, with the procurement of four KAI KT-1B training aircraft from South Korea. The contract was made public in July 2016.

On February 9, 2017, Diop undertook a visit to Pakistan to discuss training cooperation. The visit included a meeting with the chairman of the Pakistan Aeronautical Complex (PAC), which produces the Super Mushshak training aircraft that has been recently pressed into service by the Nigerian Air Force.

While no purchase was concluded at the time, it is very likely that the type is being considered by Senegal as suitable to supplement its future KT-1B in the training role. With Pakistan aggressively promoting the type on the export market and offering attractive procurement conditions to potential customers, the likelihood of a sale to Senegal is high.



Following the withdrawal of its Fouga Magister light attack fleet, Senegal was left with only a token fixed-wing air combat capability through its surviving Socata R235s. However, with only one aircraft still in service in the training role, that has now disappeared.

Dakar has been looking at rebuilding a combat fleet for several years now. Indeed, in 2013, the procurement of a batch of three Embraer EMB-314 Super Tucano attack planes was announced. However, as of 2017, the deal had not materialised.

While the KT-1Bs are capable of carrying underwing stores, which include machine-gun pods and rocket launchers, Senegal is understood to be seeking a more significant air combat capability that could extend to fighter jets. The topic is not one that Senegalese officers are eager to discuss.

However, the February 2017 visit of Diop to Pakistan also included a meeting with his Pakistani counterpart, who presented him with a painting of the JF-17 Thunder with Senegalese and Pakistani flags. The JF-17 is a light supersonic fighter jet currently manufactured by PAC, which has recently scored several export sales, most notably in Nigeria.

Pakistan is also making significant efforts to secure additional exports and, while no details have been given about Senegal's potential interest in the type, a Senegalese military source acknowledged that the country has not ruled out supersonic fighter jets as an option to meet the air force's current requirement for a dedicated fixed-wing combat fleet.

Senegal has other pending projects, one of which is the strengthening of its maritime surveillance capabilities with the purchase of a single CN-235-220MPA. It is also likely that, in the more distant future, Dakar will consider the purchase of new light multipurpose helicopters to supplement or replace its current Bell 206s as well as its single surviving SE3160 Alouette III.



New and used A-29s for Nigeria

Nigeria has been trying to procure an armed counter-insurgency aircraft with an extended loiter time for some years, primarily for use in its long-running campaign against Islamist Boko Haram insurgents.

The Nigerian Air Force's (NAF's) recent combat experience has convinced it that it needs intelligence, surveillance, and reconnaissance (ISR) and close air support (CAS) capabilities in a single platform, in order to be able to detect, locate, identify and immediately engage fleeting targets.

NAF Chief of Air Staff, Air Marshal Sadiq Abubakar, has said that Nigeria considered the Embraer Super Tucano to fulfil this requirement in 2015 and that funding was allocated in the 2016 budget.

The plan to acquire an unspecified number of Super

Tucanos from the United States was announced in June 2016, after President Muhammadu Buhari's military and anti-corruption reforms helped to convince the US that its early objections could safely be put aside.

The planned \$600 million sale of 12 Embraer A-29 Super Tucanos (to be assembled by Sierra Nevada in Florida) was reportedly put on hold in January, after a NAF fast jet bombed a refugee camp at Rann, near the border with Cameroon, killing between 100 and 236 civilians and aid workers.

The proposed sale was soon back on, however, fast-tracked by the incoming Trump administration, which promised to "cut a new deal in helping Nigeria in terms of military weapons to combat terrorism".

The new president has expressed his enthusiasm for supplying weapons to nations that are fighting Islamist insurgency and terrorism, while the supply of Sierra Nevada-assembled aircraft also promises to sustain high-value US jobs.

Congress was expected to receive formal notification of the sale before the summer, but while waiting for the US sale to be approved, the Nigerian Air Force announced on February 9 that it is acquiring an interim batch of three Embraer EMB-314/A-29 Super Tucano turboprops from the Brazilian Air Force.

The NAF said that Embraer had confirmed that the Brazilian Government had authorised the Brazilian Air Force to transfer the three aircraft to the company for onward delivery to Nigeria.

Libyan 'Floggers' are back in service

By the time the Libyan civil war broke out in 2011, the old Libyan Arab Republic Air Force had retired its ageing MiG-23BN 'Flogger-H' fighter-bombers and the surviving aircraft were placed in storage. A handful were returned to flying status by the Libyan rebels, and one was lost to friendly groundfire, but post-war, the type was again withdrawn, with efforts and funding being devoted to keeping a small force of MiG-21s and radar-equipped MiG-23MF and MiG-23ML fighters operational.

In the second Libyan civil war, which broke out in May 2014, after the 2014 elections, both sides initially operated small numbers of MiG-23 fighters, in addition to other types.

□ □ □ □ □

The two sides in the war were the Libyan National Army under the command of General Khalifa Haftar, which took its orders from the House of Representatives (HoR) government in Tobruk, and a coalition of militias supporting the rival General National Congress (GNC) government, also known as the 'National Salvation Government', and based in the capital, Tripoli.

Supported by the UAE and Egypt, the Tobruk government enjoys some international recognition as the 'Libyan government', while the rival GNC Government (supported by Qatar, Sudan and Turkey) was succeeded by a UN-supported unity 'Government of National Accord' (GNA).

The Libyan National Army Air Force (LNA/AF) has suffered heavy attrition, and lost the last surviving example of the MiG-23ML in January 2017, the last of five losses. Two pilots were killed.

To augment the dwindling fleet of fighter 'Floggers' LNA/AF technicians have refurbished stored MiG-23BNs, returning them to service with the 1070th Squadron.

The first two re-entered service in April and May 2016, but the first aircraft was lost in July 2016. Another was returned to service in February 2017. This was followed by one more, and a two-seat MiG-23UB, bringing the Libyan MiG-23 fleet to four aircraft.



One of the four
Libyan MiG-23Bs.

Burkina Faso deploys DA42 in the fight against terror

Islamist militancy continues to grow in the Sahel and, over the last two years, this has posed a growing threat in Burkina Faso.

Al-Qaeda in the Islamic Maghreb (AQIM) and Al-Mourabitoun are extremely active in neighbouring Mali and have undertaken attacks in the Burkinabe capital, Ouagadougou. Also, a new, home-grown movement, Ansarul Islam (Defenders of Islam), has recently emerged in northern Burkina Faso.

There have been some suggestions that Ansarul Islam may include former members of the elite Régiment de la Sécurité Présidentielle (RSP), established by

former President Blaise Compaore, giving it a higher degree of military expertise.

Fortunately, the Burkinabe military has gained useful combat experience and counter-insurgency through its participation in international interventions in Liberia and elsewhere in Africa, and has recently become a member of the Trans-Sahara Counterterrorism Partnership (TSCTP).

The regular Army is augmented by the Gendarmerie Nationale, which is organised along military lines and which operates under the authority of the Minister of Defence, and the two forces jointly contribute to the

dedicated Groupement des Forces Anti-Terroristes (Anti-Terrorist Forces Group) that was created in 2012 to secure the northern border with Mali and to prevent infiltration by militants and insurgents.

The Burkinabe military has reinforced its forces on the border with Mali after an attack in December killed 11 army soldiers and a gendarme, and forced a fighting withdrawal.

A Diamond DA42 intelligence, surveillance, and reconnaissance (ISR) aircraft and other Burkinabe Air Force assets have been deployed to Dori airstrip in the north of the country for counter insurgency operations.



A Diamond DA42 intelligence, surveillance, and reconnaissance (ISR) aircraft.

US air advisors aid Burundi

Burundi has experienced political instability since President Pierre Nkurunziza was inaugurated for a controversial third term in August 2015, and it briefly looked as though an African Union or UN peacekeeping force might have to be deployed.

There is an underlying threat from terrorism and there have been a number of grenade attacks since May 2015.

Al Shabaab has made public threats against Burundi because of its energetic support for the African Union peacekeeping mission in Somalia.



The Burundi National Defense Force requested help in moving cargo in support of the African Union Mission to Somalia and the US Air Force dispatched Air Mobility Command's 818th Mobility Support Advisory Squadron to Bujumbura, Burundi. The unit is tasked with building partner capabilities, and focuses on training, advising, and assisting partner nations in developing air mobility capabilities in locations where operational support is insufficient or non-existent.

The 818th aimed to help build the Burundi National Defense Force's capacity to conduct aerial port operations. Its personnel provided classroom and hands-on instruction in cargo preparation and aircraft load planning.

The USAF expected the mission to take two weeks, but found the Burundis already well prepared and the expected two weeks became a five-day mission.



New lease of life for surviving Niger Herc

The predecessor of the Niger Air Force, the Escadrille Nationale du Niger (Niger National Escadrille) took delivery of two new C-130Hs in 1979, and became the Groupement Aerien National (National Air Wing) in 1989.

One of the two Hercules was lost in a fatal accident at Niamey Airport in 1997, but until now, funding constraints have prevented a replacement from being procured.

The surviving Hercules is augmented by a pair of Cessna Caravans and a pair of Dornier Do228s, and a single Boeing 737-200, though the Caravans are understood to have a primary intelligence, surveillance and reconnaissance (ISR) role.

The C-130 is mainly used to fly provisions to forward Army units engaged in the campaign against the Boko Haram insurgent group. Truck convoys take

too long to get to these units and are vulnerable to bandits and terrorists.

In November 2015, the US offered Niger an ex-US Air Force WC-130H Hercules aircraft under its excess defense articles (EDA) programme.

The aircraft was previously operated by the Puerto Rico Air National Guard's 156th Airlift Wing and is valued at \$12.7 million. It would be converted back to standard transport configuration, if and when accepted by Niger.

Last year, Niger did accept a US offer of a C-130 wing set, valued at \$265,540. This is assumed to be to allow the air force's existing Hercules to be re-winged as part of a mid-life upgrade. The aircrew have undertaken training with combat aviation advisers from the USAF's 6th Special Operations Squadron, and closer links are being forged.

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The business aviation industry came together in Geneva in May for the European business aviation show, EBACE.

Attracting exhibitors and delegates from around the world, Alan Peaford was there to report on the highlights.

Images by Billypix



Africa knocking on the door of opportunity

Open door to Africa, from left: Segun Demuren, Nuno Pereira, Gavin Kiggen, and Rady Fahmy.

The doors opened on more than Geneva's Palexpo on the first day of the EBACE show – they opened on Africa as well.

That was all thanks to an initiative by AfBAA, the continent's business aviation association, with its first Access Africa event.

"One of AfBAA's guiding principles is to raise awareness of the continent's potential," said CEO Rady Fahmy. "We were aware that many European companies are interested in developing African business but don't necessarily have the information they need to hand. Access Africa was all about providing tangible, practical information to support these endeavours," he said.



During the 90-minute session, delegates were transported to Africa through a trio of concise presentations from leading African business aviation experts – Segun Demuren from Nigeria's EAN Aviation, Nuno Pereira from Angola's Bestfly, and Gavin Kiggen of ExecuJet South Africa.

They outlined local issues, shared anecdotal experiences, and detailed what works and,

importantly, what does not; as well as highlighting the points to consider when taking the first steps into Africa.

"It worked really well," Fahmy said. "The informal nature of the forum was designed to stimulate frank discussion, open questioning and interaction to address key concerns from the audience – and it was very effective."

AfBAA also used EBACE to launch its own business aviation event, AfBAC Expo, Africa's first dedicated business aviation conference, exhibition and static display. It will take place in Johannesburg, South Africa from November 29 until December 1, 2017.

"We have achieved much in five years but we know there is still much to do as our journey has only just begun," said AfBAA founding chairman Tarek Ragheb.

"We recognise that aviation in Africa doesn't work in global or commercial isolation, which is why we are launching AfBAC Expo at EBACE. We want to bring together international professionals to share experience and knowledge in a dedicated environment. With Europe's strong connections to the continent, we're hoping to garner a lot of interest during EBACE," he said.



Vision is realised

The world's first personal jet achieved its European approvals at EBACE. The Cirrus Vision SF50 made its debut at the show. The five-passenger jet – complete with parachute – already has 600 customers awaiting delivery. The company took a model to Africa Aerospace and Defence (AAD) last September and, hopefully, the real one will fly into Africa soon.

Supersonic solutions

The supersonic business jet, the Aerion AS, came another step closer to reality at EBACE. For many years, the company has said the engine would be key to the programme's viability. At the show, Aerion announced that it would be working with GE to study engine development for the three turbofans that will power the Mach 1.5 jet. Thrust requirements, noise limitations, technical support, fuel consumption and cost are the key issues to be resolved.



Splashing out on a Lineage

Embraer has a world first in cabin interiors – the first ever two-person shower.

Fitted on a Lineage 1000E, it is a short step from the aircraft's queen size bed. The company's vice-president of interior design, Jay Beever, said: "The idea is not to be racy, but more to understand it is more spacious than other on-board showers."

Piper's flagship M600 makes its debut.



TURBOPROPS SHINE IN THE BRIGHT LIGHTS

The 'lights' were certainly turned on at the EBACE show. Recent changes in European regulations mean that single-engine turboprop (SETP) aircraft can now fly in instrument meteorological conditions and at night carrying fee-paying passengers.

"Customers have always looked askance at the idea of single engines," said Marwan Khalek, group CEO of Gama Aviation, "but the situation may be changing."

And, judging by the aircraft on the static, it is changing fast.

American manufacturer, Piper, was there with its new M600 Turboprop, which received its European Aviation Safety Agency (EASA) certification at the show. Jacqueline Carlon, Piper's marketing director, said the company was pitching the

six-seater to corporate flight departments and charter/air taxi operators.

"The cost base comes right down," she said. "It makes it sensible to have an M600 alongside larger jets for the shorter flights with just three or four passengers."

Daher was showing not one, but two, new variants of its TBM 900 model. These were the TBM 910 and the TBM 930; the pair really pack a punch with speed comparable to that of a jet.

Pilatus boss, Oscar Schenk, was adamant that his market-leading PC-12 would not be standing idly by as the new entrants snap at his heels; particularly as Cessna's SETP, the Denali, is now seeing parts manufactured for the first test article. "You will have to wait and see. We will be ready," he said.



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Lufthansa Technik was impressing operators with its latest innovation. A newly certified induction cooking platform was on show, demonstrating how business jet crew can cook bacon and eggs, fresh steak and stir fry, safely in the galley area. The units are now in serial production and will be ready for early 2018.

Corporate A380?

It's been a long time coming but the world could soon have its first Airbus A380 corporate jet. Swiss-based Sparfell Associates has been given a mandate to offer a number of A380s for conversion to VVIP aircraft. Working with designer, Andrew Winch, the superjumbos will feature an upper floor "head of state" configuration complete with bedrooms, showers and private offices and lounges, while the lower deck will have an airline configuration for the entourage.

Neo look

Airbus launched a corporate jet version of its A330neo at the show. Capable of flying 20 hours with a 9,400nm range – able to link Lagos with Sydney – this VVIP aircraft includes a conference/dining room, bedroom, and private office and still has room for seats for staff. It can fly 25 passengers.



LONG GOOD FLY DAY

Textron Aviation's Cessna Citation Longitude successfully crossed the Atlantic in order to show the fourth test aircraft, fully fitted with production interior, to the market. It was no mean feat. Because of rules regarding experimental aircraft, the Longitude had to plan a longer route that it will take when certified later this year as its 3,500nm range will deliver non-stop transatlantic crossings. The new super-midsized Cessna flagship will carry a maximum 12 passengers in a cabin with a stand-up flat floor and a cabin altitude of less than 6,000ft.



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Les drones au service des enfants au Malawi.

Le Malawi a lancé un couloir aérien réservé aux drones pour lutter contre le sida en partenariat avec l'Unicef à Lilongwe en décembre dernier. Vincent Chappard nous explique comment la technologie peut être au service de l'humanitaire.

Un couloir aérien pour les drones au Malawi

Ce projet vise à répondre aux besoins urgents lors des crises humanitaires, à approvisionner en sang les malades du sida vivant dans des zones retirées et à dépister la maladie chez les enfants.

Selon Johannes Wedenig, représentant de l'Unicef au Malawi, notre objectif principal est d'aider les enfants. Les drones ont donc un grand potentiel dans divers secteurs dont l'humanitaire. « Cette étape est importante pour le Malawi et un bond en avant pour la technologie des drones. »

Le Fonds des Nations Unies pour l'enfance va tester ces engins volants sur ses opérations sur le terrain surtout dans la lutte contre le sida qui touche plus d'un million de

Malawites soit 10% de la population active. C'est l'un des taux les plus élevés au monde.

« Nous testons la faisabilité de compléter le système de transport pour réduire le délai entre le moment où un échantillon est pris sur un enfant et le moment où il est testé pour le VIH par un laboratoire », explique Judith Sherman, directrice du programme sida/VIH.

Selon l'Unicef, il faut actuellement 11 jours pour transférer un échantillon de sang d'un centre de santé à un laboratoire et plus d'un mois pour transmettre les résultats aux patients.

Jappie Mhango, le ministre des Transports et des Travaux publics a qualifié ce couloir aérien de « particulièrement important pour assurer la collecte et le transport des données dans des endroits où les infrastructures de transport terrestre ont difficilement, voire pas du tout, accès en cas d'urgence ».

Par ailleurs, ces drones pourront être utilisés dans les domaines du transport et de l'agriculture pour surveiller les récoltes ou évaluer les dégâts des inondations. Selon des propos du directeur de l'aviation civile, Alfred Mtiratila, ce projet permettra aux autorités malawites de déterminer le modèle approprié pour répondre aux besoins du pays.

Cet Etat d'Afrique australe emboîte ainsi le pas au Rwanda qui a lancé les projets Red Line et Zipline. Les drones y sont utilisés pour livrer des médicaments, des vaccins et des poches de sang dans des zones éloignées ou enclavées.

Long de 40 kilomètres, ce premier couloir aérien devrait accueillir les essais en avril. Il couvrira principalement les communautés rurales autour de la capitale. Les drones seraient déployés dans d'autres zones dépendant des résultats.

Après la téléphonie mobile, l'Afrique semble s'ouvrir à la révolution des drones pour l'accompagner dans son développement futur.

SUMMARY

AIR CORRIDOR FOR HUMANITARIAN DRONES

Landlocked east African country Malawi, in partnership with the United Nations International Children's Emergency Fund (UNICEF), has launched an air corridor specifically for drones to help in the fight against AIDS.

The project aims to meet urgent humanitarian needs in several ways, including supplying blood for transfusion and to assist with childhood screening programmes.

According to UNICEF, the main goal is to help children in crisis. The charity will use the drones in its field operations, especially the fight against AIDS, a disease that affects more than a million Malawians, representing around 10% of the working population.

The system is designed to cut the time between a sample being taken from a child and the lab test. Currently, it can take up to 11 days

to transfer a blood sample from a health centre to a laboratory and more than a month to pass the results back to patients.

Jappie Mhango, Malawi's Minister of Transport and Public Works, describes the air corridor as being particularly important for collecting and transporting data in places where the surface transport infrastructure provides little or no access.

The drones can also be used to monitor crops or assess flood damage and, according to the country's director of civil aviation, Alfred Mtiratila, the project will enable the national authorities to determine the appropriate model to meet the needs of the country, now and in the future.

The first 40km air corridor, covering rural communities around the capital city of Lilongwe, is expected to begin testing in April.



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Although the International Civil Aviation Organization (ICAO) targets 2018 to publish standards and recommended practices (SARPs) for the certification and operations of drones, interest in their civil and military use in Nigeria has continued to increase. Chukwu Emeke reports.

Nigeria zones in on drone regulation

The level of interest in unmanned aerial vehicles (UAV)/remotely piloted aircraft (RPA) gained prominence when, in December 2013, Nigeria's then president, Goodluck Jonathan, unveiled the country's first indigenous UAV, codenamed GULMA.

It was designed and constructed by the Nigerian Air Force (NAF) at the base in Kaduna.

Speaking during the unveiling ceremony, he congratulated the air force, saying that the achievement marked a turning point in indigenous technological development in Nigeria. He urged the private sector to key into the NAF breakthrough in order to achieve a high level of mass production and the highest and best commercial use of the prototype UAV.

The need for UAVs has increased for Nigeria at a time the nation is diversifying its economy. Drones can be deployed for disaster management, power line survey, telecommunication, weather monitoring, news coverage, oil and gas exploration, aerial imaging and mapping.

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"The development of the use of RPA nationwide has emerged with somewhat predictable safety concerns and security threats. Therefore, with the preponderance of these operations, particularly in non-segregated airspace, there has to be proactive safety guidelines," said Nigerian Civil Aviation Authority (NCAA) spokesman Sam Adurogbeye.

He revealed that, by early 2016, some RPA/UAVs had been deployed for commercial and recreational purposes in the country without adequate security clearance, stating

that the NCAA had put in place a regulating advisory circular to guide the certification and operations of civil RPA in its airspace.

"No government agency, organisation or individual will launch an RPA/UAV in the Nigerian airspace for any purpose whatsoever without obtaining a requisite permit from the NCAA and the office of the national security adviser (ONSA)," he said.

"In addition, operators must ensure strict compliance with the condition stipulated in their permits and the requirements of Nigeria civil aviation regulations (NCARs)."

Adurogbeye added that violators would be sanctioned according to the dictates of NCARs.

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Engineer Ifeanyi Ogochukwu, of the safety directorate of the Nigerian Airspace Management Agency (NAMA), said the regulation of drone operations in the country had become an emergency because of the security threat capabilities of the technology.

Another expression of the government's commitment to UAV regulation occurred on November 21, 2016 when ONSA, in collaboration with the NCAA, held a one-day stakeholder meeting to articulate the use of UAV/RPA in Nigerian airspace.

Discussions centred on safety implications, risk assessment, oversight, regulations and certification.

NCAA director general, Captain Muhtar Usman, recently took steps to establish an RPA/drones safety team, which will help to develop recommendations to assist his organisation in creating an RPAS registration system in the shortest possible time. This would also help connect an RPAS with its operators in cases where people were not following the rules.

The RPAS advisory committee, to be overseen by NCAA's Directorate of General Aviation, is also to help prioritise RPA integration activities, including development of future regulations and policies.

The first regulation for routine RPA use took effect in 2015. According to the NCAA, a new regulation that will put a limit of 25kg as the allowable weight limitation for civil drones in the country will be made public by 2017, providing an important regulatory foundation for allowing additional weight categories in future, to be followed by proposed rule on RPA operations over populated areas.

The announcement by the United States military, in September 2016, for plans to build a \$100 million drone base near Nigeria, particularly in Agadez, central Niger, to help the west African country combat militant groups and protect its borders, could be an added emphasis on the importance of strengthening UAV regulation in Nigeria.

Nigerian operators warned to comply with new RPAS regulations.





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Airports Council International (ACI) is offering a free review service for its members, which ends in a 100% confidential report on airport safety vulnerabilities. Victoria Moores spoke to ACI Africa secretary general, Ali Tounsi, to learn more about the programme.

CHECKS WILL HELP SAFETY HIT THE APEX

When something is wrong, it is a good idea to seek confidential advice so any problems can be identified and treated. And when those health worries affect aviation safety, seeking those answers can literally be a matter of life and death.

In 2011, ACI picked Africa as the launch region for a new 'airport excellence (APEX) in safety' programme, where airport executives review one another's operations and give feedback on potential safety improvements. The information is then compiled by ACI and detailed findings are presented back to the host airport.

"It started as an African programme and now it's worldwide, because even very big airports need an external review covering safety and so on," explained ACI Africa secretary general Ali Tounsi. "The idea is like Médecins Sans Frontières (Doctors Without Borders). It's free. It's done on a volunteer basis, with no cost."

Lomé in Togo hosted the first APEX review. Tounsi said the airport has since become a reference point and, in 2016, it was recognised by ACI as having achieved the most significant safety improvement among African airports.

Airports put themselves forward to be reviewed and only have to pay travel and hotel expenses for the visiting assessors. Even this minimal cost is sometimes waived, because

the European Aviation Safety Agency (EASA) sees so much value in the project that it is sometimes willing to pay the experts' expenses. With this in mind, EASA has signed a partnership agreement, providing funding for developing countries in central and west Africa to put their airports through the programme.

Likewise, the World Bank supported an APEX review of Cairo airport and is interested in airports going through the process before it funds projects. Also, the Southern African Development Community (SADEC) has asked ACI to come and review its airports.



"We pay no one, it's done on a volunteer basis," Tounsi said. "We have 1,900 airports in the world as members and among them there are very, very highly skilled staff who are willing to help." He added that it was a great experience to be on the team. Alongside being ACI Africa secretary general, Tounsi himself is a safety auditor.

The process starts with a detailed safety questionnaire that the host airport completes three months before the visit. "Once we have the questionnaire responses, we can focus on the skills that the airport needs," he said.

ACI uses this information to assemble a team of safety experts from across its member airports

“It started as an African programme and now it’s worldwide, because even very big airports need an external review covering safety.”

ALI TOUNSI

worldwide, picking from a pool of specialists in areas like aerodrome ground operations, fire-fighting, or wildlife hazards. The size of the team depends on the size of the airport. The minimum is six people, but this can go as high as 15-20 for a large hub like Beijing. The team usually includes at least one person from the International Civil Aviation Organization (ICAO).

“The principle of this programme is that it is a peer review but, in practice, it’s like an ICAO audit. It’s the same process but we don’t come as auditors – we come on a friendly basis, like a doctor. We tell you where the gaps are and how to address them, based on the team’s experience and ACI best practices.”

Leadership theme for conference

The 27th Airports Council International (ACI) Africa/world annual general assembly, conference and exhibition takes place in Port Louis, Mauritius from October 16-18 this year under the theme of ‘bold leadership in a time of change’.

“The theme of this year’s conference recognises that whatever the set of changes, airports play a crucial role in the economic and social health of communities, countries, regions and the world at large, and they must craft a strategy for their sustainable development to continue providing those benefits,” said ACI Africa secretary general, Ali Tounsi.

“We expect to welcome both local and international exhibitors – from airports and service providers to a host of other aviation-related businesses – showcasing a range of products, services and technologies aimed at making our business ever more efficient and passenger-friendly.”

Full details are available at the ACI website <http://www.aci-waga2017.com/>

But surely ICAO’s presence makes the host airport nervous? “No, quite the opposite,” Tounsi said. “When ICAO comes on an official basis, people get nervous and stressed but when it comes on a friendly basis, people welcome us and are very happy to share information and discuss solutions. We have an agreement that ICAO can accompany us on all the APEXs.”

Going back to the idea of the doctor’s surgery, even ICAO does not get to see the full APEX report and any information that is secured during the visit must remain confidential.

The peer review itself is based on ICAO Annex 14 and 19, as well as ACI best

Continued
on Page 64

ACI uses specialists in areas like aerodrome ground operations, fire-fighting, or wildlife hazards.



CONTINUED FROM PAGE 63

practices. Annex 14 sets out standards and recommended practices (SARPs) for airport design and operations, while Annex 19 focuses on safety management.

During the five-day review, the experts assess the airport infrastructure, runways, taxiways, parking, lighting systems, obstacles, the airfield, fire-fighting equipment, wildlife hazards, human resources, safety management system (SMS) procedures and implementation. Each expert identifies the host airport's weaknesses in their own specialist area and they submit a short report on what they find, along with suggestions for improvement.

"For example, we always have two people covering all aspects of fire-fighting, including equipment, infrastructure, procedure and exercises. This is just one part," Tounsi said.



At the end of the five days, the findings are shared with the host airport's CEO through a two-hour verbal presentation. The assessors then send their individual summaries to ACI's headquarters in Montreal, where they are compiled into a detailed review. The final report is then sent to the host airport roughly a month after the audit, along with suggested solutions to any problems.

"The biggest gap is usually knowledge, so we have created courses for airports to learn the basics," Tounsi said.

This APEX safety assessor training programme launched in March 2016 and is now used to train other experts. This is one of a range of ACI courses, which cover aerodromes, air routes and ground aids (AGA) training, safety management systems implementation and ICAO Annex 14. The course is free; the host just has to provide the classroom, food and the accommodation for the trainer. The trainer's fee is covered by ACI.

African airports with an APEX review

Safety: Lomé-Tokoin International Airport (LFW), Togo; Maputo International Airport (MPM), Mozambique; Kenneth Kaunda International Airport (LUN), Zambia; Aéroport de Nouakchott (NKC), Mauritania; Sir Seewoosagur Ramgoolam International Airport (MRU), Mauritius; Aéroport Félix Houphouët-Boigny (ABJ) and Aéroport International Diori Hamani (DIM), Côte d'Ivoire; Aéroport de Ouagadougou (OUA), Burkina Faso; Aéroport de Port-Gentil (POG), Gabon; Aéroport International Cardinal Bernardin Gantin (COO), Benin; Khartoum International Airport (KRT), Sudan; Cairo International Airport (CAI), Egypt; Murtala Muhammed International Airport (LOS) and Nnamdi Azikiwe International Airport (ABV), Nigeria; Entebbe International Airport (EBB), Uganda; Aéroport International Léopold Sédar Senghor (DKR), Senegal; Aéroport International de Bamako-Sénou (BKO), Mali; Aéroport International Hassan Djamous de N'Djamena (NDJ), Chad; Kotoka International Airport (ACC), Ghana; Aéroport International de Tunis Carthage (TUN), Tunisia; Aéroport International de Brazzaville Maya-Maya (BZV) and Aéroport de Pointe Noire (PNR), Congo; Aéroport International de Yaoundé-Nsimalen (NSI) and Aéroport International de Douala (DLA), (Cameroon); Aéroport International Léon-Mba (LBV), Gabon.

Security: Sir Seewoosagur Ramgoolam International Airport (MRU), Mauritius.

Non-African Airports that have been through the APEX in security: Gusti Ngurah Rai Airport (DPS), Sultan Aji Muhammad Sulaiman Sepinggan (BPN), Juanda Airport (SUB) and Sultan Hasanuddin Airport (UPG) Indonesia.

"We train them for their own airports, but also to join us as a partner. It's a cooperation. If you are trained by ACI for free, you have to come back and help other airports. This is in the agreement," Tounsi said. "We try everything in Africa and, if it is good, we spread it out for the world. Maybe it will become a world programme."

Last year, 22 people went on the first APEX safety assessor course in Morocco and, at the time of writing, another 25 were going through the programme in Tunisia. Others have been held in Benin, Burkina Faso, Chad, Mauritania and Togo.

"There are a lot of people involved in safety, such as the Civil Aviation

Association (CAA), the airport, handling companies, airlines and air navigation service providers (ANSPs). The problem is that each of these groups works from their own perspective and they don't collaborate. Everyone has their own ideas about safety and sometimes these ideas are conflicting and never get harmonised. The course brings them all into one classroom for two weeks and gives them the same information about certification and SMS, with a lot of practical exercises. It's a great success."

In total, ACI gave around 300 free training courses and scholarships in 2016 and Tounsi said the target figure for 2017 is even higher. "We are in a good financial situation to dedicate more for training, so 10% of our income will go into it," he said.



ACI has already performed APEX safety reviews on 25 African airports and more are planned for 2017, including Bangui M'Poko International Airport, which serves the capital of the Central African Republic. In total, 67 airports worldwide have now been through the programme.

Building on the success of the programme, ACI has begun rolling out an APEX in security, following the same model. This also started in Africa, with Mauritius performing the pilot review in 2016.

"Now we are starting the APEX security programme worldwide, also working with ICAO and the US Transportation Security Administration (TSA). Maybe, in future, we will expand APEX to economics, the environment and so on, but our main focus in Africa is safety and security. In Africa, the CAA and the airport themselves exist in two separate worlds. One is the administrator, the other is the operator and sometimes there is not much cooperation. This is the reality in Africa."



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The upgraded Victoria Falls International Airport in Zimbabwe has started attracting major airlines flying the latest wide-body aircraft. Humphrey Nkonde reports.

FALLS ON THE UP AND UP..

In 2013, President Robert Mugabe's government obtained a \$150 million loan from the Export-Import Bank to upgrade Victoria Falls International Airport.

The work includes a new international terminal building with a capacity to handle 1.5 million passengers a year.

The old terminal, with capacity of 500,000 passengers, now services domestic flights.

Large aircraft, such as the Boeing 747 and Airbus 340, are able to land at the airport, as the upgraded runway is now 4,000 metres long and 60 metres wide.

Air traffic control and meteorological services are being offered from the airport's new control tower, while a new fire station is equipped with E-One fire (foam) tenders.

The airport has CCTV coverage, instrument landing and airfield ground lighting systems, automated baggage handling, as well as refuelling facilities for Avgas and Jet 1 fuel.

Banks, restaurants, duty free shops, and offices for immigration and customs have also been incorporated into the airport.

Victoria Falls International Airport was mainly constructed to serve tourists from all over the

world going to view the Victoria Falls, one of the seven natural wonders of the world. Since the upgrade, it has attracted major airlines.

Ethiopian Airlines, Africa's largest airline, started direct flights to Victoria Falls from Addis Ababa's Bole International Airport using the latest B737-800 New Generation aircraft on March 26.

Zimbabwe's Minister of Infrastructure and Transport, Joram Gumbo, and Esayas Woldemariam Hailu, Ethiopian Airlines' managing director for international services, gave speeches after the first B737-800 landed.

NAMIBIA SEEKS NEW CONTRACTOR FOR HKIA

The Namibian Government says it has restarted a "transparent and cost-sensitive" tendering process for the expansion of the Hosea Kutako International Airport (HKIA), which stalled in March after a Supreme Court ruling nullified the December 2015 decision to award the contract to a Chinese company. Oscar Nkala reports.

Hosea Kutako International Airport is located about 45km east of the Namibian capital, Windhoek, and is the country's largest facility with international connections.

The Supreme Court ruling ended a long-running legal battle in which Anhui Foreign Economic Construction Group, a state-owned concern, disputed a government decision to cancel the tender.

That decision had been taken following a review that revealed the Ministry of Works and Transport and the Namibian Airports Company (NAC) had flouted tender regulations.

The cancellation was also influenced by consultants, who advised the government that, at \$466 million (NS\$7 billion), Anhui's price tag for the airport upgrade and rehabilitation tender was far too expensive for the scope of work envisaged.

At the time, media reports also alleged gross irregularities and possible bribery and corruption were rife during the bidding process.

However, the Chinese company took legal action against the government, saying it should restore the



contract or pay restitution for breach of contract.

Following the Supreme Court ruling in April, Namibian President, Hage Geingob, said the government had re-started the tendering process.

"Despite the urgent need to upgrade the airport, we did not hesitate to seek the cancellation of the tender due to irregularities. The Supreme Court decision to set the tender award aside has enabled us to restart a transparent and cost-sensitive procurement process," he said.

The airport upgrade plan is aimed at de-congesting the main passenger terminal and preventing traveller delays. The new structure will feature separate departures and arrivals halls and a world standard VIP hall to accommodate dignitaries.

A second and longer runway will also be built to handle traffic in the event that the existing one is out of action.

Apart from the HKIA, NAC operates seven other airports, which are also earmarked for infrastructure upgrades as Namibia struggles to achieve its goal of

being the alternative regional gateway to South Africa.

However, the current upgrade plans only cover HKIA, Eros, Ondangwa and Walvis Bay airports. NAC CEO, Tamer El-Kallawi, said there is no budget for upgrades to the smaller airports in the towns of Rundu, Katima-Mulilo, Lüderitz and Keetmanshoop, which are all in bad shape.

The airport in Rundu features a shed with 25 seats, which forces the majority of passengers to stand while waiting to catch flights or to be collected after landing.

The airport has no passenger terminal and minimal ablution facilities, which are shared by its staff and travellers.

Although it has a 3.5km runway capable of accommodating larger aircraft, it has no lights and the apron and taxiways are paved with gravel. The airport has no refuelling facilities and receives outsourced supplies, which are delivered only on request.



Dr Gumbo said the inaugural flight by Ethiopian Airlines showed the confidence it had in Zimbabwe's aviation industry, adding that Africa's biggest airline had continued servicing the Harare route at a time when other airlines withdrew their flights to Zimbabwe.

He called on African airlines to codeshare their ticketing systems so that Africa improved its stake in the global aviation industry.

Meanwhile, Hailu, who was one of the passengers on the first flight, described the natural phenomenon of Victoria Falls as "the magnet of African tourism".

Ethiopian Airlines will fly non-stop from Addis Abba at 08.35am to arrive in Victoria Falls Town at 12.15pm on Tuesdays, Thursdays, Saturdays and Sundays. Return journeys on the same days would include stopovers in Gaborone, Botswana's capital city.

Kenya Airways and South Africa's Airlink are also planning to start direct flights to Victoria Falls International Airport, according to information released by the Civil Aviation Authority of Zimbabwe (CAAZ).

CAAZ has a task of connecting the airport to several tourist destinations within Africa.

"We are working on connecting Victoria Falls to regional tourist destinations such as Walvis Bay in Namibia and Mombasa in Kenya," said CAAZ in a statement.

Other international airlines servicing Victoria Falls International are Fastjet Zimbabwe, Air Zimbabwe, South Africa Airways, South Africa's Airlink, Air Namibia, and British Airways, operated by South Africa's Comair.

Scheduled flights are being covered by Rainbow Airlines, while non-scheduled flights to the airport are also being completed by charter operators.

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Above and beyond

Zambia has, for the past few years, been engaged in major infrastructure development projects to upgrade the country's four international airports. **Keith Mwanalushi** checks in on progress at the main gateway – Kenneth Kaunda International Airport.

EAGLE SHAPES THE FUTURE FOR KKIA

There are four international airports in Zambia; five secondary airfields and five airstrips serving international and domestic flights in the southern African country.

Kenneth Kaunda International Airport (KKIA) in Lusaka is the main airport connecting the country with the rest of the world. It is complemented by three smaller airports at Ndola, Livingstone and Mfuwe, as well as secondary airfields at Chipata, Kitwe, Kasama, Mongu, Solwezi and Mansa.

Zambia has no flag-carrier of its own (not since the liquidation of Zambia Airways in 1995) but is served by a number of airlines that connect to international hubs, notably Johannesburg, Nairobi, Addis Ababa and Dubai.

The Zambian Government has embarked on a programme to improve the infrastructure at all the international airports and this is being completed in collaboration with private sector participation.

The Zambia Development Agency reports that infrastructure still remains a major challenge to growth, economic diversification and human development in Zambia. As such, infrastructure development is one of the government's priority areas, and is upheld in both the revised sixth national development plan, and the national vision 2030.

The on-going work at (KKIA), costing nearly \$360 million, is being carried out by the China Jiangxi Corporation for International Economic and Technical Cooperation.

The new airport is being built adjacent to the current colonial-style terminal that has seen little development since post-independence from Britain in the 1960s.

Robinson Misitala, Zambia Airports Corporation Limited (ZACL) managing director, said the developmental upgrade projects at KKIA were currently around 45% complete. The



time line for completion is October 2019. "There are several facilities being constructed. However, the one garnering the most attention is the new terminal," he added.

The scope of work at KKIA includes the construction of a four million capacity terminal building with six aero bridges. "The terminal building will be in the shape of an eagle, which is Zambia's national symbol," Misitala revealed.

He said there is also a 30-room capacity in-transit hotel, as well as a 70-room non-transit passenger hotel, under construction.

The contractors are also expected to construct new taxiways, aprons, landside and airside driveways, plus a new fire and rescue services facility.

Furthermore, an air traffic control tower; a new cargo terminal, a shopping mall and office complex will be erected.

The new fire and rescue service stations will be complete in 2017, while the new water reservoir and pump house are also advancing well, ZACL reported.

The airport operator also said part of

The new airport in Lusaka is due for completion in 2019. The terminal building will be in the shape of an eagle – Zambia's national symbol.

the scope of work is the rehabilitation and refurbishment of the existing airport, which will be turned into a domestic terminal once the newly constructed international terminal is complete. "The current airport will remain in use. However, it will be rehabilitated and renamed as Terminal 1," Misitala confirmed.

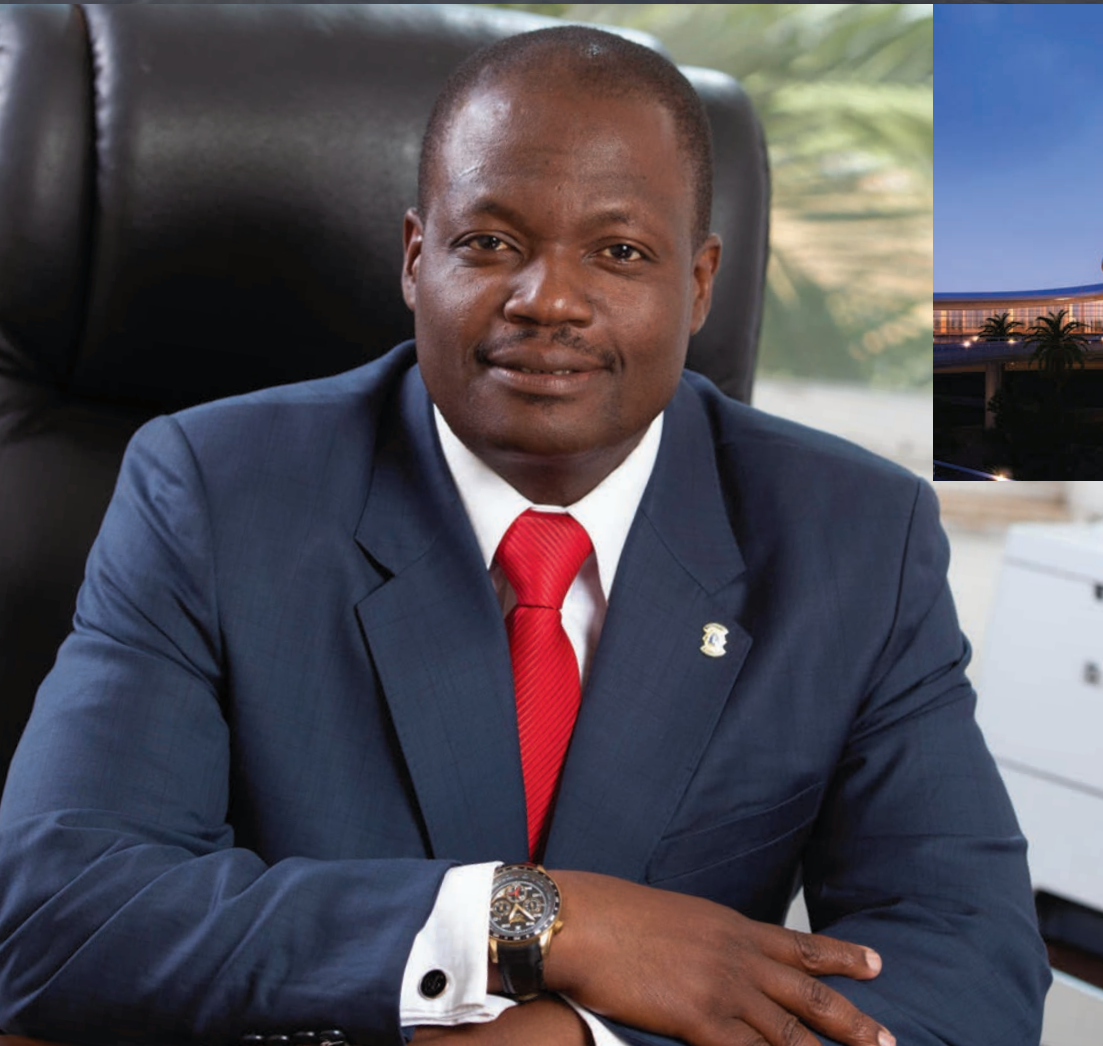
Technology is changing how airports are managed and operated. The global trend is towards 'smart' airports using new technologies for passenger and baggage processing. African airports cannot afford to lag behind.

Business intelligence provider, Visiongain, assesses the global smart airport technologies market to be worth 2.99 billion in 2016.

Misitala is fully aware of the pressure to invest in such technologies and he said smart airport systems would enhance efficiency and effectiveness in the airport's operations, while providing increased safety and security to the travelling passengers and airline operators.

MODERNISATION

ZACL has invested \$360 million in the new airport project.



Lusaka and Livingstone will cost no less than \$325 and a regional service to Durban will set you back at least \$500, based on adult fares – way out of reach of the general public.

It's been widely reported that Mahogany Air has, once more, outlined plans to resume commercial passenger operations from Lusaka, nearly three years after they were first suspended. Even then, airline operations that lack a low cost base will do little to change the situation.

"Currently, the ticket cost is prohibitive and, therefore, it is more convenient for someone to drive to their destination rather than fly, which is what many are opting to do despite the convenience of flying. We hope this trend will cease with the arrival of a national carrier," Misitala said.

ZACL is hoping that the airport developments in the country will greatly improve the situation for both passengers and airlines, as well as enrich the customer experience while cementing Zambia's place as the next regional hub.

In fact, the issue of a regional hub has been discussed in depth locally citing Zambia's geographical location as attractive for connecting services throughout southern and central Africa.

"Our projections for future air traffic growth remains positive with international airlines continuing to show interest in establishing a Zambian route," Misitala continued.

Qatar Airways, for example, will begin flights between Doha and Lusaka in 2018. "This will help realise the strategic objective of turning KKIA into a regional hub, as Lusaka presents characteristics of a natural hub due to its location on the continent," said Misitala. "We are surrounded by eight neighbouring countries, which gives us a unique opportunity."

To be a hub, Misitala strongly feels that there is need for a national carrier to enhance the airport's position and potential.

He said several technologically advanced software applications have already been implemented at Zambian airports, including the baggage handling system (BHS), the common user terminal equipment (CUTE), the common user self service (CUSS), the flight information display (FIDS) and the public address system. "These platforms have given us greater control and improved efficiencies in our operations as we aim to continuously improve business results," he said.

"With the implementation of the smart airport system, we have already begun seeing an improvement in the passenger experience as operational efficiency continues to increase. Business intelligence has enabled ZACL to make better decisions with the right information at the right time."

Figures released by ZACL show the general passenger movement for the main international airports in the country was 1.6 million. The domestic passenger movements were 274,344, while international passenger movements were 1.3 million.

Robinson Misitala:
"Our projections for future air traffic growth remain positive with international airlines continuing to show interest in establishing a Zambian route."

A positive growth of 4.4% was recorded in international traffic, while domestic passenger movements were down 7.2%.

"The growth in international passenger movements can be attributed to increased activities in both Livingstone (Victoria Falls) and Lusaka. Both cities are increasingly becoming the location of choice for international and local conferences. Livingstone also happens to be our tourist capital," Misitala emphasised.

He explained that the challenge facing the domestic market was mostly attributed to cost and lack of competition.

The cost of air travel in Zambia is considered high. Currently, Proflight Zambia is the only locally-based airline offering domestic and regional services and many see the fares as expensive. In Africa as a whole, it's not unusual for taxes and airport charges to be out of kilter with the living standards.

A quick glance at the Proflight website reveals the scale of this fare dilemma for local passengers. A domestic fare between

‘Second-hand’ supplier looking for new ground

A Belgian company that has been successfully selling and leasing second-hand ground support equipment (GSE) to airlines and ground-handlers around the globe is targeting Africa as a ‘region for potentially massive growth’, according to Bruno Motté, who heads up the company’s second-hand GSE department.

TCR is based in Brussels and, while its focus is still on selling and renting refurbished second-hand GSE equipment in countries like Morocco and South Africa, it is now looking to expand this business throughout the entire continent.

“We believe that our business model provides a cost-effective, reliable and efficient solution for ground-handlers and airports that may be strapped for capital expenditure,” said Motté.

Since developing the concept of refurbished GSE leasing back in 1999, before rental was even an option for ground-handlers, TCR is still the only company offering its unique and comprehensive range of GSE services.

More than 350 units are sold worldwide each year and this total is growing.

Today, Africa represents around 10% of the



TCR ground equipment is seen at airports worldwide.

company’s sales but Motté is confident that countries like Ivory Coast, Liberia, Morocco, Kenya, Congo, Chad, Uganda, Egypt, Tanzania, Libya, Nigeria, Equatorial Guinea, South Sudan, DR Congo, Senegal, Tunisia, Guinea and Togo are potential business targets.

He believes that a recent customer survey, published in late 2016, showing that around 93% of TCR’s customers would recommend the company as a second-hand GSE supplier, is positive news for airports and ground-handler companies around Africa.

To emphasise its ambitions, TCR is attending the third African Ground Handling International Stakeholders’ Conference to be held at the Emperor’s Palace, Johannesburg in September 2017. The event will feature a tried and tested recipe of interest to handlers, airlines, airports and suppliers, and TCR is confident that it will be a positive step towards expanding its sales and rental business in the continent.

Motté concluded: “We already do business with companies in east, central and west Africa and we are certain that our unique proposition will find favour as the burgeoning civil aviation business continues to expand throughout the continent.”



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Ninety years ago, the idea for Kenya's famous Wilson Airport was first mooted. Githae Mwaniki has been looking over its history and current status.

HOW WILSON AIRPORT LANDED A PLACE IN HISTORY

The idea of developing Wilson Airport was agreed in late 1927, when those wanting to set up the aerodrome agreed on the site in Langata.

This was after the group of operators led the drive to move from the previous operational airfield in Dagoretti Corner.

The first flight from the new aerodrome was completed in July 1929.

The pioneer operators were Wilson Airways and Imperial Airways. The airfield, then known as Nairobi West Aerodrome, was fully approved by the authorities in 1933.

The airfield served as the main airport, not only for Kenya but also the east African region, at a time when the only other active airfield was in Kisumu.

Imperial Airways and Wilson Airways pioneered commercial routes, operating Nairobi-Cape Town in addition to Nairobi-Kampala (Uganda) and Nairobi Dar es Salaam (Tanzania – then Tanganyika).

Wilson Airways began operations using



Florence Wilson being congratulated by the Minister for Commerce and Communication, Masinde Murilo, at the unveiling of the plaque to rename Nairobi West Aerodrome to Wilson Airport in 1962.

a DH60G Gipsy Moth registered as VP-KAC. The founder of the airline, Florence Ker Wilson, had seen the need to develop air transport within east Africa and had the capital to start up and sustain the airline's operations.

Initially, most of the operations were charters. Later, scheduled services were introduced and more aircraft were added to the fleet, which peaked in 1938 with 17 aircraft, including DH89A Dragon Rapides and Percival Vega Gulls.

Wilson Airways served a range of clientele, including members of the British Royal family, prominent European personalities and safari groups.

The airline also pioneered the initial air ambulance service in the region, in addition to setting up the first commercial flight training school. As such, the enterprising spirit of Mrs Wilson, then often referred to as 'Florrie', meant the airport had become the hub for regional and general aviation in east Africa.

Continued
on Page 72

CONTINUED FROM PAGE 71

Operations grew exponentially until 1939, when World War II forced Wilson Airways to cease operations. The airfield and the entire Wilson Airways fleet and pilots were taken over by the then British Colonial Government as the facility was converted to become a Royal Air Force base.

During the war, construction of Kisumu and Mombasa Airports was completed and they were initially dedicated to military operations.

It was only after the war ended in 1945 that civilian operation returned to Nairobi West Aerodrome, with the resumption of commercial operations.

Wilson Airways' operations were later taken up when the new East African Airways was formed by Kenya, Uganda and Tanzania in 1943.

In 1962, the then colonial government renamed the aerodrome Wilson Airport in honour of Florence Wilson in a ceremony that was presided over by the then Minister of Commerce and Communication, Masinde Murilo.



Mrs Wilson was present at the unveiling. She passed away six years later at her home in Karen. In the mid 1950s, construction of the new Nairobi Aerodrome had taken place on a new site in Embakasi, to the north of Nairobi.

The aerodrome was opened by the then Governor of Kenya, Sir Evelyn Barring, in 1958 as the new international airport for the east African region. This left Wilson Airport to continue to be dominated by the host of domestic airlines and general aviation operators.

In the late 1960s, during the administration of the newly-independent Kenyan Government, the airport was managed by the then Department of Aerodromes, based at the Ministry of Transport and Communications.

The airport's operations grew exponentially until the early 1990s, after which management was taken over by a new parastatal set up by the government – Kenya Airports Authority (KAA).

The parastatal was formed by an act of parliament with the mandate to develop and manage all airports and aerodromes in Kenya.

The Aero Club of East Africa has had a major role in Wilson Airport, as its members formerly contributed to a majority of the aircraft movements at the facility.

The club also organised spectacular air shows in the late 1980s to 1990s that showcased the value of the airport to the region. In addition, it holds priceless memorabilia of Kenya's aviation history.



The airport still retains its charm, even though most of the light private aircraft that dominated the facility moved to Orly Air Park, a private aerodrome 22km from Wilson Airport.

Wilson Airport, referred to by the International Air Transport Association (IATA) code as WIL and International Civil Aviation Organization (ICAO) code as HKNW, serves both domestic and international traffic, with operations dominated by light aircraft, which serve the tourism, health care and agriculture industries.

The airport has an elevation of 5,536ft, boasts two asphalt runways measuring 1,462 and 1,540 metres respectively, and has fuel delivered by bowser supply.

It has an average traffic of around 183,000 take-offs and landings annually, and accommodated 480,000 passengers in 2016.



Currently a wide range of domestic carriers use the airport to serve a range of destinations within Kenya and the surrounding region. These include East African Safari Air Express (Fly Sax), Air Kenya Express, Safarilink, Skyward Express, and Freedom Airlines, all of whom serve destinations including Maasai Mara, Lamu, Ukunda, Malindi, Lodwar, Lokichoggio, Wajir, Mandera and Kilimanjaro.

Other operators who use the facility include a range of flight training schools, relief operators and helicopter operators.

The future of Wilson Airport has been a subject of much debate. Even though the airport is a strategic facility for the country and has been a key contributor to KAA revenue, there has not been significant investment to upgrade the

Illegal encroachment of real estate is a challenge for the airport.

infrastructure and airport facilities. Aircraft operators face acute congestion, especially in terms of parking space and passenger terminal, hangar and office space.

The other challenge faced by the airport is the massive illegal encroachment of airport land by real estate, especially on the flight paths, that led to a security and flight safety hazard. The encroachment has meant that land for airport expansion has been utilised and a proactive land management plan needs to be implemented if the current and future status of the airport is to be guaranteed.

The KAA management is working to implement a revised master plan for the airport. It aims to rehabilitate all runway pavements and aprons, including construction of a new apron to hold decommissioned and long-term aircraft, so as to free up more parking slots near the ramp terminal area.

Also, the Kenya Civil Aviation Authority (KCAA) is currently constructing a new \$1.7 million control tower, which is scheduled to be completed by early 2018. The current 50-year-old tower does not have an effective 360-degree view.

The revised master plan for the airport indicates that that a new passenger terminal will be constructed on the northern side, as opposed to the initially proposed southern side, but the actual implementation plan has yet to be outlined.

Due to the critical nature of the airport to Kenya's domestic and regional aviation, the KAA and all relevant government agencies need to prioritise implementation of the revised master plan, especially the new proposed passenger terminal, apron and concessions management. It must also take decisive action on all land encroachment so as to safeguard the airport's future.

The future of Wilson Airport has been a subject of much debate.



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Zambia hosted the 57th Airports Council International (ACI) Africa regional board, committee meetings and an exhibition at the Avani Victoria Falls Resort in Livingstone from March 20-26. **Humphrey Nkonde** reports.

HOPES AND FEARS FOR

Developing airport business – the way forward for Africa – was the theme of a week-long series of events. Topics included African airport business development challenges, managing airport costs, financing airports, airport marketing, human resources, strategic business planning, and airport capacity management, as well as passenger experience and revenue for airports.

It is estimated that Africa will have the largest aviation market in the world by 2035 but the continent currently lacks airport infrastructure. Where there is adequate infrastructure, income is currently mostly generated from aeronautical services.

Some African countries are acquiring loans to build airports but this is also raising concerns that they might not be considering how to avoid financial risks.

There are also those who believe that some countries may not have the human resources to manage these new huge airport investments.



Against this backdrop, Zambia, the host of the ACI events, has invested \$ 1.7 billion to upgrade three international airports and to build a new one.

Its new airport will feature a 70-room hotel and a shopping mall, from which the Zambia Airports Corporation Limited (ZACL) would generate revenue.

Neighbouring Zimbabwe also obtained a \$150 million loan from China's Export and Import Bank (Exim) to upgrade the Victoria Falls International Airport. It has incorporated banking facilities, restaurants, duty-free shops, plus offices for immigration and customs.

However, a European expert has warned that revenue from the travel retail businesses would fall if proposals to



Top: ACI Africa Secretary General Ali Tounsi talking to some delegates during the conference in Livingstone, Zambia.

Above: Delegates listening attentively.

remove duty-free status from some products went through.

For instance, it has been suggested that tobacco and alcohol should not be sold duty-free in retail facilities at airports. This is because those products are contributing non-communicable diseases, which would be the leading killers by the year 2030, according to the World Health Organisation.

Keith Spinks, the secretary general of the European Travel Retail Confederation,

told the delegates that if duty-free status were removed from cigarettes and alcohol, airport retail revenue would fall.

In his presentation, he stated that wines and spirits accounted for 21% of travel retail business and that another 26% was obtained from tobacco. The only other duty-free products that sold more than 20% were fragrances and cosmetics, which accounted for 28%.

“Duty-free tobacco faces different policy changes, such as duty-free ban, tobacco display ban, and graphic health warnings,” Spinks said.



Already, tobacco duty-free sales have been banned in Burundi, Uganda, Gabon and The Gambia, while plain packaging has been stopped in the Democratic Republic of Congo, Mauritius and South Africa.

Tobacco display and advertising bans have been imposed in Nigeria, Ethiopia, Kenya and Senegal.

Kenya and the Democratic Republic of Congo have also implemented graphic health warnings and any form of tobacco advertising cannot be done in Botswana and Ghana.

South Africa was the only country that has implemented health warning labelling on tobacco, according to Spinks.

He said that the global airport retail market was projected to reach \$59 billion by 2019, a rise of 72.9% on the 2013 figures.

“The aviation industry must work in partnership to defend against threats that may occur,” he said, adding that if the duty-free status was removed on tobacco and alcohol it could cost the retail travel industry some \$59 billion.

ACI Africa secretary general, Ali Tounsi, said that critical mass was supposed to be achieved before airports started recovering operating and investments in infrastructure.

AFRICA'S WAY FORWARD

"The capital-intensive nature [of airports] is the reason that the majority of smaller airports are loss-making; they do not generate enough revenue to cover their capital and operating costs," Tounsi said.

Terrorism was another factor that posed a threat to the growth of the aviation industry in Africa and other parts of the world.

Gael Poget, general manager of Geneva Airport, said: "When security measures are effective and efficient, travelling confidence and satisfaction increases and with that comes additional revenue for airlines and airports."

As a result of concerns regarding security, there is a shift to smart security systems.

"Smart security envisions a future where passengers proceed through checkpoints with minimal inconvenience, where security resources are allocated based on risk, and where airport facilities can be optimised, thus contributing towards an improved journey from kerb to airside," Poget said.

□□□□

ZACL managing director, Robinson Misitala, said one of the weaknesses of the airport security equipment was that it could not detect ivory. Elephants and rhinos have been killed in several parts of Africa for their tusks and horns.

Most European tourists travelling to Africa are interested in viewing animals in game reserves. Reduced numbers of elephants and rhinos would have a negative impact on the tourism sector, which would, in turn, retard the aviation industry.

The audience was told that, while some technologies have been found to improve security, it has been observed that there are variations in term of standards across Africa.

There were also suggestions that African countries should not just invest in

SOMMAIRE

ESPÉRANCES ET CRAINTES SUR LA ROUTE DE L'AFRIQUE

La Zambie a accueilli la 57e assemblée générale de l'ACI en Afrique en mars dernier.

Un reportage de Humphrey Nkonde.

Le développement des activités aéroportuaires - la voie du futur pour l'Afrique - a été le thème d'une série d'événements durant cette semaine.

Selon les prévisions, l'Afrique aura le plus grand marché de l'aviation dans le monde d'ici 2035. Le continent manque cependant d'infrastructures aéroportuaires pour soutenir sa croissance.

Certains pays africains contractent des prêts pour construire des aéroports. Ainsi, la Zambie a investi 1,7 milliard de dollars pour moderniser trois aéroports internationaux et en construire un nouveau. Le Zimbabwe va moderniser l'aéroport international de Victoria Falls. Cela soulève toutefois des inquiétudes car souvent les risques financiers ne sont pas bien calculés. Ajouter à cela, le manque de ressources humaines pour gérer ces nouveaux investissements.

□□□□

Le secrétaire général d'ACI Afrique, Ali Tounsi, a déclaré que la masse critique devrait être atteinte avant que les aéroports ne commencent à récupérer les activités et les investissements dans les infrastructures.

La nécessité de développer les ressources humaines adéquates pour gérer les infrastructures aéroportuaires est revenue en leitmotiv.

Le Nigéria a ainsi annoncé la création d'une université pour former des professionnels locaux et du continent dans divers secteurs de l'aviation.

Le terrorisme qui représente une menace pour la croissance de cette industrie en Afrique et dans le reste du monde a également été au centre des discussions.

Comme l'a souligné Gaël Poget, directeur général de l'aéroport de Genève, un lien existe entre les mesures de sécurité et la confiance/la satisfaction des voyageurs, et les revenus des compagnies aériennes et des aéroports.

Les nouveaux systèmes de « sécurité intelligente » devraient augmenter l'efficacité du contrôle des passagers en fonction des risques et permettre d'optimiser les installations aéroportuaires.

Il existe cependant des différences en termes de normes à travers l'Afrique.

infrastructure, but also in human resources.

Gilford Malenji, ZACL director of human resources, said failure or success of huge airport infrastructure investments across Africa depended on people.

"The success of these investments will largely depend on whether or not the concerned organisations have the right people in place with right attitude and passion for work," Malenji said.

To provide the right people in the aviation industry, Nigeria is contemplating establishing a university with the focus on sector orientation.

Federal Airports of Nigeria managing director and chief executive officer, Salem Dunoma, said Nigeria has suggested establishing a university specifically for the aviation sector.

□□□□

Dunoma, who is also the ACI Africa region president, said there was a shortage of people who had been specifically trained to manage airports.

He said Nigeria's Minister of Aviation, Senator Hadi Sikiri, supported the proposal, adding that the university would train professionals to work in Nigeria and other African countries.

Most of the aviation professions in sub-Saharan Africa are being trained at institutes, some of which are not adequately equipped.

Zambian Ministry of Transport permanent secretary, Misheck Lungu, called on African countries to work together to improve the aviation industry.

He said that it was painful to see passengers travelling between African cities going through Asia and Europe.

"By positioning the aviation sector as the preferred mode of transport, we will not only spur the growth of our economies but equally increase incomes among our people and contribute to poverty reduction," he said.

IT'S THAT SIMPLE



TPAerospace

Airbus souhaite doubler ses ventes annuelles en Afrique dans les dix à vingt prochaines années. Hadi Akoum, vice-président chargé des ventes en Afrique et l'océan Indien, aborde la stratégie et les perspectives de l'avionneur européen sur le continent avec Vincent Chappard.

Un ciel ouvert soutenu par Airbus

«Free skies opens the door for Airbus»
– Page 78

Depuis 2010, le groupe a fait « une bonne percée sur le marché africain » avec 26 nouveaux opérateurs. A ce jour, environ 32 compagnies aériennes du continent opèrent 228 de ses avions. Les clients de la région représentent plus de 250 commandes.

Les représentants du groupe sont sur le terrain pour faire voler davantage d'avions Airbus dans le ciel africain dont la libéralisation donnerait un immense coup de pouce à l'industrie. Objectif : passer de 25 à 50 avions annuellement. Une perspective de développement qui correspond aux attentes du marché et des opérateurs.

« Le marché du transport aérien en Afrique a un énorme potentiel. Dans plusieurs pays, le développement de la classe moyenne va faire progresser les économies locales », affirme Hadi Akoum. « Le transport intra-africain encore inexploité offre des perspectives de développement intéressantes. Airbus compte accompagner tous les opérateurs africains qui souhaitent développer ou moderniser leur flotte pour augmenter leur



“La taille de l’A330 est très bien adaptée au marché africain.”
HADI AKOUM

SUITE DE LA PAGE 77

efficacité et leur capacité en matière de passagers et de cargo ».

Car même si plusieurs pays africains investissent dans les infrastructures aéroportuaires, les compagnies aériennes ont encore du mal à répondre aux besoins de ce marché grandissant. « Il y a eu beaucoup d'investissements dans les infrastructures mais pas assez au niveau des compagnies. Il faut des investissements du secteur privé. »

Aucun segment n'est privilégié par le groupe car tout dépend des besoins des opérateurs et des pays qui ont chacun leurs spécificités, leurs atouts comme leurs faiblesses.

« La taille de l'A330 est très bien adaptée au marché africain. L'A320 est un avion très performant et très fiable. C'est intéressant pour les vols intra-africains et entre l'Afrique et le Moyen-Orient. La nouvelle technologie offre une sécurité accrue, plus d'efficacité et un meilleur confort en vol », explique-t-il.

En juin 2016, Ethiopian Airlines est le premier opérateur africain à opérer un A350-900, un modèle qui connaît « beaucoup de succès ». Outre, les coûts de maintenance peu élevés, ce modèle permet une économie de 25% de kérosène et d'émissions.



« Ce sont des éléments qui rassurent le marché et les opérateurs sont de plus en plus conscients des avantages opérationnels et économiques liés à l'acquisition des avions neufs et modernes. » Il y a aussi la possibilité de louer des avions.

Selon Tewolde Gebremariam, le directeur général du groupe Ethiopian, « ces avions écologiques nous permettront d'étendre notre vaste réseau à de nouvelles destinations ».

Cela montre clairement le gain de confiance et la nouvelle dynamique qui s'installe parmi les opérateurs africains trop souvent lassés de voir les opérateurs étrangers profiter du marché.

Il est intéressant de souligner qu'en général les pays africains ne sont pas « hermétique à la nouvelle technologie ». Pour preuve, le développement de la téléphonie qui a entraîné des énormes progrès dans plusieurs pays et plus récemment le déploiement des drones pour désenclaver des zones éloignées.

« L'arrivée d'un nouvel avion est souvent synonyme d'ouverture vers le monde. », estime Hadi Akoum.

Deux mois plus tôt, la compagnie Air Côte d'Ivoire, signalait une commande de deux A320neo qui selon Airbus « vont jouer un rôle majeur dans le développement de la compagnie avec l'ajout de nouvelles routes ».

La compagnie RwandAir a pris livraison de son premier A330 sur deux commandés en septembre dernier alors que la South African Airways a réceptionné le premier des cinq A330-300 commandés en décembre.

« Aviation Africa 2017 est la preuve que la réussite ne dépend pas de la taille d'un pays. C'est

SUMMARY

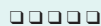
FREE SKIES OPENS
THE DOOR FOR AIRBUS

Airbus intends to double its annual commercial airliner sales in Africa over the next 10 to 20 years, according to the Toulouse company's VP sales, Africa and the Indian Ocean, Hadi Akoum.

Since 2010, Airbus has made "a good breakthrough in the African market" with 26 new operators and around 32 airlines on the continent operating 228 of its aircraft. Customers in the region also currently represent more than 250 orders.

Akoum believes that the liberalisation of Africa's skies will give a huge boost to sales and the target is to double annual sales to around 50 a year.

He continued: "The commercial aviation market in Africa has enormous potential. In several countries the development of the middle class will advance local economies and the still largely untapped inter-African market has huge potential. So Airbus intends to work with all the African operators wishing to develop or modernise their fleets to increase capacity and efficiency for both passengers and freight.



"Airbus believes that the A330 is ideal for the African market. It's a very flexible and reliable aircraft and is particularly suitable for inter-African flights and also on routes between Africa and the Middle East. Its modern technology offers greater safety, higher efficiency and better comfort for passengers."

He continued: "These are the elements that reassure the market and operators are increasingly aware of the operational and economic benefits of acquiring new and modern aircraft.

"Aviation Africa 2017 is proof that success does not depend on the size of a country. It is a way of discovering the potential of countries. The Gulf companies started out like that."

According to Airbus' forecasts, passenger traffic to and from Africa will increase by 5.6% annually over the next 20 years and this will require almost 1,000 new aircraft by 2035 to meet growing demands.

Airbus also claims a greater than 50% share of orders and future deliveries in all market sectors and a leading position in the African market with a 65% share of aircraft with more than 100 seats.

une façon de découvrir le potentiel des pays. Les compagnies du Golfe ont commencé comme cela », souligne M. Akoum.

La libéralisation de l'espace aérien qui avance « lentement », l'ouverture des frontières, l'assouplissement des cadres réglementaires, la réduction des charges et la stabilité politique permettront mieux au continent d'exploiter tout son potentiel.

Par ailleurs, Airbus « est confiant de garder sa supériorité en matière de technologie et d'innovation ». Chaque année le groupe investit deux milliards de dollars dans la recherche et le développement. L'utilisation de nouveaux matériaux performants et écologiques réduit les coûts d'opération et diminue par extension la facture de carburant. L'avionneur jouera cette carte pleinement surtout dans un contexte économique difficile et avec la hausse des prix du pétrole. Et, pour réduire les émissions de CO2.

Même si Airbus maintient ses ventes en Afrique avec un chiffre d'affaires annuel de plus d'un milliard d'euros, ce continent reste modeste dans son carnet de commande.



Hadi Akoum explique que la stratégie d'Airbus a aussi un volet pédagogique et d'information auprès des gouvernements et des autorités concernées par l'industrie sur tout le continent. La formation technique et le développement des ressources humaines en sont également des composantes essentielles.

« Les gouvernements reconnaissent de plus en plus le rôle vital que joue la connectivité aérienne en matière d'accès aux marchés (face au manque d'infrastructures terrestres), de croissance économique et commerciale, de création d'emploi et de prospérité nationale », souligne Hadi Akoum.

Il ajoute que dans l'océan Indien, « la compagnie Air Mauritius est dans cette démarche » et que le renouvellement de sa flotte lui permettra de mieux se positionner.

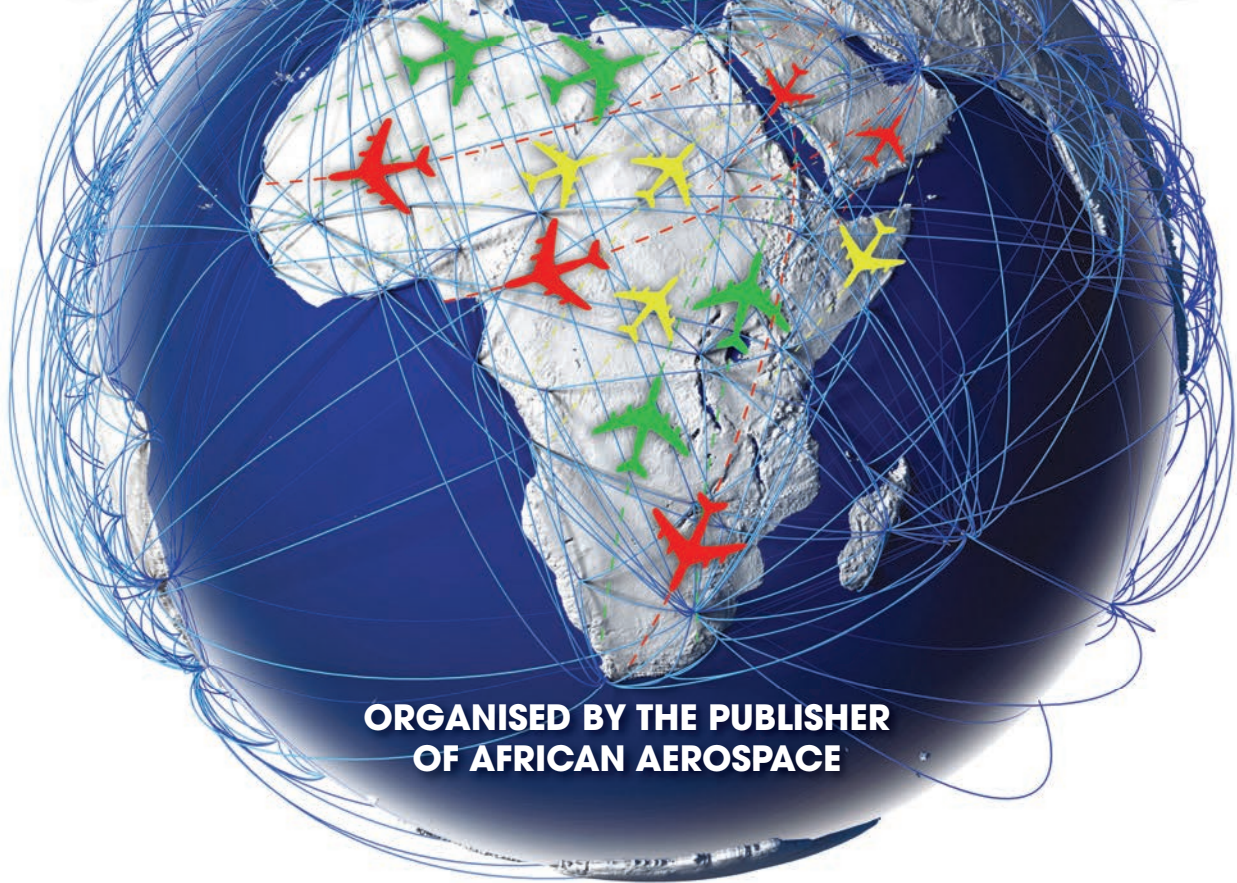
Selon les prévisions d'Airbus, le trafic des passagers en partance et à destination de l'Afrique augmentera de 5,6% annuellement lors des 20 années à venir. Le continent aura besoin de 991 nouveaux avions d'ici 2035 pour répondre aux demandes croissantes. Ce qui représente environ 3% des livraisons prévues mondialement sur le segment des 125-800 places.

Airbus revendique plus de 50% de part des commandes et des livraisons futures sur tous les segments et une position de leader sur le marché africain avec une part de marché de 65% sur les avions de plus de 100 sièges, devant l'américain Boeing.

Le groupe compte sur l'ATR face à Bombardier sur le segment des avions régionaux pour le trafic domestique et régional.

L'optimisme imprègne toute la stratégie d'Airbus qui répondra présent en Afrique pour profiter et accompagner le développement de l'aérien sur tout le continent.

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Pratt & Whitney Canada is gearing up for a major effort, both to enhance fleet support services for its existing and future customers throughout Africa, and to attract new users to its range of turboprop, turboshaft and turbofan engines. Geoff Thomas reports.

CITY LINKS THE KEY TO GROWTH IN AFRICA

Like other original equipment manufacturers (OEMs) involved in commercial airframes and engines, P&WC is seeing considerable business growth in Africa.

This increased activity covers all areas of commercial aviation, including passenger and freight transportation, humanitarian aid support flights, business aviation and agricultural services.

Ismael Rhissa Zakary, who is originally from Niger, heads up the company's business development and strategy. He explained why he is currently concentrating on Africa as a major area for growth.

In many areas of the continent, he said, road and rail transportation is relatively undeveloped and this leaves a gap to be filled by aviation. The industry is meeting that challenge in many and varied ways by reacting to Africa's vast geography and diverse terrain, both of which mean that affordable, safe air transportation is vital in support of – and to help enable – future economic growth



He explained: "Our focus is on leading a dedicated Africa-based team in deploying our strategy. In order to unlock Africa's aerospace potential, local stakeholders will need a lot of support, especially from those who build the aircraft and their engines.

"OEMs like P&WC have a major role to play by adapting their approach to the unique details of the African market. Some aspects and requirements are specific to Africa while others are not and the challenge is in identifying what our operators really need in order to play their roles in the economic transition of the entire continent. And this all starts with a genuine need for us to have a real presence in the field."

P&WC engines – which power aircraft such as the ATR family and the Bombardier Dash and Q families along with the Beech 1900 – have essentially built the regional airline industry and are still very popular in Africa, he says.

And, with more and more second-hand regional airframes migrating from North America and Europe to Africa, P&WC is even more convinced that turboprops are best suited



The latest PT6A-140 engine in action in Kenya.

to support the rapid growth of commercial aviation on the continent.

"In the general aviation world," he continued, "more and more aircraft platforms with P&WC engines are being utilised in the frequently harsh African conditions, and operators are looking to OEMs like us to support them better with more presence and new adapted services. As an example, the first Cessna Caravan EX (with latest PT6A-140 engine) to reach TBO – the time when it would need an overhaul – was from an operator based in Kenya."

P&WC has a significant and growing presence in Africa and it claims to be a clear leader in turboprop-powered airframes in all key market segments, including general aviation (GA) and regional operations. It has more than 2,000 engines currently flying, although this number could be higher in real terms if the growing number of airframe 'migrations' is included.



But how does it intend to fulfil its ambitions on the continent?

Well, Rhissa Zakary believes that interconnection between major cities in Africa will be critical, with regional aviation playing a vital role as a key enabler.

"The vast majority of regional turboprops in Africa are powered by P&WC engines and so we want to improve our 'proximity' to operators throughout the continent by adding an enhanced

technical presence," he said. "We are starting this process by creating four new mobile repair teams based at Lanseria in South Africa, Nairobi in Kenya, Doha in Qatar and Toulouse in France, and these will be able to call on additional support from existing fixed-based operations (FBOs) and key fleet operators.

"We will also enhance our 'digital offerings for Africa'. To this end, we are rolling out our flight acquisition storage and transmission (FAST) system to Africa's P&WC operators, giving 'near real-time' awareness about engine health, usage and trends."

Through this system, operators will receive information on trends and alerts within 15 minutes of an engine shut-down, helping to optimise dispatch reliability, maintenance and cost reduction. All this activity will support current operators in their move towards a fully planned and predictive environment.

P&WC is also working on creating and introducing new technologies to diagnose engine condition, which is particularly valuable in Africa's sometimes challenging operating environments and more remote areas.

"For instance," he said, "we are rolling out an innovative 'oil debris monitoring system' as a trial in Africa. This includes a 'free' oil sampling kit, together with pre-paid envelopes for sending samples for highly sensitive analysis during the trial period. This will assist operators on the continent by reducing maintenance costs, thus enabling enhanced budgeting and predictable maintenance.



Ismael Rhissa Zakary:
 “The vast majority of regional turboprops in Africa are powered by P&WC engines and so we want to improve our ‘proximity’ to operators throughout the continent by adding an enhanced technical presence.”

“Our latest video technology – ‘Onsight’ – launched this year, is a further aid to the operators, helping to ensure that their mechanics have an improved understanding of critical tasks.”

To enable all this to happen, P&WC is setting up a dedicated local team (with support from specialists in North America, Europe and the Middle East) that’s focused on reviewing African operators’ current and future needs

P&WC is also working closely with the World Food Programme (WFP) to support fleet operations in the humanitarian sector across Africa.

“The majority of aircraft contracted by the WFP are powered by our PT6A and PW 100 engines and this new partnership will give additional support, including participation in safety campaigns, training and maintenance best practices, engine updates and upgrades, and an

overview of newly-introduced techniques and technologies,” explained Rhissa Zakary.

Supporting him with this latest initiative from the Canadian OEM in Africa is Satheeshkumar Kumarasingam, VP business development and commercial services, and Carsten Behrens, general manager of P&WC’s customer service centre in Europe.

Essentially, said Rhissa Zakary, we need to listen to our customers more effectively, identify issues as they occur and customise our approach to the very specific operational demands of the African continent.

Some of the issues, he explained, are similar to those that P&WC has experienced in parts of the Far East and Asia Pacific regions, but others are specific to the unique operating environments of rural and isolated areas of the many and varied countries within the vast African continent.

SOMMAIRE

DES SERVICES DE SOUTIEN ACCRUS EN AFRIQUE

Pratt & Whitney Canada (P&WC) va renforcer les services de soutien à sa flotte pour ses clients en Afrique et attirer de nouveaux opérateurs pour ses turbopropulseurs. Des détails avec Geoff Thomas.

P&WC prévoit une croissance considérable du transport aérien en Afrique. Ismael Rhissa Zakary pilote le développement et la stratégie de P&WC sur le continent.

« Notre objectif est de structurer une équipe dédiée pour le déploiement de notre stratégie sur le continent. Les opérateurs africains auront besoin de plus de soutien, en particulier pour les avionneurs et les motoristes », affirme-t-il.

Les moteurs de P&WC équipent les familles d’avions ATR ainsi que les Bombardier Q Series et le Beechcraft 1900.

« Ces avions ont permis l’émergence des compagnies aériennes sur le marché régional et ils sont encore très reconnus en Afrique. Nous sommes également convaincus que les avions régionaux équipés de turbopropulseurs sont les mieux adaptés pour soutenir la croissance rapide sur le continent. »

Le manque de réseaux terrestres, l’étendue du continent et la connectivité intra-africaine ouvrent des perspectives durant la transition économique.

□□□□□

P&WC dispose d’une forte flotte de moteurs en Afrique avec plus de 2000 en service. Comment assurer son développement en Afrique ? Selon Ismael Rhissa Zakary, il faut améliorer la proximité avec les opérateurs africains grâce à un meilleur support technique.

« Nous avons entamé ce processus avec la mise en place de quatre nouvelles équipes basées à Lanseria (Afrique du Sud), Nairobi (Kenya), Doha (Qatar) et Toulouse (France). Elles pourront apporter davantage de support via les FBO et les opérateurs. »

Par ailleurs, P&WC améliore ses offres numériques avec le déploiement du système « FAST » sur le continent. Le motoriste travaille également à la création et à l’introduction de nouvelles technologies pour un diagnostic plus fiable du moteur, de la maintenance anticipée et une réduction des coûts.

Lancée en 2017, la dernière technologie « Onsight » sera une nouvelle aide aux opérateurs et en particulier aux mécaniciens lors des interventions sur les moteurs. Ces innovations numériques seront accompagnées d’une équipe locale dédiée avec le soutien des spécialistes de P&WC basés en Amérique du Nord, en Europe et au Moyen-Orient.

P&WC soutient également les actions humanitaires du Programme alimentaire mondial en Afrique.

Just over a year ago, Jean-Paul Boutibou became Bombardier Commercial Aircraft VP sales, Middle-East & Africa. Boutibou has two core beliefs for Africa; the market must walk before it can run and tap into economies of scale wherever possible.

Bombardier's big push to the front of the Q

With the shiny new Bombardier CSeries rolling off the production line, you would expect the aircraft's proud parent to be firmly focused on selling its new baby, but Bombardier Commercial Aircraft VP sales, Middle-East & Africa Jean-Paul Boutibou believes the Q400 is what Africa needs most.

"When I took over the region in April 2016, there was too much focus on the CSeries and not enough on the core products which really help airlines to grow. In Africa, the aircraft which I would say brings most value is the Q400," he said.

Every African country has a proud vision of creating their own flag carrier, particularly on long-haul. Fledgling carriers often fly the nest too early and fail, opening the market to European and Gulf rivals. To overcome this fragmentation, Boutibou said it makes sense to team up with bigger airlines like Ethiopian, which is currently evaluating projects in the two Congos, Ghana and Zimbabwe.



"To be able to compete [on long haul], you need to be able to fill seats. If you don't have the proper network and infrastructure to fill those seats, you lose money. If you lose money, you return aeroplanes and you leave the floor open to the big boys. Before running, [African airlines] should walk. To walk, you need the proper tool to address your domestic market and your prime regional market, and fill those seats. The Q400 is definitely the aircraft that we see as the entry level that will help airlines unlock their domestic market," Boutibou said.

Of course, Bombardier thinks the Q400 is the right tool to unlock Africa's potential, because it has "long legs" which fit well with the continent's truly vast domestic markets – like Congo - and can operate in difficult conditions. However, Boutibou said the Q400 and its rival, the ATR 72, have different capabilities.



Inside story: The Q400 offers a two-cabin configuration to create opportunities in new markets

"If you have a huge network in the one-hour range and you don't have to go beyond that, then you could take the ATR – but if you need flexibility, speed and want to go further, then the ATR will not do the job. Each product has their limitations. The ATR 72 and the Q400 are two completely different products," he said.

The renewed focus on the Q400 has triggered discussions – typically for two to four aircraft – with several airlines, including Air Cote d'Ivoire, Air Madagascar (subject to its new partnership with Air Austral), the new Air Senegal, Ethiopian Airlines and embattled LAM Mozambique.

"When I started, we had very few opportunities in Africa. When I look at the traction we are getting around this, it's amazing. We are busy and it's super exciting," he said. "There's no magic. If you don't go and talk and explain, then the entry level becomes Airbus A320 or 737 family aircraft, but that's too big."

This excess capacity leads to empty seats, lower yields and a struggle to cover costs, meaning the airline is not strong enough to support long-haul expansion. Instead, airlines like Rwandair has started with Q400s, moved on to CRJs and are now looking at the CSeries.

"If we want to be successful, we need to focus on the entry level, the Q400. We need to get there, get present, help the airlines grow and become profitable. Then you give them the next tool, the CSeries, then they can grow into the 737 and long haul," he said.

Several African narrowbody fleets – which typically favour the 737 over the A320 – are coming up for renewal, creating potential opportunities. The 100- to 130-seat CSeries sits between the Q400 and the 150-seat capacity of the A320/737, so Boutibou does not see Airbus and Boeing as direct rivals. "Yes, we are eating away at



“If we want to be successful, we need to focus on the entry level, the Q400. We need to get there, get present, help the airlines grow and become profitable.”

JEAN-PAUL BOUTIBOU

SOMMAIRE

LE PRAGMATISME DE BOMBARDIER EN AFRIQUE

Selon Jean-Paul Boutibou, les nouveaux opérateurs doivent s’allier aux compagnies plus importantes comme Ethiopian Airlines pour éviter toute fragmentation et assurer leur viabilité.

Bombardier croit que le Q400 correspond le mieux aux besoins du marché domestique et régional en Afrique. Il souligne que le Q400 et l’ATR 72 sont « deux produits complètement différents » avec de « différentes capacités ».

Le Q400 a déclenché des discussions avec plusieurs compagnies aériennes dont Air Côte d’Ivoire, Air Madagascar (sous réserve de son nouveau partenariat avec Air Austral), Air Sénégal, Ethiopian Airlines et LAM Mozambique.

Il est important de s’adapter à la réalité du marché et au contexte. Par exemple RwandAir a commencé avec le Q400, pour passer au CRJ et étudie maintenant le CSeries.

Bombardier suit attentivement le renouvellement des flottes africaines (en particulier celles commandées d’A320 et de B737) pour saisir les opportunités.

Jean-Paul Boutibou ne considère pas Airbus et Boeing comme « des rivaux directs ». Il préfère parler de « complémentarité ».

Air Tanzania qui opère déjà le Q400, a commandé deux CS300 et devient le client de lancement du CSeries en Afrique. « Nous voulons définitivement avoir Ethiopian Airlines on board. »

La compagnie examine actuellement l’acquisition de plus de Q400 et une commande d’environ 15 CSeries. Bombardier souhaite développer des centres de formation sur le continent pour le CSeries. « Ethiopian Airlines possède une solide base technique et de formation. Nous envisageons d’y installer un simulateur pour couvrir l’Afrique de l’Est. »

Egyptair intéresse également l’avionneur. La compagnie compte acquérir 45 avions.

Les pays d’Afrique du Nord ont un énorme potentiel et Bombardier envisage des synergies entre cette région et le Moyen-Orient.

L’avionneur mise ainsi sur ses centres régionaux pour soutenir son expansion africaine.

Bombardier pourrait livrer le Q400 commandé par Air Sénégal SA au plus tard début 2018 ou proposer une solution provisoire de location pour l’ouverture du nouvel aéroport de Dakar. Par ailleurs, Bombardier envisage de doubler la taille de son usine de Casablanca.

the bottom end of their product line, but this is not where they get their money. We see ourselves complementing them; this is what happened with Delta, where the CSeries has been brought in to complement the A321.”

Existing Q400 operator Air Tanzania has already signed up for two CS300s, beating Ethiopian Airlines to become Bombardier’s African CSeries launch customer. “Ethiopian is definitely an airline we want to have on board,” Boutibou said.

The Addis Ababa-based carrier is currently looking at more Q400s and a potential order for up to 15 CSeries. But while Ethiopian would undoubtedly be a flagship customer, Boutibou stressed there is a bigger-picture angle to securing Ethiopian on the CSeries programme.

“They are really technically

Continued
on Page 84

CONTINUED FROM PAGE 83

advanced and we will need a very strong technical partner to support that aircraft. On the CSeries, the objective would be to grow training facilities on the continent using the different campaigns we are engaged on. Ethiopian has a very strong technical and training base. We are considering basing a simulator there, to cover the east part of Africa."

Another flagship target is EgyptAir, which has a request for proposals out for 45 aircraft, including 12 in the CSeries size range. Like Ethiopian, this represents a bigger opportunity than a simple – if comparatively large – aircraft sale.

"If we win there, we would be considering EgyptAir as a future base to support the requirements that could come out of Algeria and Tunisia, for instance, which would see smaller fleets. Due to the proximity and the relationship between these countries, we could look at a lot of synergies in that part of the Middle East and North Africa."

This is particularly relevant as Royal Air Maroc is potentially on the market for more than 15 CSeries to replace its E190s, some of their B737s and complement the B737-800, following a request for information which went out in 2016. Likewise, Tunisair is another potential customer as it ponders its narrowbody replacement. "We see a lot of potential there," Boutibou said.



He added that it is not an either-or decision between Ethiopian and EgyptAir when it comes to CSeries support. "It could be both," he said. Bombardier already has its own regional technical support office and spares facility in Johannesburg, Samco has line and heavy maintenance facilities in Ghana, Kenya and Nigeria, plus Ethiopian is an approved Q400 repair and training provider.

This type of regional support consolidation also applies to the Q400. "Because of market fragmentation, you don't have large fleets, but its strategically important for us to be present everywhere. This way, you can really bring economies of scales between countries and by region. If you look at Ethiopian, they have 19 Q400s today, so we have a dedicated technical team on site, but if you have four or five neighbouring countries with two, three or four

Casablanca plant could double in size

Bombardier is considering doubling the size of its state-of-the-art manufacturing facility in Casablanca and bringing CSeries work to Africa.

At the moment, the Casablanca facility produces prime structures, such as flaps and slats, for the CRJ programme. However, with the ramp up in CSeries production, Bombardier is considering growing the facility with CSeries parts.

"It is already the largest aerospace production facility in Morocco by far and, because of the addition of the CSeries programme, we are looking at doubling the size," Boutibou said.

This could see the airframer move some of Casablanca's current CRJ work to Mexico, making way for the CSeries ramp up in Casablanca and Belfast.

"The Casablanca facility really is brand new and state-of-the-art. It is very strong on composites and the aluminium-titanium mix that we are using. We are very proud of that factory and we look forward to growing it. Last time I went there, I said I should have my office here," Boutibou said.



While Casablanca could benefit from some extra work, final aircraft assembly will continue in Canada.

Bombardier is in a real ramp-up phase with the CSeries, after launching the CS100 with Swiss International Airlines and the CS300 soon after with airBaltic. In Africa, Air Tanzania is the programme launch customer.

"Today, the momentum on the programme is good. We have 356 firm orders, including lessors, prime mainline carriers and low-cost carriers. That helps us grow the image of the product on the market. We are looking forward to delivering to Korean this year – our third operator on the CSeries."

There are no CSeries delivery slots available in 2017, but Bombardier is still hoping to secure some leading names like Ethiopian Airlines onto the programme. Outside of Africa, it has already secured Air Canada, Delta Air Lines and Lufthansa as customers.

"We have no white tails; the production line is pretty full. We don't produce aircraft, put them on the shelf and wait airlines to come along. We have to run a business and make sure we produce aircraft as they are committed," Boutibou said.

aircraft, you can base one person there and you can be present and be with them, really benefitting from that scale."

One of Ethiopian's strongest assets is the absence of government intervention, despite the airline being state-owned. Boutibou said he has seen the same approach in other countries, such as Rwanda.

"We had discussions with [Rwandan president] Paul Kagame. He said he relies on his people. If they tell him this is the aircraft they need, and if it makes sense in the global picture, then he will support them. He's not going to tell them 'you need to take this, this and this.' This is great and I hope that we will see this more and more in other countries." Rwandair already operates two CRJ900s and is evaluating the CSeries to feed its newly acquired long-haul fleet.

In the slightly longer term, Bombardier is hoping to get involved in the 737-300 renewal at Kenya Airways low-cost carrier JamboJet, as well as its Embraer 190 replacement which is due to come up around 2020 covering up to 20 aircraft. However, Boutibou said this will depend on Kenya Airways' ongoing restructuring.



Finally, Boutibou is looking at the potential emerging from the new Air Senegal, which is considering launching operations with 2 Turbo-Props. In total, the fledgling carrier is considering two 70 seater, around six CSeries-sized aircraft and two widebodies under a fleet plan which consultancy firm Seabury is helping to develop.

"Among the first products they wanted to look at was the CSeries, and at the bottom end they were looking at the ATR," Boutibou said. However, Bombardier managed to get the Q400 evaluated in the mix and submitted its proposal in February. The turboprop decision is expected first, followed later by the CSeries decision.

Timelines for the project are ambitious, with a planned launch in the third quarter of this year or in early 2018, ideally to coincide with the opening of Dakar's new airport. Boutibou said Bombardier could deliver the Q400s in December at a push, or in early 2018, or offer an interim wet-lease solution before then.

"In Senegal, their prime business is Paris, Washington and New York, so you could start with a 787 or an A330 and you're going to have your market." This might lead to load factors of 70-80%, but domestic and regional feeder flights will help fill the remainder. "I think there's a real need and the potential is there," Boutibou said.

A new Air Senegal would help the West African market, which is characterised by vast, underserved markets. "We met recently with the new aviation minister of Ghana, which has tremendous potential. Again, we tried to explain that the regional market is what you need to capitalise on to grow."

Hopefully, all this growth will be slow and steady, creating sustainable economies of scale for Africa.



Ethiopian is an approved Q400 repair and training provider.



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Professional migration is

The African airline industry is facing a critical shortage of well-trained aviation professionals. Kalesyesus Bekele has been looking at the problem.

African aviation authorities and airline executives believe there are two main reasons for the continent's current shortage of aviation professionals – the lack of aviation training centres, which means sending students away for training is both cumbersome and costly, and the brain drain.

Shortage of aviation professionals was one of the main topics discussed at the fourth International Civil Aviation Organization (ICAO) global training and trainer-plus symposium, held in Addis Ababa, Ethiopia from April 11-13.

Ethiopian Airlines hosted the conference, the first of its kind in Africa.

Ethiopian Airlines Group CEO, Tewolde Gebremariam, said that the African continent is suffering from shortage of aviation professionals, particularly pilots, aircraft technicians and engineers.

"It's mainly because there is not enough training available in the continent, and there are not enough training centres. Migration of skilled manpower to the developed world is also a challenge," he said.



With a population of more than one billion people and a large landmass, Africa is a huge continent. But the aviation sector is under developed. Africa contributes only 3% to the global air transport industry.

"All of us in Africa are concerned that the aviation sector is not developing as fast as the economic growth in the continent," added the Ethiopian Airlines Group boss.

African pilots and technicians are migrating to the Middle East in search of better payments. Recently, pilots and technicians from Kenya Airways and South African Airways left in large numbers to join Gulf carriers.

Interestingly, some African airlines, including Ethiopian, hire pilots from other regions – particularly Europe.

African air traffic controllers and radar technicians also migrate to other regions. Colonel Wossenyeleh Hunegnaw, director general of the Ethiopian Civil Aviation Authority, said staff retention is the biggest challenge his authority faces at the moment.

A recent market forecast by Airbus indicates that Africa would need 1,000 commercial jet aircraft and 21,700 new pilots in the coming 20 years, while Boeing estimates that Africa would



Fang Liu (above) granted trainer-plus membership certificates to 14 CAAs, aviation universities and training centres.

demand 18,000 new pilots and 22,000 technicians over the same time period.

ICAO secretary general, Fang Liu, said that in the last 10 years air transport has continued to grow, leading to many new airlines entering the market and the highest aircraft orders ever registered. "Over the next 20 years new aircraft will need to be commanded by qualified pilots and maintained by skilled technicians and managed by competent air traffic controllers. But, as we are witnessing a shortfall in training capacity, aviation training gaps could rise in many regions," she warned.

According to Liu, African aviation will be growing in the coming years along with African economic development. "Air transport is not only a transportation means but also an economic enabler and driver of national and economic development. However, in order to further develop aviation, human capacity is a key. As we know, there is a gap between the number of professionals sought and the training capacity, in particular in Africa."

Liu, who lauded the establishment of the Association of African Aviation Training

the growing challenge...

Organizations, said ICAO is working hard with African states to further develop aviation training entities. "We want to see how to strengthen aviation subjects in the universities and also promote aviation in existing university programmes."

She advised African states to properly manage and plan their human resources. "The rapid increase in deployment of new technologies across every major industrial sector has led to tremendous competition globally for qualified professionals, which poses further challenges for aviation," Liu said.

She said that ICAO and its member states must take account of attrition in all human resource planning. "Cooperation is an important factor in our training capacity solutions for short and long term success. This is a perfect opportunity to increase state-to-state coordination."

The forum stressed the need to forge collaboration among training centres, partnerships between universities and training

organisations, to form regional associations and share resources.

Liu said ICAO had developed the Aviation Safety in Africa (AFI) plan with the view of assisting member states to meet her organisation's safety standards. "I should emphasise that ICAO can only be effective when governments take ownership and have the political will and commitment to effectively implement our standards," she added.



Under AFI, African member states have set up targets for effective implementation of ICAO standards called the Abuja safety plan. It means ICAO cooperates with African member states, the African Civil Aviation Commission (AFCAC), the African Union and the industry.

"ICAO's team in our African regional offices in Nairobi and Dakar help member states as a first priority in addressing significant safety concerns," explained Liu, adding that, with

projected African traffic growth in the coming years, ICAO encourages member states to proportionally increase investment in financial and human resources to strengthen their safety oversight functions.

"In the coming years safety remains the priority for every state, including African states. Without aviation safety, the air transport development could not be sustained," said Liu. "It is extremely important that we encourage member states to invest in civil aviation authorities (CAAs) and empower them with appropriate human and financial resources that enable them to undertake proper safety oversight so they can further develop aviation in a safe and secure manner."

It was agreed that ICAO would coordinate with regional training organisations on the implementation of the AFI plan framework to ensure the relevance of the training offered.

During the course of the conference Liu granted trainer-plus membership certificates to 14 CAAs, aviation universities and training centres.

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The Ethiopian Aviation Academy (EAA) is a globally accredited facility aiming to train increasing numbers of vitally important African aviation professionals.

Kaleyesus Bekele looks at the story so far.

EAA still giving a helping hand to aviation shortages

Ethiopian Airlines has always believed in self-sufficiency, which is why its training centre is as old as the airline itself.

Back in 1951, the Ethiopian Civil Aviation Training Center (ECAA) was established with the support of the International Civil Aviation Organization (ICAO) and United Nations Development Program (UNDP).

Later, the centre became the ECAA technical training school, tasked with training aviation maintenance technicians, meteorology specialists, and air traffic controllers.

The school was later named the National Airline Training Project (NATP). It was a joint project by Trans World Airlines (TWA), the US airline that had contractual management agreement with the Ethiopian Government to establish and manage Ethiopian Airlines, ECAA and the US Department of Transport.

NATP was engaged in training aircraft maintenance technicians, pilots and other airline personnel. It added a civilian pilot training programme around 1959.

When the UNDP programme and NATP was discontinued, Ethiopian Airlines had to form its own pilot training centre in 1964. Later, the Aircraft Maintenance Technicians School (MTS) was established.



In 1975, the Ethiopian Training Center was recognised by the African Civil Aviation Commission (AFCAC) as the African aviation-training centre for the Anglophone countries. Its name was changed to the Ethiopian Airlines training centre in the 1980s.

Over the years, the centre has evolved through different phases and transformed into its current state – the Ethiopian Aviation Academy (EAA). Today it is one of the largest and most modern facilities in the region.

The EAA is one of the seven business units of the Ethiopian Airlines Aviation Group, with its own vision and mission.

The aviation academy has five different schools – pilot training, aircraft maintenance technicians, cabin crew and catering, leadership and career development, and commercial and



ground services. So far, 13,600 students have graduated from EAA, of which more than 12,000 have been Ethiopians and the rest foreign nationals.

The aviation academy's prime task is to train and supply the required skilled manpower to the national airline. It has also been training airline personnel from various African countries. Ethiopian Airlines pioneered training in Africa. In 1959, the centre took students from three other African nations – five from Uganda, five from Kenya and four from Tanzania.

EAA managing director, Solomon Debebe, said one of the African aviation industry's daunting challenges was the availability of the required quantity and quality of people. "In addition to catering for its own manpower needs, Ethiopian Airlines has also been contributing to the growth of the African aviation industry from the very beginning," he added.

Ethiopian Airlines has been growing fast in the past 10 years and meeting the demand for human capital is a challenge. In 2011, the airline launched a 15-year development strategy dubbed Vision 2025 that propelled its growth to the next level. Human resource development is one of the four pillars of Vision 2025 that has transformed the airline into a leading African aviation group.

With the acquisition of a large number of new, modern aircraft, the airline was in need of pilots, technicians and cabin crew. It was even compelled to hire foreign pilots.

In a bid to meet the growing demand and grow its third-party business, Ethiopian's management decided to invest heavily in its aviation academy.

Debebe, a product of the academy himself, graduating in 1979, said management decided to expand the academy with the view to providing manpower, not only to Ethiopian airlines but also to other African countries.



In 2014-2015 the airline spent more than \$100 million to build modern buildings for the aviation academy, purchase equipment like the cabin mock-up, trainer aircraft, different flight training devices and flight simulators. Ethiopian Prime Minister, Hailemariam Desalegn, inaugurated the academy's expansion project in February 2016.

The academy boosted its annual intake capacity to 1,000 trainee pilots, technicians and cabin crew. "Currently, we have close to 700 trainees studying different disciplines because we graduated 400 trainees in April 2017," said Debebe.

According to the managing director,

“In addition to catering for its own manpower needs, Ethiopian Airlines has also been contributing to the growth of the African aviation industry from the very beginning.”

SOLOMON DEBEBE



Ethiopian Airlines needs 500 pilots annually but the academy can manage just 200. “The pilot training school is doing its level best to cater the airline’s demands but we have a number of constraints,” he lamented.

The academy has 24 trainer aircraft, a mix of Cessna and Diamond aircraft. “We have full glass cockpit Diamond 40 and 42 trainer aircraft. They are very modern and technologically advanced. The avionic system is very sophisticated,” Debebe said.

The flight school also has three full-motion flight simulators for Diamond aircraft and two for Cessnas. Ethiopian Airlines Flight Operations has flight simulators for the Q400, B737, B757-767, B787 and B777 aircraft. It will soon acquire an Airbus A350 simulator. The aviation academy is tasked with the responsibility of selling the flight simulator capacity.

“Shortage of supply of highly qualified instructors is a big problem,” explained Debebe.

“We take aviation academy graduates and, with further training programmes, we make them qualified instructors. Until we have an adequate number of instructors we have temporarily suspended admitting foreign cadets. We have to first satisfy the airline’s demands for new pilots.

“However, we are handling line training, type

rating and things like that so that we keep in touch with our customers,” he added.

The academy is working to solve the instructor shortage and resume admitting foreign cadets as of next year.

In 2011 the pilot training school, in partnership with Flight Path International of Canada, launched the multi-crew pilot-licensing (MPL) programme. “Compared to the commercial pilot licensing (CPL) programme, this is more competency-based and airline oriented,” said Debebe.



The MPL is very simulator dominated and targets a certain type of aircraft. “It is cost-effective. With the CPL you have 140 hours of flight training whereas, with the MPL, you have less than 90 hours. It is about 14-16 months as opposed to 18-20 months for the CPL training.”

Ethiopian Airlines pioneered its MPL program in Africa. To date 300 cadets have been trained with the MPL at EAA.

The other challenge the flight school is facing is runway congestion at Addis Ababa Bole International Airport, where the academy is located. The airport has only one runway so cadets cannot take off or land between 07am and 11am.

The academy is now in the process of building

a new pilot training school in Hawassa Airport, one of the regional towns located 275km south of Addis Ababa. “We have already secured a plot of land in the airport from the Ethiopian Airports Authority. The new flight school will have its own runway, dormitories, canteen and all other required facilities,” Debebe said.

“The big challenge will be to aggressively promote and sell our additional capacity. To that end, there is a department – sales and business development – tasked with marketing the academy.

“Ethiopian Airlines is now better positioned to address Africa’s growing demand for airline personnel. The task ahead is to communicate what we have and to be competitive.”

As part of its endeavour, EAA has a plan to branch out to other African nations. Currently, the academy is aiming to build an aviation academy for Francophone countries in west Africa.

Senior Ethiopian Airlines executives are in discussions with the Government of Togo about the possibility that Ethiopian and Asky Airlines could jointly build an aviation academy in Lome. Ethiopian has a 40% stake on Asky, a Lome-based private airline.

EAA is aiming to generate an annual revenue of \$78.9 million with an annual intake capacity of 4,000 trainees by 2025.

Slim Essoussi: "L'objectif de ce centre est de former de futurs techniciens de maintenance, non seulement pour le compte de Tunisair Technics, la filiale MRO du Groupe Tunisair, mais aussi pour les compagnies aériennes d'Afrique, d'Europe du Sud et du Moyen-Orient, clientes d'Airbus."



TUNISAIR TECHNICS DEVELOPPE SES CAPACITES MRO

Tunisair Technics a inauguré en février dernier, le premier centre de formation en maintenance aéronautique civile en Afrique sur l'aéroport international de Tunis-Carthage. Un reportage de Vincent Chappard.

Ce nouveau centre de formation MRO est le fruit d'un partenariat signé le 17 juin 2015 avec Airbus. Le Groupe Tunisair disposera des outils de formation et des techniques d'enseignement d'Airbus pour la MRO des avions A320 et A330 dans la région. Le centre est également qualifié pour l'ATR et le CRJ.

« L'objectif de ce centre est de former de futurs techniciens de maintenance, non seulement pour le compte de Tunisair Technics, la filiale MRO du Groupe Tunisair, mais aussi pour les compagnies aériennes d'Afrique, d'Europe du Sud et du Moyen-Orient, clientes d'Airbus », affirme Slim Essoussi, Directeur Ventes et Relations Clients de Tunisair Technics.

Ce centre, une première en Afrique. Il assurera les formations réglementaires comme EWIS, CDCCL ou HF. Fabrice Hamel, le directeur général du Training Centre d'Airbus soutient que la formation est « un pont stratégique » pour la croissance de l'industrie du transport aérien.

Outre la formation du groupe Tunisair, des sessions de qualification sont prévues avec Libyan Wings et Libyan Airlines.

« Des actions de marketing seront lancées avant la fin de

l'année vers des clients potentiels en Afrique », souligne Slim Essoussi. « Nous pensons à des opérateurs d'avions de la famille A320 et A330 en Afrique de l'Ouest qui seraient sensibles à une prestation de qualité avec des coûts très compétitifs. »

La situation du transport aérien laisse également augurer de bonnes perspectives pour Tunisair Technics sur le marché de la formation en MRO. « Il y a une forte croissance du trafic en Afrique et au Moyen-Orient. Pour Slim Essoussi, les grands opérateurs MRO européens se délestent progressivement de leurs activités de maintenance pour les avions au profit de la maintenance moteurs ou des atterrisseurs. Elles sont plus lucratives mais nécessitent davantage d'investissements. Les travaux de maintenance « avions » seront donc de plus en plus confiés à des ateliers MRO « low cost » par le biais de la sous-traitance ou de partenariats.



En raison de leur proximité avec l'Europe, les coûts extrêmement compétitifs et un environnement attractif, Tunisair Technics souhaite se positionner sur ce marché.

Tunisair Technics monte également en puissance sur le marché de la MRO. Elle dispose d'un hangar de 8000 m² pouvant accueillir 5 monocouloirs ou 2 gros-porteurs ainsi que des ateliers de révision. Elle propose ses services au groupe Tunisair (93% de son activité) et a également des clients réguliers de compagnies libyennes et tunisiennes. Les installations MRO sont agréées Part 145 par l'EASA.

Tunisair Technics a participé à de nombreuses manifestations aéronautiques en Afrique pour accroître sa visibilité.

« Nous allons lancer fin 2017, la construction d'un nouvel hangar pour accroître notre capacité », ajoute Slim Essoussi. « Un plan de modernisation de nos ateliers de maintenance des équipements a également été initié depuis avril 2017. »

Dans ce contexte, Tunisair Technics souhaite devenir un acteur majeur de la MRO en Afrique et en Europe du Sud.

SUMMARY

TUNISAIR TECHNICS EXPANDS MRO OPERATION

Tunisair Technics has opened Africa's first MRO training centre at Tunis-Carthage International Airport.

Opened in February, the initiative follows a 2015 partnership deal with Airbus, meaning that Tunisair Group will use the OEM's teaching tools when training its technicians to service the region's A320 and A330 aircraft as well as ATR and CRJ airframes.

The centre will also train MRO technicians from airlines using Airbus equipment throughout the region including Africa,

southern Europe and the Middle East.

This centre is only the sixth of its kind worldwide and will be certified to EASA Part 147 standards.

The facility comprises an 8,000sqm hangar that accommodates five single-aisle or two wide-body aircraft. Currently more than 93% of its business is with Tunisair and Tunisair Express, although it hopes to increase MRO for other airlines thanks to a new hangar, construction of which will begin by the end of this year.



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The aviation industry relies extensively on computer systems for both ground and flight operations but, increasingly, they are becoming vulnerable to attack.

Steve Knight looks at what precautions African airlines can take to create and maintain cyber security.

HACKTION STATIONS

There is no doubt that computer systems are changing the way we all live and work – and never more so than in the aviation industry.

Some systems are directly relevant to the safety of aircraft in flight, others are operationally important, and many directly affect the service, reputation and financial health of the industry.

Despite the fact that Africa still has the lowest overall internet population penetration rate – just 28.7% in June 2016 – its airlines are competing in a global marketplace and have to be judged against international standards.

And, with the continent's proven ability to technology jump, for example moving from little or no IT straight into mobile devices, aviation cyber security concerns are growing at a rapid pace.

So where does this leave some of the smaller African airlines, often under-resourced and struggling to keep their heads above water, and what can they do to protect themselves and stay secure in the modern technology minefield?

Cyber expert Oliver Pinson-Roxburgh, EMEA director for solutions architecture at Alert Logic, has a very clear view, particularly about the ground-based areas of security: "First things first, you need to decide what is the right level of security for your business and you need to know what is at risk," he said.

"You should consider all processes involved that require you to collect, store, use and dispose of data.

"The next step is to consider how valuable, sensitive or confidential the information is and what damage could be caused if there was a security breach."

Pinson-Roxburgh, who has worked in the security industry for 15 years, believes that understanding data is hyper critical – particularly as it allows organisations to become audit ready and on track to address the next steps for general data protection regulation (GDPR).

"The airline industry challenge is the breadth of sensitive data that is both accessed and maintained, as well as very large disparate networks being managed," he said. "In addition, many airlines are innovating their approaches with mobile apps and online tools. As an



Oliver Pinson-Roxburgh: "You should consider all processes that require you to collect, store, use and dispose of data."

organisation grows and uses different systems, so does its attack surface area."

Pinson-Roxburgh was keen to warn against cutting corners on security. "If people were tempted – and I wouldn't advise it for this type of industry – to adopt open source solutions, for example, the costs can seem minimal on the face of it but, overall, to manage and maintain they will get into the tens of thousands of dollars without factoring in staff to monitor the solutions on an on-going basis.

"Expertise to secure a network is normally based on the amount of in-sourcing businesses will do. To stand up to the attacks of today, lacking good analysts will affect your effectiveness to spot attacks and be able to respond to an incident.

"Again, if you look to in-source the detection, you will need intelligence teams to research the latest threats and ensure you have a fighting chance of keeping ahead of even the most basic low-level attacks."

Some African airlines' problems could be even more basic, according to Noel Hannan, cyber and digital innovation lead at GoSecure

UK. His company is a subsidiary of C3IA Solutions, which is one of only 13 businesses to be certified by the UK Government's new National Cyber Security Centre (NCSC).

"If we take the principles of confidentiality, integrity and availability as the three tenets of cyber security, then availability may well be the overriding requirement – or have the highest business impact – for an African airline," he said.

"For anyone attempting to develop international and/or internal airline operations in-country, the desire to leverage information technology as a force multiplier is obvious. If a small organisation can manage its own scheduling, fleet maintenance, supply chain and online booking, in addition to interfacing safely with other organisations continent-wide and internationally, then it stands a good chance of survival in a hostile commercial environment.

"However, in practical terms, if system outages, for example, were to ground aircraft, revenue would quickly dry up. Typical sources of system outages could centre around power distribution, which is a continent-wide issue.

"Any airline would need to focus on the reliable distribution of power to its information systems, its locations and its facilities, as the highest priority."

Additionally, heating, ventilation and air conditioning provisioning all need to be addressed, as failures in these services in the varied but uniformly demanding African environments would have a damaging effect to the availability of critical systems.

According to Hannan, technical issues, too, could affect smaller airlines.

"There is a predominance of old technology in use in Africa, which presents a significant challenge in terms of cyber security," he said "The technical vulnerabilities of unsupported operating systems such as Windows XP are well documented and would present a large attack surface to any aggressor. Additionally, external organisations, perhaps themselves beholden to European or US legislation, may be unwilling or unable to accept interfacing to such risky systems. Use of legacy technology could, therefore, isolate an organisation inside its own borders."

Of course, in some other areas of the world, airlines would naturally look straight to cloud



Under attack:
The cyber threat is
growing for African airlines.

solutions. But would such solutions be available (and affordable) to an African company?

“Hosted outside the continent, this would certainly make elements of the availability problems go away,” said Hannan. “However, this would be limited to the offshore elements of the system. The client devices and local internet connectivity would still be subject to home-grown issues, and the provision of service would also be entirely dependent on availability of suitable bandwidth in and out of the country.”

He also pointed out that African companies were also unlikely to have much internal government support in terms of cyber security, such as a national strategy, a national computer emergency response team (CERT), or a national technical authority to turn to for advice and assistance at times of crisis (Tunisia is a rare exception, with a CERT established for some time).

However, there is some help at hand. In 2015, the International Air Transport Association (IATA) published the second edition of its aviation cyber security toolkit to assist airlines in

The Alert Logic 10 top tips for basic cyber security

1. **Train to design secure code and build in security from the beginning.**
2. **Classify your data and know where it is.**
3. **Monitor and be ready to respond to incident (GDPR breach notification within 72 hours).**
4. **Adopt a patch management approach.**
5. **Review logs regularly.**
6. **Build a security toolkit (in-house is hard to manage for small teams so consider outsourcing where skills are lacking).**
7. **Stay informed of the latest vulnerabilities that may affect you.**
8. **Understand any cloud service provider's security model.**
9. **Create access management policies.**
10. **Know your adversaries.**

raising awareness and understanding the cyber risks to their organisations. The toolkit includes:

- A situational assessment of cyber security in the industry;
- An introduction to cyber threats;
- A framework for assessing risk; and
- Guidance material for setting up a cyber security management system.

The content will be included in this year's edition of the organisation's security manual.

IATA also runs three-day aviation cyber security workshops in various locations around the world – the next is in London on May 3, followed by another in Istanbul later the same month.

The organisation says that after completing this course people will be able to locate and prioritise cyber risks in their aviation businesses, deploy assessment tools for specific cyber-related risk, analyse their company's cyber risk profile, recommend risk mitigation processes, and implement cyber security management system (CSMS) guiding principles within their businesses.



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Measures that help African nations to pool resources and help weaker members to improve their aviation oversight activities are having a real effect in raising safety standards throughout the continent, reports Alan Dron.

Pools make waves in the drive to up safety standards

«S'unir pour améliorer la sûreté aérienne» – Page 96

Not so long ago, Africa was considered to be an accident blackspot, a continent where airlines with a sketchy grasp of safety and poor regulatory oversight combined to pull down the global average of airline accidents.

Much has changed in recent years, as international organisations and national governments come together to improve safety standards. In fact, noted Mam Sait Jallow, the International Civil Aviation Organization's (ICAO) regional director for western and central Africa, although still higher than the world average, accident rates in the region have been decreasing and there were no fatal accidents in Africa in 2015.

Africa was the first region globally to set aviation safety targets, through a portfolio of measures agreed at a conference of transport ministers on aviation safety in Africa, held in Abuja, Nigeria in 2012.

"Those targets have helped us focus on directing our assistance to the regional priorities," said Jallow. "Today, around half of African countries have met the key target of attaining a safety oversight effective implementation level of 60%. A number of other states are making reasonable progress



"Today, around half of African countries have met the key target of attaining a safety oversight effective implementation level of 60%."

MAM SAIT JALLOW

towards the targets, but there are still around 10% that are struggling and that we are assisting as priority.

"In support of its 'no country left behind' initiative, the ICAO Council introduced the 'council president certificate' to recognise states that have made significant progress in resolving their safety oversight deficiencies and improving the effective implementation of ICAO standards and recommended practices. Such certificates were issued for the first time during the ICAO Assembly in Montreal in 2016, when out of 14 recipient states, five were African."

One indicator of the improving safety landscape on the continent comes in the form of ICAO's 'significant safety concerns' (SSCs). The complete resolution of these is one of the Abuja safety targets. In the past five years, there have been 20 SSCs, spread over 13 African nations; these have been reduced to just three in three countries today.

In past years, the biggest safety problems facing the continent had been certification of air operators, licensing of personnel and airworthiness of aircraft, said Jallow. "Those areas have now been significantly improved and strengthened in most states."

Continued
on Page 96

CONTINUED FROM PAGE 95

Today, one of the biggest challenges in Africa is air navigation services – particularly the supervision of such services when provided by a multi-national agency.

“Regulation by individual countries over such an entity is still weak. States are improving, but haven’t been able to coordinate their supervision of multi-national agencies.”

Certification of aerodromes remains another challenge: “Only 23% of all aerodromes in Africa are certified by the local aviation authorities; that doesn’t mean they’re not safe, but there’s an obligation on each state that they certify all international aerodromes within their territories.”

ICAO, the United Nations body that helps to set international standards and recommended practices, is helping African governments get to grips with these problems.

“We encourage countries to come together and have a common supervisory entity at regional level. That provides economies of scale,” said Jallow. Several of these regional safety oversight organisations (RSOOs) have now been created, although they face challenges of sustainability in terms of funding and effectiveness.

ICAO is also assisting African nations build accident investigation capabilities. “It is a requirement that states establish structures to ensure the independence of aircraft accident and serious incident investigation. This is a very challenging area for individual countries and a lot of states are yet to do so.

“We do, however, have a good example in Africa today in the Banjul Accord Group (BAG) of seven countries – Cape Verde, Ghana, Gambia, Guinea, Liberia, Nigeria, and Sierra Leone – that have come together to create a regional accident investigation agency, BAGAIA, to handle inquiries into crashes or other serious incidents on behalf of its members.

ICAO aims to help states build capacity to effectively oversee and efficiently develop their aviation sectors so as to realise the socio-economic benefits associated with the industry.

Jallow says that while ICAO is making tremendous efforts in this area, they must be complemented by high-level commitment from states, and reinforced through partnerships for aviation development throughout the continent.

The latest milestone in that process came in late March 2017, when 200 participants from 48 states and 32 international organisations met at a joint global forum on RSOOs in Ezulwini, Swaziland.

Organised jointly by ICAO and the European Aviation Safety Agency (EASA), it made

significant progress on improving the cooperation and efficiency of RSOOs, both in ICAO’s Africa and Indian Ocean region, and globally.

A ministerial-level event, held jointly with the forum, also led to a declaration by 13 ministers on how African states will work to refine their collaborative efforts and improve aviation safety oversight.

Of course, there is no end to the search for safety: “It’s a continuous process that needs continuous improvement,” said Jallow.

SOMMAIRE

S’UNIR POUR AMÉLIORER LA SÛRETÉ AÉRIENNE

Les mesures visant à mutualiser les ressources des pays africains et à aider ceux à la traîne en matière de sûreté aérienne commencent à avoir un impact positif sur le respect des normes à travers le continent. Le point avec Alan Dron.

Jusqu’à récemment, l’Afrique était le point noir concernant les accidents, un continent où les compagnies aériennes avaient une faible compréhension des problématiques de sûreté et de respect des normes.

Cette donne a changé ces dernières années. Les organisations internationales et les gouvernements s’unissent pour gagner la bataille de la sécurité.

L’Afrique a été le premier continent à se fixer des objectifs de sécurité aérienne décidés lors de la conférence des ministres des transports à Abuja en 2012.

□□□□□

Selon Mam Sait Jallow, directeur régional de l’OACI pour l’Afrique centrale et de l’Ouest, presque la moitié des pays africains ont aujourd’hui atteint un taux de 60% relatif à l’application des mesures de sûreté aérienne. D’autres États font de véritables progrès. Il reste environ 10% des pays qui se battent avec l’aide de l’OACI.

Pour soutenir l’initiative « no country left behind », le Conseil de l’OACI a récemment mis en place un certificat visant à reconnaître les États ayant accompli d’importants progrès dans la

résolution de leurs problèmes de sécurité et dans la mise en œuvre des normes de l’organisation.

Aujourd’hui, l’un des défis majeurs en Afrique reste les services liés à la navigation aérienne. La certification des aérodromes est un autre défi. 23% d’entre eux font l’objet d’une certification par les autorités locales. L’OACI apporte son soutien aux gouvernements africains dans ce domaine.

Elle encourage également les pays africains à travailler ensemble autour d’organisations régionales de surveillance de la sûreté aérienne (RSO). Plusieurs entités ont ainsi été créées. Elles sont souvent confrontées à des problématiques de financement et d’efficacité. Un forum mondial s’est d’ailleurs tenu sur ce thème en mars dernier à Ezulwini, au Swaziland.

Selon l’OACI, l’engagement des États et le partenariat sont indispensables pour pérenniser le développement de l’industrie sur tout le continent.

Par ailleurs, l’OACI aide les pays africains à créer des équipes d’enquêtes pour mener les investigations lors d’accidents aériens. A titre d’exemple, sept pays (Cap-Vert, Ghana, Gambie, Guinée, Libéria, Nigéria et Sierra Leone) se sont regroupés pour créer la BAGAIA, une agence qui prend en charge les enquêtes sur les crashes et les incidents aériens au nom de ses membres.



During the opening ceremonies of ICAO’s 39th Assembly, States representing all ICAO Regions received inaugural Council President Certificates in recognition of significant progress in resolving safety oversight deficiencies and improving the effective implementation of ICAO Standards and Recommended Practices. Five were from Africa.



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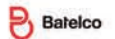
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Aviation Africa, the exhibition and summit covering the full aviation and aerospace spectrum across the African continent, is to hold its third edition in Cairo on April 17-18 2018 under the auspices of the Egyptian Ministry of Civil Aviation.

Aviation Africa heads for Cairo



Aviation Minister Sherif Fathi Attia centre with Aviation Africa's Mark Brown and Alan Peaford as the Egyptian Government agrees to host the 2018 Summit.

Building blocks for North African revival will be the theme of the two-day summit, which will focus on the key drivers to grow business and opportunities across the region.

Alongside the summit will be an exhibition area featuring more than 50 companies and organisations.

His Excellency, Sherif Fathi Attia, the Minister of Civil Aviation, said he welcomed the decision to bring the summit to Cairo. "We are working with the event organiser to shape the agenda," he said.

"There are key issues affecting Africa in general – North Africa in particular – in subjects like aviation security, infrastructure needs and regional cooperation. The Egyptian Government is lending its full support and will be inviting our neighbours and friends across the region to be part of this important event."

SOMMAIRE

AVIATION AFRICA SE DIRIGE VERS LE CAIRE

Aviation Africa 2018 se tiendra les 17 et 18 avril au Caire sous l'égide du ministère égyptien de l'Aviation civile.

Le thème retenu : « Building blocks for North Africa revival ». L'accent sera mis sur les principaux leviers pour développer les affaires et les opportunités à travers la région. Plus de 50 exposants sont également prévus.

Selon Sherif Fathi Attia, le ministre de l'Aviation civile, « les questions majeures touchant l'Afrique en général et l'Afrique du Nord en particulier sont la sûreté aérienne, l'infrastructure et la coopération régionale. »

La compagnie-hôte sera EgyptAir. Pour

Safwat Musallam, le PDG d' EgyptAir Holding Group, cet événement regroupera sous le même toit toutes ses filiales, les fournisseurs, les clients et les concurrents.

Mark Brown, directeur de Times Aerospace qui organise l'événement, a souligné la participation des représentants gouvernementaux, de l'aviation civile, des compagnies aériennes et des opérateurs de l'aviation d'affaires de l'Afrique et du Moyen-Orient.

Le sommet sera présidé par Alan Peaford, le rédacteur en chef d'*African Aerospace* et d'*Arabian Aerospace*.

Des détails sur www.aviationafrica.aero

EgyptAir is to be the event's host airline. Safwat Musallam, chairman and CEO of the EgyptAir Holding Group, said: "This gives an opportunity for all of our businesses to come together with suppliers, customers and competitors under one roof. We are very positive about the future but agree it is important that we can share ideas and get new ideas too."

The holding group includes the national carrier as well as regional carrier EgyptAir Express; EgyptAir Cargo; EgyptAir Tourism (Karnak) & Duty Free; EgyptAir Maintenance & Engineering; EgyptAir In-Flight Services; EgyptAir Medical Services and EgyptAir Supplementary Industries.

Mark Brown, chief executive of show organiser Times Aerospace, said: "We are also pleased to have MoUs from all of Egypt's airlines, including charter, cargo and low-cost carriers. These will all have top executives taking part in the event and meeting with exhibitors. We are expecting delegations from other African governments and their civil aviation authorities and, of course, other airlines, business aviation operators and from companies across the Middle East and Africa."



Alan Peaford, MBE, editor-in-chief of *African Aerospace* and *Arabian Aerospace*, will chair the two-day summit. "Cairo is the crossroads between the Middle East and North Africa and I would expect to see a lot of interest from the region – particularly given the close ties between Egypt and Saudi Arabia," he said.

"There are a lot of misconceptions about the current situation in North Africa – but there are also some hard realities. Business has been in free fall for a few years. Tourism is the key to the revival of North African fortunes and that involves some challenges in terms of security measures, in safety culture and political will.

"This cuts across our entire industry, from airline operations to maintenance and other service providers, through to airports, air navigation service providers and regulators.

"We proved at Aviation Africa in Kigali last year that the very open summit, addressing some challenging issues in an open and frank way and across the whole gamut of stakeholders, proved beneficial and I was delighted that His Excellency, the Minister of Civil Aviation, agreed that we should aim as high for the Cairo event."

The Aviation Africa Summit and Exhibition will take place in Heliopolis, close to Cairo's international airport. Further details on exhibition space, sponsorship and the programme can be found at www.aviationafrica.aero

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SAAFIRE POWER

WORDS AND PICTURES: SAM BASCH

A fiery display lit up the night sky above the Roodewal bombing range in South Africa's Limpopo province.

As the Oryx medium transport helicopter and a white-painted Rooivalk combat helicopter dispensed their flares, the South African Air Force (SAAF) concluded its air power capability demonstration to a large delegation of air chiefs and military attachés from all over Africa and beyond.

SAAF chief, Lieutenant General Fabian Msimang, specifically welcomed his Nigerian and Angolan counterparts, Air Marshal Sadique Abubakar and General Francisco Lopes Gonçalves Afonso, saying: "Some of us here today received our basic and advanced military training in your countries."

The demonstration took the form of mock battles involving live bombing of targets by six Gripen fighter jets and four Hawk light attack jet trainers. This was followed by Oryx and Agusta A109 light utility helicopters (LUH), a SA Navy Super Lynx and Rooivalk helicopters, as well as transport aircraft, giving support to simulated ground operations.

Said Msimang: "This annual exercise includes joint training, joint and autonomous force preparations, and the test and evaluation of aspects of our air power doctrine,

which is updated continuously to be relevant to our battle space."

Land vehicles participated in the demonstration for the first time, including Denel's Africa Truck. According to Brigadier General Kobus Butler, director combat systems, more ground forces could be added in future demonstrations to show interoperability capabilities with other forces.

Another first was the Super Lynx maritime helicopter firing its door-mounted cannon, showing that it can operate well with land forces.

The Rooivalk, with tail number 674, is part of the UN's Force Intervention Brigade in the eastern Democratic Republic of Congo (DRC), where it operates against rebel forces. During the demonstration it fired its 70mm rockets and chin-mounted 20mm cannon against simulated targets, just as it did in peace support operations in the DRC.

Most of the action was left to the Agusta A109 and Oryx helicopters, with water bombing, troop insertion and extraction, and cargo delivery. A Kawasaki/MBB BK 117 executed a simulated rescue of a downed pilot with the Rooivalk keeping guard.

The demonstration was also a training exercise for department of defence staff courses.



Rooivalk on guard as the BK 117 extracts ground troops.

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VINTAGE VANTAGE...

WORDS AND PICTURES: SAM BASCH

Air shows get the blood pumping – pilots, grown-up spectators and children, organisers and vendors, all love them. The annual South African Air Force (SAAF) Museum Airshow, held at historic AFB Swartkop in Pretoria in May, was no exception.

No longer an operational air base, Swartkop is home to the SAAF Museum and its array of interesting aircraft. This was where the fledgling air force, one of the oldest after Britain's Royal Air Force, received an imperial gift in 1920 of aircraft and hangars – some still in use as display halls!

The overcast sky failed to dampen the spirits as the vintage De Havilland Vampire in SAAF training colours and prancing Springbok roundels swooped overhead. Interspersed with daring displays of the SAAF's Gripen and Hawk jets, came a virtual aerial dance by pairs of Alouette light utility helicopters and a mock firebombing from a Puma medium lift helicopter.

A now retired Atlas Cheetah C fighter jet, derived from the Dassault Mirage III, corkscrewed above the crowd-line, followed by a surprise visit from a Mango Airlines Boeing 737-800 in distinctive Day-Glo orange.

All the way from Siberia, 'Little Annie' – actually a huge single-engined Antonov An-2 – flew the humanitarian flag as a platform for charitable work in South Africa.

Trailing smoke, the Silver Falcons aerobatic team in Pilatus PC-7 Mk 2 aircraft, flew in over the SAAF Memorial on Bays Hill. Celebrating their 50th anniversary this year, the Silver Falcons is one of the oldest aerobatic teams flying today.

A pair of Alouette II helicopters performing a virtual aerial dance.



A Mango Airlines Boeing 737-800 spooks small birds on its landing approach.

The Silver Falcons aerobatic team is 50 years old and still going strong.



From Tyume in Siberia 'Little Annie' is now part of the charitable Just Love Mission family doing humanitarian work.

Neil Fraser

Marcelle Nethersole *speaks to the business development director at Spectrum Aviation.*

1

■ Can you tell me a little about Spectrum Aviation?

Based in Dublin, Spectrum Aviation has more than 26 years of aviation recruitment experience. We specialise in contracting ex-patriot experienced and qualified pilots to airlines all over the world. To do this, we have established a dedicated flight crew-resourcing department that has set the industry standard in relation to how only the most suitably qualified pilots are sourced, screened, presented and contracted to client airlines.

As one example, if an airline is bringing in new aircraft, such as an A330, it has to take current pilots off-line in order to retrain. We will then supply a contract A330 pilot until the permanent one has been fully trained.

We also specialise in the ferrying and delivery and operational aircraft support to leasers, airlines and banks that require delivery of their aircraft.

2

■ How do you choose your pilots?

We tailor our approach to each individual airline need.

Using our global industry contacts, our database of suitable candidates, and utilising on-line advertising and flight crew recruitment sites, we actively seek applications from suitably qualified and experienced pilots.

To place the correct experienced pilot, we need to look at where the airline is based too, but we try and make sure we fulfil everyone's needs.

For example, for African airlines, we try to find African pilots so that they can be closer to home and better experienced for the airline.

3

■ One of your customers is RwandAir; what do you provide there?

We started discussions with them a-year-and-half ago and it took eight months to start doing business with them.

They have four types of aircraft including A330s, B737s, CRJs and Q400s, for which we supply captains and first officers.

We look after the total admin side of the pilots, from hiring and potential firing, to accommodation and payment runs. We cut paperwork by only supplying one invoice a month, which saves time for the airline. In addition, we assist with pilot accommodation – during a recent visit, I viewed five properties for pilots to consider – so we are giving a very personal service to the pilots and ensuring they get the best first-hand information.

RwandAir is an exciting airline. It has expanded its route network, so this is good news for pilots going forward with the airline; plus, it has changed its senior management team to take the business forward and add to the fleet.

4

■ How can the current pilot shortage be decreased?

As flying can be seasonal, it is sometimes hard to find good pilots for short-term contracts.

Most contracts will be 12-24 months, but some are only six-month seasonal roles.

More training from private pilot licence (PPL) upwards needs to be in place.

Also, it would be good to see more women taking up pilot training to help fill the shortage.

5

■ Why should airlines recruit with you?

Our extensive expertise and industry knowledge, our ability to fully understand our client needs, and our flexibility to be able to deliver suitable pilots is key.

We tailor each recruitment programme so that we can quickly identify suitable candidates for our client airlines and deliver the highest level of service.

We make sure we deliver a top service, and we have never lost an airline client yet. We actually find that airlines recommend us to each other, so our good efforts are spreading the airways!

6

■ What does your typical day involve?

I have been with the company for more than two years and it continues to be an exciting position in an industry for which I have a passion.

I do a lot of research on airlines, looking at which ones have new routes, or whether there are new airlines that we can reach out to.

I generally spend three weeks a month in our large Citywest Dublin office, and once a week travelling to see airlines, as well as meeting our own pilots, to keep relations strong.



“ For African airlines, we try to find African pilots so that they can be closer to home and better experienced for the airline. ”

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