



AFRICAN AEROSPACE

THE MAGAZINE FOR AEROSPACE PROFESSIONALS IN AFRICA

www.africanaerospace.aero



**FACE TO
FACE WITH
DR ELIJAH
CHINGOSHO**

DOCTOR'S DIAGNOSIS

**«LE DIAGNOSTIC
DU DOCTEUR»**

PAGE 23

AIR TRANSPORT

Rwanda's
first
female
airline pilot

PAGE 36



BUSINESS AVIATION

Amelia
follows in the
footsteps of
Earhart

PAGE 79



EVENTS

The
battle
of
Waterloof

PAGE 108



**Around the clock.
No matter what.**

24/787

Our worldwide Total Component Support TCS® for your Boeing 787. The success of an aircraft's daily operations depends on flawless component support when needed. With decades of experience spanning hundreds of aircraft, Lufthansa Technik's component team has successfully established an optimum supply process for 787 operators. Wherever you need us, we are happy to be of service.

Lufthansa Technik AG, marketing.sales@lht.dlh.de
Call us: +49-40-5070-5553



www.lufthansa-technik.com/787



Lufthansa Technik

More mobility for the world

Published by



TIMES Aerospace Limited
3-4 Rumsey House
Locks Hill, Rochford
Essex, SS4 1BB
UK
Tel: +44 (0)1702 53 0000
Fax: +44 (0)1702 53 3088

Website: www.africanaerospace.aero

Directors:
Mark Brown & Kevin Sammon

Publisher:
Mark Brown
mark.brown@africanaerospace.aero

Display Advertising:
Brian Whelan
brian.whelan@africanaerospace.aero
Nick Hutchins
nick.hutchins@africanaerospace.aero
Dave Winship-Evans
david.evans@africanaerospace.aero
Kristian Storie
kristian.storie@africanaerospace.aero

Production Coordinator:
Claire Silva
claire.silva@africanaerospace.aero

Circulation Dept:
Clare Brown
clare.brown@africanaerospace.aero

EDITORIAL

Editor-in-Chief: Alan Peaford
Editor: Ian Sheppard
Deputy Editor: Marcelle Nethersole
Air Transport Editor: Victoria Moores
Air Transport: Alan Dron,
Martin Rivers, Keith Mwanalushi
Cargo Editor: Tom Pleasant
Defence: Jon Lake, Frederic Lert, Claire Aphro
Business Aviation Editor: Liz Moscrop
Technology & Space Editor: Steve Nichols
Aircraft Interiors: Marcelle Nethersole
Airports: Keith Mwanalushi
News team: Steve Knight,
Marcella Nethersole, Chuck Grieve
Ethiopia correspondent: Kaleyesus Bekele
Southern Africa: Mark Mansfield (South Africa)
Oscar Nkala (Zimbabwe)
French Speaking Africa: Thierry Dubois,
Vincent Chappard (Mauritius), Frederic Lert
Contributors: Terry Spruce,
Jamie Hunter
Picture Editor: Ian Billinghurst
Photographers: Mark Wagner,
Tom Gordon, John Miller
Design: Chris Murray
Sub Editors: Steve Knight, Kathie Jones,
Vincent Chappard.

Editorial head office:

Aerocomm Ltd, The Tower, Guardian Avenue,
North Stifford, Essex, RM16 5US, UK.

Disclaimer

The views expressed in *AFRICAN AEROSPACE* magazine are not necessarily shared by, nor should they be taken as the views of TIMES Aerospace Limited (the publishers) or Aerocomm Ltd. Any views expressed are those of the individual contributors.
No responsibility or liability is accepted by the editor or the publishers for any loss occasioned to any person, legal or physical, acting or refraining from action as a result of any statement, fact, figure, expression of opinion or belief contained in *African Aerospace*.
The publication of advertisements does not in any way imply endorsement by the editor or the publishers of the products or services referred to therein. The entire contents of this publication are protected by copyright, full details of which are available on request. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior permission from TIMES Aerospace Limited.
Printed in the UAE by Emirates Printing Press.

Room for improvement – but also so much potential

In aviation terms, there is no other continent of the world with as much “room for improvement” as Africa. Its disparate nature and large distances distinguishes it from other regions of the world, especially places such as the US and China which benefit from being single countries; or Europe, where it is well advanced in harmonisation.

Getting the political will to allow the airline business to operate in a more seamless way sounds simple but has proven elusive, as various parts of the continent take turns in lurching in and out of chaos.

In this issue we have articles about the Ebola outbreak, the chaos caused by terrorists in Libya, Nigeria and Mali, and the lack of progress in opening up Africa’s skies.

However, there are bright spots; out in the Indian Ocean for example, Air Seychelles has bounced back after Etihad’s investment, Mayotte has had its new airport terminal opened by Francois Hollande as airlines vie to grow their business to the little island.

Airlines are still being started in various parts of Africa, despite the challenges and high costs, and all the talk is of all the opportunities and potential for intra-African services once red tape can be swept aside. Visionaries of today may be laughed at, but it could well be a case of “nothing ventured, nothing gained” this time.

Turning to the wider aerospace scene, the African Aerospace & Defence show in Pretoria was a resounding success and proved, once again,



how colourful African skies can be.

That followed straight after the African Business Aviation Association (AfBAA) meeting in Johannesburg, where business aviation leaders presented a blueprint for progress.

The next major gathering, African Air Expo in Ghana having fallen victim to Ebola contingencies, is when airlines from around the region meet for the African Airlines Association (AFRAA) annual conference in Algiers from November 9-11.

With Ethiopian being a leading African airline, and with the country having gained the international aviation safety assessment (IASA) category 1 for safety, many CEOs of African airlines will hope that their countries can follow suit.

Ian Sheppard
Editor



WE'RE ONLINE

For comprehensive coverage of all the latest news and trends in all the key sectors, download the African Aerospace Magazine App. Available from the App Store.

COVER: Dr Elijah Chingosho, secretary general of the African Airlines Association (AFRAA). Picture: Billypix.

Advertisers

ADB Airfield Solutions	110
Aerostar S.A. Romania	25
A J Walter Aviation	55
AfBAA - African Business Aviation Association	115
AFRAA AGA 2014	41
Airbus	6, 7
Astral Aviation Ltd	90
Atlantic FuelEx	35
Aviation Africa 2015	62
Bell Helicopter	87
Bestfly Flight Support	74
Boeing	26, 27
CFM International	22
Dassault Falcon	78
Embraer Commercial Jets	13
Ethiopian Airlines	5
Ethiopian Airlines MRO	43
Iberia Maintenance	2
ITP in Service Support	IBC
Jet Support Services, Inc (JSSI)	84
Jetcraft Corporation	77
JETSTREAM Aviation Academy	95
Lufthansa Technik AG	IFC
MH Aviation Services	8
MTU Aero Engines	31

NEXUS	11
PRIMUS Aero Group	49
Rockwell Collins ARINC	19
SAA Technical	107
Sabre Airline Solutions	28
Safat Aviation Complex	52
Saudi Aerospace Engineering Industries	OBC
Spectrum Aeromed	58
Super Jet International	17
Turkish Aviation Academy	102, 103
Universal Weather and Aviation	83
Vertis Aviation AG	81
Vestergaard Company	93
World Food Programme	45

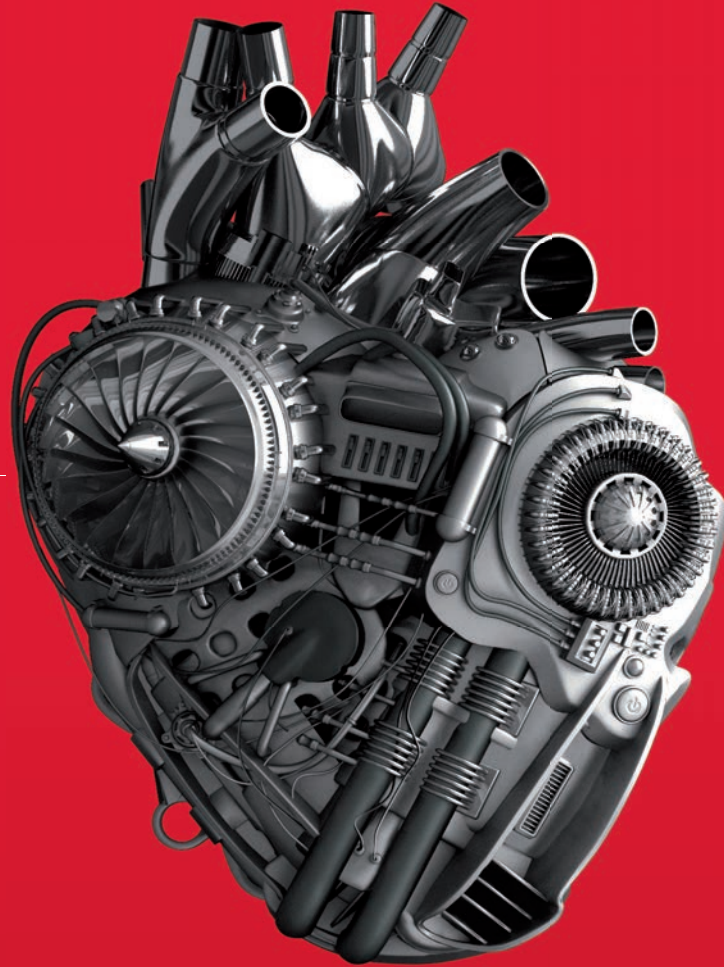


African Aerospace magazine is published in partnership with AFRAA



African Aerospace magazine is published with the support of AfBAA

OUR EXPERIENCE DRIVES YOUR EXCELLENCE.



When what matters is finely tuned, everything works. Iberia's merger with British Airways has made us stronger. Our technicians have more than 85 years of experience and are experts in their field. With our extended product range and joint resources we can offer you the high quality service that you demand.

STRONGER TOGETHER.

Iberia Maintenance. Commercial Direction.
Adolfo Suárez Madrid-Barajas Airport. La Muñeza. Edificio END.
28042 Madrid, España. Phone: + 34 91 587 48 27
maintenance@iberia.es / www.iberiamaintenance.com
British Airways Engineering: Technical Block C - Vanguard Way.
Heathrow Airport. Hounslow. TW6 2JA
bae@ba.com / web: www.ba-mro.com

**BRITISH AIRWAYS
ENGINEERING**

**IBERIA
MAINTENANCE**

Members de **IAG**

09 **business brief**

News from around the region as we look at what has been making the headlines.

AIR TRANSPORT

15 The ups and downs at Air Algerie

Air Algerie prepares to host African airlines for the AFRAA summit in Algiers.

«Air Algérie se prépare à accueillir les compagnies africaines lors du sommet de l'AFRAA à Alger.»

20 Desert express

Operating in tough conditions is the norm for Air Express Algeria as it prepares to grow.

COVER STORY

23 Coming to Algiers

African Aerospace speaks to AFRAA secretary general, Dr Alijah Chingosho, about how the continent's airlines are increasingly working together.

«L'AFRAA à Alger. Un tête à tête avec Dr Alijah Chingosho.»

29 Invasion of the Euro-LCCs

Low-cost carrier explosion in north Africa.

«Les compagnies à bas coûts émergent en Afrique du Nord.»

32 Cold Spring

The Arab Spring brought great hope but for some it all went sour. Martin Rivers reports.

36 The lady's flying

Rwanda's first female airline pilot.

«La première femme pilote d'avions commerciaux au Rwanda.»

38 Africa's dearth in Doha

Where were the African airline leaders of tomorrow when IATA held its annual meeting?

«Ou étaient les dirigeants des compagnies aériennes africaines lors de la conférence annuelle de l'IATA à Doha? »

42 The Ethiopian edict

It needed a push from the president of Ethiopia to ensure the country sorted out its skills drain.

44 Uganda goes to ground

Things haven't gone quite as expected since the summer for Air Uganda, which lost its AOC.

47 Arik's European love affair

Nigeria's Arik Air is using European expertise to dispel the poor safety image of African airlines.

«Arik Air (Nigeria) utilise l'expertise européenne pour camoufler la mauvaise image des compagnies aériennes africaines.»

50 I Sey, I Sey!

Air Seychelles is on the up, thanks to Etihad.

«Air Seychelles est désormais sur le bon chemin, merci Etihad.»

Continued
on Page 4



63 GETTING GHANA GOING AGAIN

The Ghana Air Force has a range of acquisitions in its sights but experience shows that needing equipment is one thing, getting it is another.

72 FLYING SCORPION STINGS FALCON

Textron AirLand surprised everyone when it revealed the Scorpion light fighter. If African air forces need an affordable "Swiss army knife aircraft", this is it.



75 JOINING THE JET SET

Pilatus of Switzerland had many admirers before it revealed its first jet, the PC-24. After selling out five years of production at the launch, it now has many more.

79 AMELIA'S ALL EARHART

Women still have to be stronger than men to conquer the aviation world. When Amelia Rose Earhart set off to complete her namesake's ill-fated journey of 1937, she did it for female aviators everywhere.

80 AfBAA'S PILLARS FOR CHANGE

Business aviation in Africa is misunderstood, so AfBAA is setting out to clear some of the obstacles to growth. African Aerospace's Alan Peaford chaired the association's latest event, held in Johannesburg in September.

53 Phax me if you can

Syphax believes that now it's jumped some of the initial hurdles, it can complement Tunisair.

«Syphax a franchi plusieurs étapes et compte venir en complément des activités de TunisAir.»

56 CRJ is just the job

CemAir has acquired a fleet of Bombardier CRJs, half to part out and half to lease out.

«Cemair a acheté une flotte d'avions CRJ puis s'est séparée de la moitié d'entre eux et mis en location l'autre moitié.»

59 Air Zim: up from the 'big fall'

Air Zimbabwe is going places again!

AIRPORTS

88 Mayotte's timely terminal

French president Francois Hollande opens Mayotte's new airport terminal.

«François Hollande a inauguré le nouveau terminal de l'aéroport de Mayotte.»

91 Ebola'd down...but not yet out

The Ebola virus ploughs into the West Africa population and threatens to get out of control.

«Le virus Ebola frappe durement les populations de l'Afrique de l'Ouest et peut devenir hors de contrôle.»

SAFETY AND SECURITY

94 Wide open borders

Open borders is a great aspiration but when it means there is no control, it is a worry.

96 LAM's up and down year

Losing its new Embraer regional jet to a suspected pilot suicide was a bitter blow for LAM.

«La perte de son nouvel avion régional liée au suicide présumé de son pilote a été un coup dur pour LAM Mozambique.»

98 African skies get safer

An ICAO conference in Dakar heard that efforts to improve safety in Africa are paying off.

«Les participants de la conférence de l'OACI à Dakar ont constaté que les efforts pour améliorer la sécurité en Afrique sont payants.»

100 SPECIAL REPORT: Finding the key

Opening up Africa's skies was the aim of the Yamoussoukro Declaration some years ago.

MAINTENANCE

104 Star of the east

Romania's Aerostar has become just that – it is a key supplier of African Airbus parts.

«La société roumaine Aerostar est devenue un fournisseur majeur de pièces pour Airbus.»

PEOPLE

116 All in a day...

Wynand Meyer of support company UAS.

EVENTS

108 AFRICAN AEROSPACE & DEFENCE 2014.
As *African Aerospace* witnessed, the much-anticipated AAD show brought colourful, dramatic air displays and innovative products to Waterkloof, near Pretoria, in September.



114 AVIATION AFRICA
African Aerospace's inaugural event in Dubai will bring together leaders of the continent's aviation industry to a hub that is now, thanks to Emirates, Etihad and other airlines, a key element of African air traffic growth.

WAR ON TERROR



60 WESTERN EDUCATION
The kidnapping by Boko Haram of 200 schoolgirls seemed to trigger a lacklustre response from Nigerian authorities. But the NAF is now bolstering its aerial force.

«L'enlèvement de 200 écolières par Boko Haram aurait dû déclencher une réponse vive des autorités du Nigéria. La NAF semble désormais se renforcer.»

66 MIRAGES OVER TIMBUKTU
Al Venter takes a close look at how France is supporting the battle against Islamic extremists in Mali, Chad and Niger.

«Al Venter a enquêté sur la manière dont la France lutte contre les extrémistes islamistes au Mali, au Tchad et au Niger.»

A STAR ALLIANCE MEMBER 

TOKYO



THE GATEWAY TO JAPAN

Fly three times weekly

www.ethiopianairlines.com

Ethiopian 
የኢትዮጵያ

THE NEW SPIRIT OF AFRICA

We don't know where you'll be going in five years' time, but we know how you'll get there.

Our numbers will convince you.

From 250 to over 500 seats, Airbus produces the world's most modern and comprehensive widebody product line. Three families offering unbeatable economics on everything from short regional routes to the world's longest commercial flights.

More than 100 airlines worldwide continue to benefit from the A330's unrivalled low operating costs. The A350 XWB set a new standard of comfort and efficiency in its class, with 25% lower fuel consumption compared to existing aircraft. The A380 allows airlines to increase their contribution to profit by up to 50% per flight. The A330, A350 and A380 offer unbeatable comfort levels, including more personal space with minimum 18-inch wide seats as standard in economy for full service long haul.

Our aircraft have the unique benefit of full technical and operational commonality. Reducing costs across the board. No wonder Airbus is a market leader in widebody passenger aircraft. A330 A350 A380.

Airbus Widebody Family, our numbers will convince you.



MH Aviation Services is now part of World Fuel Services, one of the largest fuel brokers in the world, leveraging an extensive worldwide fuel and handling network.

Based in Johannesburg, MH Aviation Services is your ideal partner for flight support services in Africa and the rest of the world.

- Competitive fuel prices, fuel solutions including bulk, into plane and fuel distribution.
- One bill for all services in ZAR, USD or EUR. VAT exemptions and fuel card payment solutions.
- Over-flight and landing permits, flight plans and weather briefings
- Ground handling, crew accommodation, travel, transport and catering arrangements.

Contact us to make trip planning in Africa and around the world easier and more efficient.

24/7 Flight Support: +27 82 940 5437
office: +27 11 609 0123
fax: +27 86 653 2746

flightsupport@mhaviation.co.za

www.mhaviation.co.za

MH AVIATION AIRCRAFT SERVICES
SERVICES RELEASE CARD

00000000

REG ANY A/C

CUSTOMER NAME

CUSTOMER LOCATION

EXPIRES DAY MONTH YEAR

Four killed in Nairobi cargo crash

Four people were killed when a Fokker 50 cargo plane crashed into a building near Nairobi's international airport.

The aircraft, believed to have been carrying qat – the leafy stimulant banned in much of the world but legal in parts of east Africa and the Middle East – had just left Jomo Kenyatta International Airport for Somalia.

All four crewmen were killed when the turboprop hit an unoccupied building in a commercial and residential suburb of the Kenyan capital. Two building guards were injured.

Four-star rating for Air Mauritius

Air Mauritius has been awarded four stars by professional quality rating specialist Skytrax.

Air Mauritius CEO, André Viljoen, said: "We have come a long way from where we were three years ago. We took some tough decisions and revised our business model with the assistance of Seabury APG. Once approved by the board, we all embraced the seven-step plan and have kept focusing on it."

ExecuJet expands fleet at Lanseria

ExecuJet Africa is expanding its helicopter charter fleet with the



Toucan plays guesthouse card

Toucan Aviation has constructed and opened a purpose-built guesthouse to provide its crew with dedicated, private accommodation in its home-base town of Lagos, Nigeria.

The property features 12 en-suite

bedrooms, a lounge with billiard table and games, swimming pool, covered outside sundeck, gym and, most importantly, an industrial kitchen with a professional chef.

Toucan CEO Achuzie Ezenagu said: "If the crew feels cared for then that feeling

will be returned and they will perform better in flight. Our international customers benefit from a refreshed crew, our team feels truly valued and it positions Toucan as a truly professional operator in the region."

addition of a Bell 230 helicopter in partnership with offshore helicopter operation specialist Acher Aviation.

The 10-passenger Bell 230 helicopter is fully instrument flight rules (IFR)-certified and is based at ExecuJet's facility at Lanseria International Airport.

ExecuJet's Greg Binnie, said: "There has been a growing demand for twin-engine corporate and leisure helicopter charter and, with our fleet

expansion, we can offer an even more versatile charter service. Leisure requests range from helicopter safaris to fishing and golfing trips."

Algeria in space and training link-up

The Algerian Space Agency (ASAL) and Surrey Satellite Technology Ltd (SSTL) have signed a contract to build the Alsat-1B Earth observation satellite in combination with a comprehensive training and

development programme.

Alsat-1B will be based on the SSTL-100 platform, hosting a 24 metre multispectral imager and a 12 metre panchromatic imager.

Eighteen ASAL engineers will undertake the assembly, integration and test phase of the satellite in Algeria, offering further opportunities for the transfer of skills and the development of local capabilities. Eighteen Algerian students will also study for higher degrees at the University of Surrey,

based in Guildford, UK.

Airbus A400M's tanker capability

The Airbus A400M new generation airlifter has performed successful air-to-air refuelling tests with a F/A-18 Hornet fighter.

The tanker test campaign was developed in five flights in which the A400M performed 33 dry contacts and dispensed 18.6 tonnes of fuel to an F/A-18 Hornet in 35 wet contacts.



Aerostar completes MiG-21s for Mozambique

Romania's Aerostar has completed an overhaul and upgrade programme for eight MiG-21 fighters for the Mozambique Air Force.

The contract also included the overhaul of an L-39 jet trainer and a full training programme for ground staff and pilots.

The programme began more

than a year ago and has involved six single-seat and two double-seat trainer variants.

Each overhaul took up to 120 days and, in effect, the aircraft have been re-lifed and rehabilitated. In many instances the aircraft had not flown operationally for some 20 years.

■ See Star Check – Page 105.

Air Mauritius orders six A350 XWBs

Air Mauritius is planning to expand and modernise its long-haul fleet by signing a memorandum of understanding (MoU) for four A350-900 aircraft.

The airline has also announced that it is leasing two more A350-900s.

The six A350 XWBs will be operated on European, Asian and Australian routes.

“The A350 XWB, combined with the A330, suits our entire long-range network and will be key to modernising our fleet, while significantly reducing our operational costs and environmental footprint,” said CEO André Viljoen.

Opening up cell research

A new chapter has been opened in the quest to make commercial air transport more environmentally and economically sustainable, with the agreement by Airbus and South Africa’s National Aerospace Centre to jointly fund research by Hydrogen South Africa (HySA) into the application of fuel cells on airliners.

The initial three-year

project will be undertaken at HySA Systems’ competence centre at its University of the Western Cape research facility.

Air Seychelles partners Alitalia

Air Seychelles has announced it has signed a codeshare agreement with Alitalia, Italy’s leading airline.

The new deal will allow customers from both

airlines to fly between Rome, Milan and Venice to the Seychelles via Abu Dhabi, with just one ticket for their entire journey.

Manoj Papa, Air Seychelles’ CEO, said: “Italy is Seychelles’ third largest European market after Germany and France and this agreement strengthens business and leisure travel connections between our two countries.”



Proflight expands into new head office

Proflight Zambia has moved into a new head office in Lusaka in the latest phase of its strategy to grow the aviation sector.

“Our new office provides us with a large, well-designed base from which to continue providing our friendly service, and enables us to expand our capacity as we grow,” said

Captain Philip Lemba, Proflight’s director of government and industry affairs.

“This move demonstrates Proflight Zambia’s long-term commitment to growing the aviation sector and putting Zambia on the regional and international map.”

AAR contracted for African airlift

The United States Transportation Command (USTRANSCOM) has contracted AAR to set up a dedicated operation to provide airlift facilities across four central African countries.

AAR will perform rotary-wing passenger and cargo transportation services and logistics support for allied forces.

The \$34 million operation will be based in the Central African Republic and also service the Democratic Republic of Congo, the Republic of South Sudan, and Uganda.

flight plans and schedules to increase the overall capacity utilisation of its aircraft.

The two IT solutions cover all processes for long-, medium- and short-term network planning and flight scheduling.

Arik Air to partner Emirates

Arik Air has signed a MoU with Dubai airline Emirates to develop and expand their existing commercial relationship and explore further areas of cooperation.

The two airlines currently have a one-way interline agreement, whereby Emirates passengers are connected throughout Nigeria and west Africa via Arik Air’s current domestic and regional network.

Ethiopian codeshare

Ethiopian Airlines entered into a codeshare agreement with United Airlines in August. The deal between the two Star Alliance member airlines covers the Addis Ababa–Washington DC trunk route, as well as points in Africa and the US.



Ethiopian adds ninth Dreamliner

Ethiopian Airlines has added a ninth Boeing 787 Dreamliner to its fleet.

The new aircraft will support the increased frequency of flights between London Heathrow and Addis Ababa after the airline moved to a daily schedule from London Heathrow in July.

Ethiopian Airlines Group CEO, Tewolde

Gebremariam, said: “The 787 is truly without peers in its category, both in terms of passenger comfort and operational excellence. As technology leaders on the continent of Africa, we will continue to introduce the latest technologically advanced aircraft with the aim of meeting the high expectations of our valued customers.”

NetLine boost for Kenya Airways

Kenya Airways will continue using the NetLine products NetLine/Plan and NetLine/Sched from Lufthansa Systems for its flight planning.

Both companies recently extended the existing contract for three more years.

With NetLine/Plan and NetLine/Sched, Kenya Airways can modify its



nexus

CONNECTING THE DOTS

nexus.aero

Smiths bags Morocco deal

The Morocco Civil Aviation Authority (ONDA) has contracted Smiths Detection to install its revolutionary high-speed hold baggage explosives detection system – the HI-SCAN 10080 XCT – in the new passenger terminal at Marrakech Menara Airport.

The system provides an imaging solution based on Smiths' dual-energy, dual-view X-ray technology and computed tomography (CT).

Its large tunnel opening and fast belt speed of 98 feet per minute (0.5 metres per second) enables screening of up to 1,800 bags per hour.

DHL footprint takes a giant step

DHL Express has grown its retail footprint in sub-Saharan Africa by 1,000% in less than three years.

In what could become a business school case study, the company's number of service points increased from 300 to more than 3,300, not by building its own bricks and mortar branches but by partnering with local business owners who act as DHL resellers.

Thousands of vendors – such as an electronics store in west Africa, a travel agent in east Africa and a small grocery shop in southern Africa – now allow their customers to send DHL shipments alongside their normal offerings.



A new Nigerian Air Force Beech 350i landing at Las Palmas-Gran Canaria Airport.
PICTURE: ALEJANDRO HERNÁNDEZ LEÓN.

Nigeria enjoys a Beechcraft boost

Three Beechcraft King Air 350i light transport aircraft have been delivered to the Nigerian Air Force (NAF).

The order would have probably gone unnoticed had the aircraft not passed through the bright lights of Las Palmas-Gran Canaria Airport, Spain, on their delivery flight. They will be operated by the NAF's 209

Executive Airlift Group (EAG) at Abuja-Nnamdi Azikiwe International Airport, where the hand-over ceremony was held at the unit's hangar.

Following delivery, the aircraft began undertaking training flights at Abuja before entering operational service.

■ See Page 60: Nigeria takes to the air to beat Boko threat.

Ethiopian record deal with Boeing

Ethiopian Airlines has placed an order for 20 737 MAX 8s worth more than \$2.1 billion at list prices. It includes options and purchase rights for a further 15.

The deal is the largest single Boeing order by number of aircraft from an African carrier.

"The order underlines our commitment to our 15-year strategic plan – 'Vision 2025' – in which Ethiopian will strive to become the leading airline group in Africa, carrying 18 million passengers per annum," said Ethiopian Airlines CEO Tewelde Gebremariam.

"The 737 MAX will form a key component of that strategic vision, enhancing our single-aisle fleet and keeping us at the forefront of African aviation."

Air Mauritius leads for 10th time

Air Mauritius was voted the Indian Ocean's 'leading airline 2014' at the World Travel Awards.

The airline's Amédée Maingard Lounge at Sir Seewoosagur Ramgoolam International Airport, Mauritius, was also voted the Indian Ocean's 'leading airline lounge'.

This is the 10th year Air Mauritius had been voted leading airline but it was a first for the lounge.

Tunisia to take Black Hawks

The US State Department has approved the sale of 12 Sikorsky UH-60M Black Hawk helicopters to Tunisia.

African businesses reaping US benefit

Trade relationships between the US and Africa continue to soar, according to DHL.

Charles Brewer, managing director of DHL Express sub-Saharan Africa said: "Trade lanes in Africa have increased significantly as a result of relieved trade barriers, which have had a positive impact on many local businesses. A key driver of this growth has

been the African Growth and Opportunity Act (AGOA), which has stimulated trade and investment between Africa and the United States."

DHL has seen a significant growth in trade between sub-Saharan Africa and the US in the last year.

Seeker 400 sees off another hurdle

Denel's unmanned aerial vehicle system, the Seeker 400, has successfully completed the second round of flights tests as part of its development process.

The tests, conducted at the Alkantpan range in the Northern Cape, included an evaluation of the system for range and performance with the full payload on board.

"This was the first series of flights of the Seeker 400 with the full payload," said Denel Dynamics CEO Tsepo Monaheng.

"We are delighted about the performance and confident that we will be able to start with production for clients within the next few months."

RwandAir begins new link

RwandAir will provide operations between Entebbe, Uganda and Juba in South Sudan, following the recently granted fifth freedom traffic rights from Uganda to South Sudan by the Ugandan Civil Aviation Authority.



Taking aviation to the people

South African Airways and Boeing are teaming up with the South African Department of Public Enterprises and the Department for Basic Education to develop Project SiVulindlela, an ambitious plan to take aviation education to South Africa's young people.

Project SiVulindlela is a mobile education unit based on the interior of a Boeing Next-Generation 737 aircraft, which is designed to inspire young people in remote and rural communities about careers in aviation. SiVulindlela is a Xhosa word meaning "we are opening the way."

E-JETS
E2
THE SECOND
GENERATION

The power within.

Behold the power of 2. As in E-Jets E2, the second generation of our revolutionary family of 70 to 130-seat aircraft. They offer quantum leaps in economic efficiency, pilot commonality with current E-Jets, and the appeal of a proven platform. With reservations now being accepted, it is time for a look inside, where brilliant new design has the strong power to please. The power to drive brand loyalty. And to help airlines succeed. We call it the power within.



LOVE WHAT YOU FLY



Commercial Aviation

Top award for ExecuJet

ExecuJet won the 'best private aviation operator' category at the annual Business Traveller Africa Awards in Johannesburg, South Africa, in September.

Ettore Poggi, vice president, ExecuJet Africa, said: "We are delighted to be recognised by the African travel industry for the second year running. Our charter fleet continues to grow, with the addition of a Phenom 300 and a Bell 230 helicopter this year. We are pleased to continue to be the charter company of choice in Africa."

Flydubai takes on Tanzanian market

Dubai-based hybrid carrier Flydubai has continued its assault on the African market with the announcement of new routes to Dar es Salaam, Zanzibar and Kilimanjaro in Tanzania.

Flights began in October, expanding the airline's network in Africa to 12 destinations.

Flydubai CEO Ghaith Al Ghaith said: "With the addition of these three new destinations in Tanzania we've doubled our network in north and east Africa this year, strengthening our commitment to serving previously underserved markets."

The airline recently announced the launch of



Done deal: Paul Potgieter (Aerosud), Simon Ward (Airbus) and Ismail Dockrat (Denel) at the signing of the agreement.

South African duo increase Airbus link

A three-way agreement has been signed by leading aircraft manufacturer Airbus and South African companies Denel Aerostructures and Aerosud Aviation.

The deal allows the two African manufacturers to bid for more work on Airbus' commercial airliner programmes.

Denel and Aerosud have worked with Airbus in the manufacture and supply of major components for the A400M, a turboprop military transport aircraft.

The two will no longer be competing for scarce work, but will co-operate to bid for larger contracts. Denel specialises in the production of bigger aircraft parts, while

Aerosud manufactures smaller components in larger volumes.

"This new approach is in line with the national development plan and further supports Denel's business strategy as it opens the door for us to participate on the world's most modern and successful commercial airliners, while at the same time reducing our dependency on military programmes," said Denel Aerostructures CEO Ismail Dockrat.

Airbus vice-president for international cooperation, Simon Ward, said the agreement would bolster the South African Government's strategy to develop a vibrant and strong indigenous aerospace industry.

flights to Bujumbura in Burundi, Entebbe in Uganda and Kigali in Rwanda.

Boeing forecasts continued demand

Boeing is forecasting continued strong growth in demand for commercial aviation pilots and maintenance technicians as the global fleet expands over the next 20 years.

Boeing's 2014 pilot and technician outlook suggests that, between 2014 and 2033, the world's aviation system will require 533,000 new commercial airline

pilots and 584,000 new commercial airline maintenance technicians.

Projected demand for new pilots and technicians in Africa is 17,000 pilots and 19,000 technicians.

Going Dutch in Nairobi

Dutch MRO operator, Direct Maintenance, has a strong presence in east Africa and is aiming to increase its involvement with the launch of a new training course in Kenya to meet Africa's on-going growth and development needs.

The company is authorised by both EASA and the FAA to certify the latest generation of models, including the Airbus A380, Boeing B747-8 and Boeing B787.

Apart from its home base in Amsterdam, current operations include Nairobi, Mombasa, Entebbe, Zanzibar, Dar es Salaam, Kilimanjaro and Lusaka.

"Our ambition is to continue our growth. We are creating new employment opportunities in east Africa, rewarding our staff with training and career opportunities," the company said.

Foundation records its support

The Flight Safety Foundation (FSF) has announced its strong support for the use of deployable flight data recorders or triggered flight data transmission in all transport aircraft.

"Deployable flight data recorders have been around for decades and are in use by the military and in many helicopters," said FSF president and CEO Jon Beatty.

Nigerian jet goes missing

A Nigerian Air Force (NAF) Alpha Jet went missing on September 12 in the far northeast of the country.

Director of defence information, Major General Chris Olukolade, said: "The aircraft, with two pilots on board, left Yola at about 10.45hrs on September 12 on a routine operational mission and was expected back by 12.00hrs. Since then, all efforts to establish contact with the aircraft have not yielded any positive result. Meanwhile, the search and rescue effort is on-going."

The NAF is currently conducting 'highly coordinated' air and land operations against the Boko Haram insurgents in the country, although it was not revealed whether the missing Jet was undertaking one of these.



PICTURE: ALAN WARNES.

Chinooks head for Morocco

Oregon-based Columbia Helicopters has been contracted by the US Department of Defense to rework three ex-US Army CH-47D Chinook helicopters for the Royal Moroccan Air Force (RMAF).

The \$6 million foreign military sales (FMS) contract led to the first of three Chinooks arriving at the company's new military maintenance facility at Aurora State Airport, Oregon on August 11. It was

followed by the second example on August 12 and a third a day later.

"This contract brings three large helicopters to our facility, where we'll clean, inspect and repair them," said Scott Ellis, director of business development for Columbia Helicopters.

"At the end of the process, the RMAF will get three aircraft that are completely re-conditioned and in excellent shape."

Air Algérie has had a whirlwind year, hitting the heights with a raft of new aircraft orders, followed by the tragic loss of flight AH5017 over Mali in July. But, as Algeria gears up to host the 46th African Airlines Association (AFRAA) Annual General Assembly in Algiers (November 9-11), the airline is ready to show its fighting spirit. Victoria Moores spoke to the airline.

UPS AND DUNES

«Les hauts et les bas d'Air Algérie» – Page 18

So what can AFRAA delegates expect from Algeria? It is the largest country in Africa, a title it gained in 2011 when South Sudan separated from Sudan.

But the Sahara Desert covers more than 90% of this vast country; so only 12% of the total land area is inhabited. And with that much desert, it can be really, really hot.

The official hottest temperature ever recorded in the country was 50.6°C (123.1°F), in the oasis town of In Salah.

Zohir Houaoui, head of Air Algérie's commercial department, has worked at the airline for 20 years, including a three-year stint in the UK and nearly two years as head of cargo. But his loyalty dates back to long before he joined the company. "My father was a catering manager at Air Algérie for 30 years. When I was young, I used to listen to him speaking about Air Algérie's projects."

Now Houaoui, himself, is one of the executives behind Air Algérie's five-year strategy aiming to restore the airline's competitiveness by 2017.

"I joined the company by accident. I studied maths; they were looking for someone to do a study into the airline's profitability and how to evaluate the cost of routes. I stayed because I like the airline industry."

Continued
on Page 16



CONTINUED FROM PAGE 15

Government-owned Air Algerie is doing well financially, but – like many other African airlines – it is facing stiff competition from Emirates Airline and Qatar Airways, which offer low fares and a very high-quality service. This has triggered Air Algerie to revamp its fleet, which today comprises 12 ATR 72s, five Boeing 737-600s, 17 737-800s, three 767-300s, five Airbus A330-200s and a single Lockheed C-130 freighter.

“The most important thing at the moment is that Air Algerie should return to being a market leader,” said Houaoui. With this in mind, over the last 12 months, the north African carrier has ordered three ATR 72-600s, eight 737-800s and three A330-200s for its passenger fleet, as well as two 737-700 Combis to replace its aging freighter and support passenger growth.

As the new aircraft arrive, between 2014 and 2017, the cabins of Air Algerie’s existing fleet will be upgraded to a similar standard.

“We will retrofit some of our other aircraft with the new design, connectivity and in-flight entertainment (IFE). When we bought the previous aircraft there was no need for IFE because we used them on short-haul routes, to Paris and other European countries. Now IFE is an obligation. If we want to fight these airlines [Gulf carriers], we have to offer at least the same level of service on these routes,” said Houaoui.

Competition from Gulf carriers will definitely be among the topics for discussion at the AFRAA general assembly, which is themed around ‘Winning together through innovation and collaboration’.

“The increasing presence of non-African carriers here, that are enjoying the lion’s share of the aviation market, is a sure sign that there are huge opportunities that we may be missing,” said AFRAA secretary general Dr Elijah Chingosho. “The AGA will explore how we can win back lost market share; how we can win despite the constraints, an incomplete liberalisation of the continent’s skies, inadequate infrastructure,

Continued
on Page 18

Algerie scarred by the tragic loss of 116 lives

Sadly, 2014 has been a year of tragedy for Air Algerie, scarred by a fatal accident on July 24, which claimed the lives of all 110 passengers and six crew members on board.

The aircraft, a McDonnell Douglas MD-83 on wet lease from Spanish company Swiftair, was operating flight AH5017 from Ouagadougou in Burkina Faso to Algiers when contact was lost. The disintegrated wreckage was found in the Gao region of Mali.

The aircraft, a 1996 example with the serial number MSN53190 and registration EC-LTV, took off from Ouagadougou in the early hours and was expected to land in Algiers four hours later. Weather conditions at the time were poor.

While the Republic of Mali is leading the investigation, it is being assisted by France’s Bureau d’Enquêtes et d’Analyses (BEA). The team comprises 20 air accident investigators from Algeria, Burkina Faso, France, Mali, Spain, and the USA.

□ □ □ □ □

“The aeroplane’s flight path as it was reconstituted from the flight data recorder (FDR), superimposed over a satellite image of the cloud mass present on the day of the accident, shows a normal climb and start of cruise, with some moderate route changes that are typical of a strategy to avoid any stormy developments,” said BEA in a statement.

Three working groups have been formed to investigate the crash: the aircraft group, systems group and operations group.

The first will use information from the wreckage to calculate the angle and attitude on impact. Meanwhile, the systems group is reconstructing the history of the ill-fated aircraft, based on flight data, communications and weather information. Finally, the operations team will gather ATC data – including radar, radio communication and weather

information – along with material from the Ouagadougou flight departure dossier.

The FDR and cockpit voice recorder (CVR) were both recovered from the scene and sent for analysis in France, but BEA said the CVR recording was unusable “due apparently to a recorder malfunction, with no link to the damage that resulted from the accident”.

BEA is continuing with its attempts to extract the information and is stressing the importance of all other ground and aircraft-to-aircraft communications to its inquiry.

□ □ □ □ □

In its initial reconstruction of events, BEA said the aircraft departed and climbed to flight level (FL) 310, stabilising at a cruise speed of around 280kt. However, about two minutes after the start of cruise, the speed dropped progressively to about 160kt and the aircraft started to descend.

“The aeroplane then turned left and quickly lost altitude, with large changes in pitch and bank. The rotation to the left continued until the end of the recording. The last recorded point, 1hr 47mn 15s, corresponds to an altitude of 1,600ft, a speed of about 380kt and an extremely high descent speed,” said BEA. It is hoping to piece together the end of the flight using calculations based on aircraft performance data.

Swiftair, which owned and operated the aircraft, was created in 1986 and employs more than 400 staff. Based in Madrid, it performs passenger, charter and cargo operations in Europe, the Middle East and Africa, using its fleet of more than 30 aircraft, including Metroliners, Embraer 120s, ATR 42/72s, and Boeing 727s and 737s and MD-83s.

An interim report will be published in mid-September by the president of the Mali Commission of Inquiry.

Technology, efficiency, **agility**

RIGHT NOW

The SSJ100 is the only aircraft in its class with full fly-by-wire controls that minimize pilot workload and maximize efficiency. The design excellence of the simple-to-maintain SSJ100 gives unbeatable performance plus low overall fuel consumption.

Fly the SSJ100 in your fleet: better cockpit efficiency, easier maintenance, more profit for operators.



visit: SSJ100RIGHTNOW.COM

CONTINUED FROM PAGE 16

high industry costs and a lack of adequate government support in granting traffic rights. And we will look at how non-African airlines, exposed to the same challenges as African ones, are able to overcome them and win while we cannot.”

Air Algérie is planning to overcome the threat of the Gulf carriers by using its new capacity for growth and to tap the potential for sixth freedom flights. “The problem has been that we don’t have enough aircraft to meet demand. With the purchase of 16 aircraft for delivery over the next three years, I don’t think we will buy more aircraft,” said Houaoui.

With the new aircraft now in the pipeline, Air Algérie is looking to add a swathe of African routes – including Addis Ababa in Ethiopia, Lagos in Nigeria, N’Djamena in Chad and possibly other destinations in southern Africa – as well as new European services to Vienna and Lisbon.

“We plan to open new long-haul routes, including New York JFK. At the moment we have two long-haul services, Beijing and Montreal. We are mainly looking at the USA and Asia,” said Houaoui, adding that frequencies have already been boosted on Beijing and Montreal.



In keeping with the AFRAA working together theme, alliance membership is also firmly on Air Algérie’s agenda. “This is what we are looking for,” said Houaoui. “One of the first objectives of Air Algérie is to secure an association with an alliance.”

He said 2014 would be spent preparing the airline so it meets the strict alliance criteria, with a view to joining one of the global groups by 2017.

Internally, Air Algérie is also rolling out some changes. It is likely to remain government-owned, but there is a project under way to spin off a number of its activity areas – such as cargo, catering and ground handling – into wholly owned subsidiaries.

“Air Algérie is making some changes to its organisation to become more profitable and improve performance. It needs to focus on its core passenger business and to give these services [cargo, catering and ground handling] a chance to develop, because there is a good market in Algeria. Initially, they will be subsidiaries, but they could be moved to partnerships,” said Houaoui.

One item, which is not on the agenda, is job cuts and, against the backdrop of a bright business climate, Air Algérie is expecting to swell its passenger numbers to five million by 2015 and boost its west African flights.

Just as the five-year strategic plan draws to a close, in 2017, a new terminal will be opened at Air Algérie’s Algiers home base. “I believe this is a very positive and important event, which may help us to assert our African hub strategy,” said Houaoui. In the meantime, the current plan is on track and work has already begun on the airline’s strategy for 2017 and beyond.

SOMMAIRE

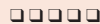
Les hauts et les bas d'Air Algérie

Air Algérie a connu une année mouvementée entre les commandes de ses nouveaux avions et le crash du vol AH5017. Alors que le pays se prépare à accueillir la 46ème assemblée générale annuelle de l'AFRAA, Air Algérie est déterminée à afficher un esprit combatif. Une enquête de Victoria Moores.



Qu’espèrent les délégués de l’association de ce pays qui est désormais le plus grand pays d’Afrique. Air Algérie se porte bien financièrement, mais comme beaucoup d’autres transporteurs africains, elle est confrontée à une forte concurrence des compagnies aériennes du Moyen-Orient. Cette situation a poussé Air Algérie à réorganiser sa flotte qui compte aujourd’hui 12 ATR 72, cinq B737-600, 17 B737-800, trois B767, cinq A330-200 et un Lockheed C-130 cargo.

Zohir Houaoui, responsable du département commercial, est aujourd’hui l’un des architectes de la stratégie de la compagnie visant à restaurer sa compétitivité sur la période 2012-2017. Elle a commandé trois ATR 72-600, huit 737-800, trois A330-200 et deux 737-700 pour le cargo. Elle compte offrir le même niveau de service sur ces routes que ses concurrents du Moyen-Orient en rénovant ses avions et se mettant à jour au niveau de l’IFE.



La concurrence venant des compagnies du Golfe sera certainement parmi les sujets de discussions à l’AGA de l’AFRAA à Alger.

« La présence croissante de transporteurs non-africains est un signe tangible qu’il existe d’énormes possibilités pour reconquérir nos parts de marché », souligne le Dr. Elijah Chingosho, secrétaire général de l’AFRAA.

Air Algérie envisage de contrecarrer cette menace en optimisant sa nouvelle capacité de croissance.

« Le problème est que nous n’avons pas suffisamment d’appareils pour répondre à la demande », explique Zohir Houaoui.

Avec la consolidation de sa flotte, Air Algérie compte ajouter des routes en Afrique à savoir Addis-Abeba, Lagos, N’Djamena et éventuellement en Afrique australe. Elle souhaite également desservir Vienne, Lisbonne et New York JFK et trouver des synergies à travers une alliance.

Air Algérie se réorganise en interne pour améliorer ses performances en particulier dans le domaine du fret, la restauration en vol et la manutention au sol. Ces activités seront désormais développées par des filiales du groupe voire sous forme de partenariat.

Les coupes d’effectif ne sont pas à l’ordre du jour et Air Algérie projette d’atteindre cinq millions de passagers jusqu’en 2015.

Un nouveau terminal sera prochainement opérationnel à Alger. « C’est un événement capital qui appuiera notre stratégie de devenir un hub en Afrique ».

CRASH DU VOL AH5017

2014 a été une année tragique pour Air Algérie avec le crash du vol AH5017 le 24 juillet. Il s’agissait d’un MD-83 loué à Swiftair. Il opérait un vol entre Ouagadougou et Alger. L’épave a été trouvée dans la région de Gao au Mali.

Le Mali, en charge de l’enquête est assisté du BEA de France. L’équipe comprend 20 enquêteurs provenant d’Algérie, du Burkina Faso, de la France, du Mali, de l’Espagne et des Etats-Unis. L’enregistreur des données de vol (FDR) et l’enregistreur phonique (CVR) ont été récupérés puis envoyés en France pour des analyses.

Un rapport intérimaire sera publié à la mi-septembre par le président de la commission d’enquête.



ARINCAviNet®

*We are committed to
simplifying communications.*

Complicated Type B messages are history.

With over 80 years of aviation communications experience, Rockwell Collins understands Type B messaging better than anyone. That's why we've developed a consultancy service to help you understand it too.

With a suite of messaging services that will fit your every need—whether you're a ground handler, a major airline or a charter organisation, Rockwell Collins' ARINC AviNet has the solution.

What's more, you don't have to invest in any new systems or restructure your current network. All you need is an internet connection—we do the rest. It's an easy, economical way to upgrade your communications—with a reliability you can count on.

Email us at emea@arinc.com to discuss your messaging cost analysis.

Pegasus One, Pegasus Place, Gatwick Road, Crawley, West Sussex, RH10 9AY, UK
+44 1293 641200 emea@arinc.com

typebessaging.com

Proud to be part of
Rockwell Collins

rockwellcollins.com

**Rockwell
Collins**

Air Express Algeria is expanding its fleet of Let L-410s to service increasing aviation demand in Algeria's oil and gas fields.

Dave Calderwood reports.

EXPRESS DELIVERY

The first operator in Africa to use the upgraded and modernised Let L-410 UVP E-20 is Air Express Algeria (AEA) – and what a baptism of fire it's been for the Czech turboprop twin.

AEA operates in the tough conditions of the north African desert, amid temperatures of up to 50°C and with “sand everywhere”, landing and taking off from rough strips near to oil and gas installations.

It's a demanding environment, which places emphasis on safety and flexibility, says AEA marketing manager Djebri Belleili.

This year, as well as taking delivery of three of the new Let L-410 aircraft, adding to its existing L-410 fleet, AEA has added Part 145 maintenance approval from the European Aviation Safety Agency (EASA) and also from the South African Civil Aviation Authority (SACAA).



“The market of oil and gas in Algeria is expanding and, as a consequence, the demand for air transport increases,” said Djebri Belleili.

“Customers request tailored and safe transport for their staff. They need to get on remote oilfields and they need to get there fast. Because of the distances and the climate, taking the road is not an option. Aviation is the most adequate means of transport for them. It meets their safety requirements and offers speed for travel between sites that are distant by

“Sometimes pilots have to land on unpaved airstrips and maintenance is a daily challenge.”
DJEBRI BELLEILI



hundreds of kilometres.

“In this context, I think that AEA meets the needs of the oil and gas companies,” continued Djebri Belleili. “We adapt to customers’ needs and, at the same time, we guarantee a high level of safety and quality. The approval of our maintenance by SACAA and EASA, in addition to that from the authorities in Algeria, is an important step for AEA and shows our dedication to safety and quality by international standards.”

AEA was founded in 2002 by Chakib Belleili, who remains the main shareholder. Belleili is a graduate engineer from Ecole Nationale d’Aviation Civile (ENAC) -Toulouse and steeped in Algeria’s aviation industry. From 1984-88 he was the director of Algeria’s Civil

Aviation Authority, going on to become general manager of Air Algérie until 1995.

AEA is based at Hassi Messaoud, which is in the east of Algeria and is considered the capital of the country’s oil and gas industry. AEA flies all over Algeria, mostly to the oilfields in the south of the country but also to the country’s main airports – Algiers, Oran and Constantine.

“Our customers are mainly joint ventures between Sonatrach, the Algerian state-owned oil and gas company, and international oil companies,” explained Djebri Belleili. They include the big names in drilling – BP, Statoil, Total, Agip – as well as some less familiar ones.

“These customers have very high safety and quality requirements and all contracts are attributed after a tender and auditing process,” added Djebri Belleili.

“We operate in a very rough environment.



AEA describes the Czech-built Let 410 turboprop (left) as "tough, robust and efficient." The operator is the first in Africa with the latest UVP variant (UVP designates 'short takeoff and landing' in Russian). For longer routes, AEA uses a fleet of Beech 1900Ds similar to the one shown here (an aircraft that once operated in Gabon).

Temperatures can go above 50°C during summer and sand is everywhere! Sometimes pilots have to land on unpaved airstrips and maintenance is a daily challenge.

"That's why AEA has developed a strong safety and quality policy. Airstrips are monitored through numerous audits. Hazards are reported to all operational structures and our staff receive special training to face the conditions. By sharing the information, we have developed a high level of collaboration with our customers and authorities to avoid any incident. We also choose the right aircraft to do the job."



And that's where the two types of aircraft operated by AEA come in. The Let L-410 UVP E-20 may not have a title that rolls off the tongue but it's a brilliant aircraft for the job. The Let 410 airframe dates back to 1969 and, with its squat stance and durable landing gear, it's a proven operator on many unpaved surfaces from rain-soaked grass to sand, snow and even slush.

The latest version has been thoroughly modernised with new GE engines, has more range, a better cabin and a semi-glass cockpit comprising of Universal, Honeywell and Garmin equipment.

The L-410 has been equipped with the latest GE H80-200 turboprop engines – a development of the earlier Walter M601 engines. GE bought the Czech engine maker in 2008 to help it compete with Pratt & Whitney in the business and corporate aviation market.

The H80 turboprop engine develops 800shp

maximum continuous power, also available for take-off, giving it significantly better hot and high performance. The H80s are equipped with steel Avia AV-725 5-blade propellers intended for the harsh desert conditions.

AEA's fleet of 15 aircraft also includes several Beechcraft 1900D 19-seaters. The 1900D has a longer range than the Let and is faster, so better for the longer routes.

"We chose those aircraft because they offer the best characteristics to face our environment and to meet our customers' demand for safety and quality," said Djebbrine.

"We knew the Let L-410 UVP E-20 would be a hit in Algeria due to its capability. It's fast, robust and efficient. It is particularly suitable for rough terrain and the climatic conditions of the Sahara Desert, and opens up new possibilities for the transport of personnel in our country.

"The Beechcraft 1900D is a long-time worldwide success," he continued. "It's like having a 'mini airliner' at your disposal. It is ideal for long flights in Algeria and our customers use it a lot for north-south flights.

"Our partnership with the South African company, Solenta, is very fruitful on this B1900D segment. Their dedication to offering a high level of maintenance allows our B1900D fleet to face the conditions of southern Algeria."

AEA's plans for the future include expanding its medevac operations – it already runs 'mercy' flights.

It also plans to grow the fleet of L-410s, further improve safety and quality, and, most importantly, develop training and hiring to bring more young Algerians into aviation.

AEA FLEET AIRCRAFT

LET L-410 UVP E-20

PERFORMANCE
 Max cruise speed:
 219ktas (405 km/h)
 Max range:
 810nm (1500km)
 Ceiling:
 14,000ft (4200metres)
 Climb rate:
 1673ft/min (8.5m/s)
 Single engine climb rate:
 354ft/min (1.8m/s)
 Take-off dist to clear 35ft:
 1,673ft (510m)
 Landing dist to clear 50ft:
 1,640ft (500m)

WEIGHTS

MTOW:
 14,550lb (6,600kg)
 Max payload:
 3,968lb (1,800kg)

DIMENSIONS

Wingspan: 65.55ft (20m)
 Overall length:
 47.23ft (14.4m)
 Overall height:
 19.12ft (5.8m)
 Cabin height:
 65.4in (1.66m)
 Cabin width:
 76.8in (1.95m)
 Max pax: 19

ENGINES

2 x GE H80-200 producing
 800shp, fitted with Avia 5-
 blade propellers

BEECHCRAFT 1900D

PERFORMANCE
 Max cruise speed:
 280kt (518km/h)
 Max range:
 1439nm (2665km)
 Ceiling: 25,000ft (7,620m)
 Climb rate:
 2615ft/min (13.3m/s)
 Single engine climb rate:
 590ft/min (3m/s)
 Take-off dist:
 3,728ft (1136m)
 Landing dist: 2,350ft
 (716m)

WEIGHTS

MTOW: 17,230lb (7,765kg)
 Useful load:
 6,440lb (2,882kg)

DIMENSIONS

Wingspan:
 57ft 9in (17.64m)
 Overall length:
 57ft 8in (17.62m)
 Overall height:
 15ft 5in (4.72m)
 Cabin height:
 5.9ft (1.80m)
 Cabin width:
 4.5ft (1.37m)
 Max pax: 19

ENGINES

2 x Pratt & Whitney
 PT6A-67D turboprops,
 each producing
 1,279shp (955 kW)



What doesn't go into our engine is as important as what does

The LEAP debris rejection system, a first in its class, is designed to prevent harmful sand and dust from reaching critical engine components. The result is a highly durable, more fuel efficient engine that literally stays newer, longer.

CFM gives you more to believe in.

Go to cfmaeroengines.com

CFM International is a 50/50 joint company between Snecma (Safran) and GE.

PERFORMANCE | EXECUTION | TECHNOLOGY

LEAP

MORE TO BELIEVE IN

FACE-TO-FACE WITH... DR ELIJAH CHINGOSHO

Victoria Moores caught up with AFRAA secretary general, Dr Elijah Chingosho, ahead of the AFRAA General Assembly.

« En tête-à-tête avec le Dr Chingosho » – Page 24

Q What concrete progress has there been since last year's AGA in terms of collaboration among African carriers and political change (e.g. on liberalisation)?

A Since the last AGA, we have recorded significant cooperative ventures among AFRAA member airlines.

Among these is a joint ground-handling project, which will be launched during the course of the year. This follows on the heels of the successful joint fuel purchase, which saw participating airlines realising savings of \$28 million in 2013.

Another cooperative venture among several member airlines, launched in August this year, is route-network coordination and harmonisation. Twelve airlines have so far confirmed participation including: Astral Aviation, Air Botswana, Air Burkina, Air Namibia, Air Zimbabwe, ECAir, Ethiopian Airlines, Kenya Airways, Precision Air, Royal Air Maroc, South African Airways and Tassili Airlines.

Airlines continue to engage in joint training programmes to ensure safety, security and operations are up to global standards for the benefit of African aviation.

There is growing realisation among African airlines that we either co-operate and succeed or die together. More and more airlines are realising that it is much wiser to cooperate for mutual survival rather than engage in reckless competition.

AFRAA and the African Civil Aviation Commission (AFCAC) have held discussions with the African Union, highlighting, among other things, the need for speed in opening up African skies.

The issue of the need for complete liberalisation of African skies has been raised at various other forums, such as the meeting of African ministers responsible for aviation, which was held in Malabo, Equatorial Guinea, in April and the meeting of ministers of transport and tourism held in Luanda, Angola, also in April. It is hoped that, following these initiatives, more African states will fully implement the Yamoussoukro Decision, resulting in greater fortunes for African aviation.

Continued
on Page 24



“There is growing realisation among African airlines that we either co-operate and succeed or die together.”

CONTINUED FROM PAGE 23

Q This year, we have seen two prime African airlines lose aircraft – LAM and Air Algerie. What lasting effects do you think this will have? Is there anything to learn from these incidents?

A The investigations into the causes of the two accidents are on-going and it would be unwise to draw any lessons until they have been concluded.

However, it is worth noting that the LAM Mozambique Airlines E-190 crash was the first fatal accident for the airline since 1970, and the deadliest for a Mozambican airline since the Tupolev Tu-134A-3 aircraft carrying Mozambican President Samora Machel crashed in 1986. The Embraer was very new, having been built and delivered in 2012.

Also, the aircraft in the Air Algerie crash had been leased from Spanish airline Swiftair for the summer season. Its crew was Spanish and the maintenance was reported to have been carried out in France.

Q The Ebola outbreak is already beginning to affect aviation. What impact is this likely to have?

A Doctors advise that the risk of infection for travellers is minimal because infection results from direct contact with sick individuals.

However, the presence of the disease in major cities with airports introduces the possibility that infected people, not yet in the acute stage of the disease, are going to get on a plane and spread the virus internationally.

This global spreading can be modelled by using human mobility network data. Although we cannot rule out the possibility of cases spreading to African airport hubs, the probability of this is quite small because the major airports in the region have limited traffic to international destinations.

On the other hand, the persistence of the outbreak, leading to a growing number of infections, is increasing the probability that we might see it spread internationally. This makes it imperative to win the battle in containing the outbreak in the region as soon as possible.

Q Looking ahead to this year's AGA, what still needs to change for African aviation to succeed?

A Governments need to ensure that safety and security are up to global standards through stringent oversight. African governments need to appreciate the huge economic and social benefits of a safe and secure African air transport industry. They can facilitate the

SOMMAIRE

En tête-à-tête avec ... Dr Elijah Chingosho

Victoria Moores a rencontré le Dr. Elie Chingosho, secrétaire général de l'AFRAA. Ils ont échangé sur les progrès effectués par les membres de l'association, les conséquences des récents accidents d'avions en Afrique, de la propagation de l'épidémie d'Ebola et des principaux défis à relever pour que l'aviation africaine puisse enfin profiter de la croissance du continent.

L'AFRAA a accompagné d'importants projets de coopération entre les compagnies membres. Un projet de partenariat dans le domaine de la manutention sera opérationnel cette année. Une autre initiative visant à mieux optimiser et coordonner les réseaux a été lancée au mois d'août. « De plus en plus de compagnies aériennes se rendent compte qu'il est plus avantageux de coopérer au lieu de s'engager dans une concurrence hasardeuse ». Enfin, l'AFRAA et l'AFCAC ont eu des discussions avec l'Union africaine sur la nécessité d'une libéralisation complète du ciel africain et de l'application totale de la Décision de Yamoussoukro, synonyme de croissance pour l'aviation africaine.



LAM et Air Algérie ont connu des accidents tragiques. Selon le Dr. Elie Chingosho, les enquêtes sur les causes des deux accidents sont en cours et il serait imprudent de tirer des leçons à ce stade.

L'épidémie d'Ebola demeure une véritable menace et affectera le transport aérien sur le continent. « Nous ne pouvons pas exclure la propagation du virus via les aéroports africains mais cette probabilité reste très faible car les principaux aéroports ont pris des mesures pour limiter le trafic à l'international. Cependant, l'épidémie gagne du terrain et il y a un risque de propagation internationale. Il est donc impératif de gagner la bataille au niveau de la région au plus vite. »

L'aviation africaine doit aussi se transformer. Pour cela, les gouvernements doivent s'assurer que la sûreté et la sécurité soient conformes aux normes de l'OACI. Ils peuvent faciliter le développement de l'industrie en réduisant les taxes et les charges et en investissant dans les infrastructures et la formation.

L'aviation africaine doit bâtir un modèle gagnant-gagnant pour être plus présente sur et reconquérir ses marchés dont profitent davantage des compagnies étrangères. Elle ne pourra gagner qu'à travers l'innovation, une approche cohérente et le partenariat pour exploiter au mieux le potentiel de la croissance économique que connaît le continent.

development of the industry by reducing high taxes, charges and fees, ideally by following ICAO stipulations in setting fees and charges related to the cost of providing services and on a consultative basis with users.

The African air transport market also needs to be fully liberalised so that airlines can be free to operate where markets exist and can easily invest in each other to create large operating entities.

Furthermore, governments need to provide timely, and competitively, world-class infrastructure at airports and air-navigation technology facilities that meet the growing needs of African aviation. The African Union needs to set up a mechanism where Africans negotiate traffic rights with third parties as a block along the same lines as the EU, so as to establish a balance of rights.

Q What is main theme of this year's AGA and what do you hope to achieve?

A The theme is 'winning together through innovation and collaboration'.

This reflects how African aviation can only succeed if the various stakeholders work in concert, on a win-win basis, while also being innovative, so as to beat the relentless competition from the mega-carriers from outside the continent.

African aviation accounts for less than 3% of global traffic. On intercontinental operations, Africa airlines account for less than 20% of the traffic to and from the continent.

Non-African carriers have a greater presence on African markets, exploiting the huge opportunities arising from our growing economies, trade within the continent and trade with countries outside Africa.

We would like to elicit views and ideas on the innovative strategies that can be crafted to ensure African aviation is a significant player in the world. What win-win innovative collaborative ventures should we embark upon so that we delight and win more, customers?

It is well acknowledged that opportunities beckon for those airlines able to effectively adapt to the growing aviation demand on the continent. The increasing presence of non-African carriers here, that are enjoying the lion's share of the aviation market, is a sure sign that there are huge opportunities that we may be missing.

The AGA will explore how we can win back lost market share; how we can win despite the constraints of an incomplete liberalisation of the continent's skies, inadequate infrastructure, high industry costs and a lack of adequate government support in granting traffic rights. And we will look at how non-African airlines, exposed to the same challenges as African ones, are able to overcome those challenges and win, while we cannot.

AEROSTAR S.A. Romania

PERFORMANCE THROUGH PROFESSIONALISM



AEROSTAR S.A.
GRUP INDUSTRIAL AERONAUTIC-BACAU-ROMANIA



Your Centre of Excellence for base and heavy maintenance



Airbus 320 family
Boeing 737 all series
BAe - 146 / Avro RJ

QUALITY | ON TIME DELIVERY | ON COST

Major structural repairs
SSW winglet installation



Approvals: EASA Part 145
RoCAA
GCAA-UAE
CAA Ghana
DCA-Bermuda
MT Kingdom of Bahrain
SAA-Ukraine
DGCA Turkey

www.aerostar.ro/mro

An aerial night view of an airplane's wing and engine, flying over a city with illuminated streets and buildings. The wing is illuminated from below, and the engine is visible in the foreground. The city lights create a grid-like pattern on the ground.

SAVING FUEL MATTERS

Saving fuel
in the heart of the market

The new 737 MAX 8 will use less fuel per seat than any airplane in its class.
Across your airline, that **saves** millions of dollars every year.

www.newairplane.com/737max/design-highlights/



THE NEW
737 MAX





Airline Customer Experience: Vital to Long-term Success

Airlines are at a crossroads where cost cutting and customer experience are at odds. How can airlines deliver a more personalized experience, which travelers have come to expect – all while managing costs?

Sabre Airline Solutions® is excited to present a special report written by The Economist Intelligence Unit, which highlights key research findings from a survey of 100 airline executives and more than 800 travelers in 18 countries.

Learn more about how data and technology can be used to improve the airline customer experience by downloading the full report at **www.ascendforairlines.com**.



Les principaux hubs de Ryanair sont maintenant à Marrakech (18 routes) et à Fès (13 routes).

Les compagnies européennes à bas coûts s'implantent en Afrique

«Road to Morocco luring European LCCs» – Page 30

De nombreuses compagnies à bas coûts ont prospéré en Europe mais elles ont également étendu leurs réseaux au nord de l'Afrique et en particulier au Maroc.

Vincent Chappard revient sur cette tendance qui dope le trafic aérien et stimule l'économie et l'emploi.

Le nord de l'Afrique est devenu une sorte de nouvel Eldorado pour les compagnies à bas coûts qui développent leurs réseaux hors d'Europe. Ces transporteurs à l'image de Ryanair, EasyJet ou Aigle Azur stimulent le trafic aérien pour les pays qui souhaitent soutenir leur secteur du tourisme. C'est le cas du Maroc qui a accueilli quelque 10 millions de visiteurs en 2012 et qui s'est fixé un objectif de 20 millions d'ici 2020 à 2022 pour devenir l'une des 20 premières destinations touristiques au monde.

Le Maroc a libéralisé son accès aérien et a connu le plus fort niveau de concurrence du transport aérien de son histoire en 2013. L'offre liée à la concurrence a atteint un pic historique à plus de 11 millions de sièges, soit une augmentation de 22 % par rapport à 2012. Cette concurrence a été dopée principalement par un retour massif des compagnies comme Ryanair, EasyJet, qui ont progressé de 25 %.

Ryanair a débuté ses opérations au Maroc en 2006 en desservant Marrakech et Fez. La compagnie

irlandaise opère aussi les aéroports de Tanger, Nador, Oujda, Rabat, Essaouira, Agadir. Elle a transporté plus de 10 millions de passagers depuis 2006 et opéré 53 routes depuis le Maroc à travers l'Europe durant cet été. Les principaux hubs de Ryanair sont maintenant à Marrakech (18 routes) et à Fès (13 routes) où Ryanair a ouvert ses deux bases en 2015. Elle a commencé ses opérations à Essaouira et Rabat. Selon Audrey Legaigneur responsable des ventes et du marketing de Ryanair en France, en Belgique et au Maroc, cette expansion a représenté un investissement de 270 millions de dollars et un trafic de 2,3 millions de passagers par an pour le Maroc ainsi que la création de 2 300 emplois. Ce n'est que la première étape d'une stratégie globale de Ryanair visant à établir un partenariat fondé sur le grand potentiel de croissance du tourisme marocain. La compagnie prévoit une croissance du trafic passagers d'environ 5% en 2015.

Le Maroc est également le seul pays en Afrique du Nord où opère EasyJet. La

Continuer à la page 30

SUITE DE LA PAGE 29

compagnie a passé la barre d'un million de passagers transportés au cours des 12 derniers mois et dispose de 22 routes vers le Maroc provenant de 8 pays différents en Europe. Elle dessert les aéroports de Casablanca, Marrakech et Agadir. EasyJet a lancé fin 2013 plusieurs routes vers le Maroc dont Marrakech-Toulouse ou encore Bristol-Marrakech. Elle a également inauguré en avril 2014 les routes Nice-Marrakech et Bordeaux-Marrakech. La prochaine est prévue en octobre 2014 avec l'inauguration de Glasgow-Marrakech.

Ryanair et EasyJet ne dévoilent pas leurs stratégies ou les futures destinations tant que les accords ne sont pas scellés.

“ Nous sommes toujours intéressés pour ouvrir de nouvelles routes et Ryanair est en contact avec plus de 100 aéroports pour discuter de nouvelles opportunités “, affirme Audrey Legaigreur.

“ EasyJet dessert principalement le Maroc et continuera à évaluer les nouvelles opportunités qui se présentent pour répondre aux besoins de nos clients et poursuivre le développement de notre stratégie “, souligne pour sa part un porte parole d'EasyJet.



Un autre opérateur fait une percée en Afrique du Nord. Il s'agit de la compagnie Aigle Azur, une filiale du groupe GoFast qui possède huit sociétés dont SR Technics France, spécialiste de la maintenance aéronautique. Deuxième compagnie aérienne française, Aigle Azur a centré son réseau sur l'Afrique (Algérie et Mali) et plus récemment l'Europe de l'Est. Elle dessert 23 destinations au départ de 10 aéroports français avec une flotte de 12 Airbus de la famille A320. Aigle Azur propose de nombreuses destinations en Afrique du Nord. Depuis Paris, elle relie l'Algérie (Alger, Annaba, Batna, Bejaia, Biskra, Constantine, Oran, Sétif et Tlemcen), le Mali (Bamako) ou encore la Tunisie (Djerba).

Le marché algérien est toutefois différent de celui du Maroc. Selon plusieurs sources, la desserte aérienne Paris-Alger reste l'une des routes la plus chère en terme de coût au kilomètre. Le billet peut varier entre 185 euros en basse saison à plus de 600 euros en haute saison. Une faible concurrence, une demande forte et de multiples taxes peuvent expliquer ce phénomène, le marché répondant au principe de l'offre et de la demande. Interrogé par African Aerospace, Aigle Azur n'a pas souhaité donner de précisions pour le moment sur sa stratégie globale car la compagnie est actuellement en réflexion sur ses axes de développement.

Le transport aérien connaît une véritable mutation en Afrique du Nord et cela pourrait prendre encore un essor surtout que la Tunisie est en cours de négociation sur un accord d'Open Sky avec l'Union européenne. Seul bémol, c'est la mise en place par le Maroc d'une nouvelle taxe sur le transport aérien. Selon l'avis de nombreux acteurs dans ce domaine, celle-ci risque de nuire à la croissance du transport aérien et de l'économie ainsi qu'au secteur touristique du pays.

SUMMARY

Road to Morocco luring European LCCs

Many low-cost airlines have flourished in Europe but they have also expanded their networks in north Africa, particularly in Morocco.

Vincent Chappard looks at this growing trend.

North Africa has become a kind of new Eldorado for low-cost carriers (LCCs) developing their networks outside Europe. Carriers like Ryanair, EasyJet or Aigle Azur, stimulate air traffic for countries wishing to support their tourism sector.

This is the case with Morocco, which welcomed some 10 million visitors in 2012 and has set a target of 20 million by 2020-2022, to become one of the world's top 20 tourist destinations.

Morocco has liberalised its air access and experienced the highest level of competition ever in 2013. This reached a historic peak of more than 11 million seats, an increase of 22% compared to 2012.

This competition was boosted mainly by a massive return of companies like Ryanair and EasyJet, which grew by 25%.

Ryanair began operations in Morocco in 2006 in Marrakech and Fez. The Irish carrier also operates to airports in Tangier, Nador, Oujda, Rabat, Essaouira and Agadir.

Its main hubs are now at Marrakech (18 routes) and Fez (13 routes).

According to Audrey Legaigreur, manager sales and marketing for Ryanair in France, Belgium and Morocco, this expansion represents an investment of \$270 million and the creation of 2,300 jobs, to transport 2.3 million passengers a year to Morocco.

Yet this is only the first step in a comprehensive strategy for Ryanair to establish a partnership based on the growth potential of Moroccan tourism. The company expects growth in passenger traffic of about 5% in 2015.

“We are always interested in opening new routes and are in contact with more than 100 airports to discuss opportunities,” said Legaigreur.

Morocco is also the only country in north Africa where EasyJet operates. The company passed the million-passenger mark in the past 12 months and has

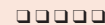
22 routes to Morocco from eight different countries in Europe. It serves airports in Casablanca, Marrakech and Agadir.

In late 2013 EasyJet launched the Marrakech-Toulouse and Marrakech-Bristol routes. Then in April 2014 it added Nice-Marrakech and Bordeaux-Marrakech. In October it is scheduled to begin Glasgow-Marrakech.

“EasyJet serves mainly Morocco and will continue to evaluate new opportunities available to meet the needs of our customers and further develop our strategy,” said a company spokesperson.

Aigle Azur is also making further inroads, having focused its network on Africa (Algeria and Mali) and more recently eastern Europe.

It serves 23 destinations from 10 French airports with a fleet of 12 Airbus A320 family aircraft.



Aigle Azur offers many destinations in north Africa. From Paris, it connects Algeria (Algiers, Annaba, Batna, Bejaia, Biskra, Constantine, Oran, Tlemcen and Setif), Mali (Bamako) or Tunisia (Djerba).

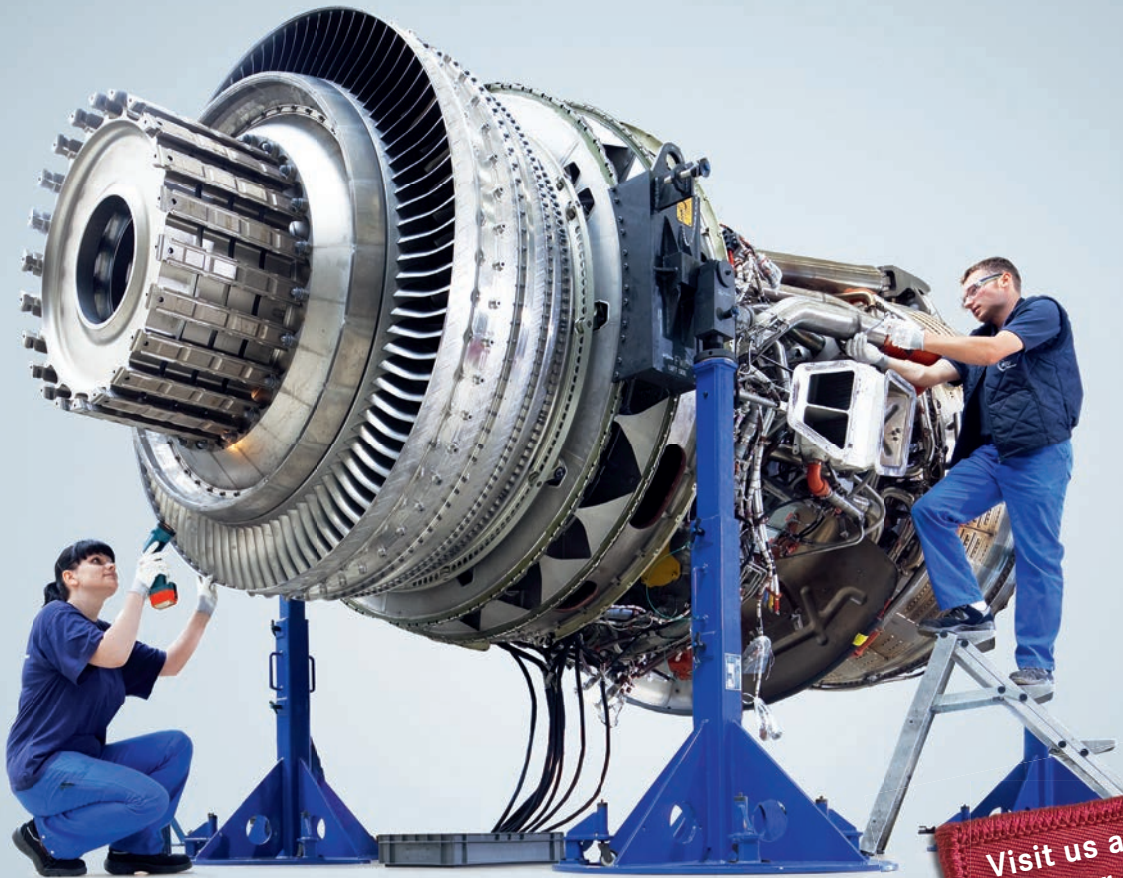
However, the Algerian market is different from that of Morocco. According to several sources, the Paris-Algiers service remains one of the most expensive routes in terms of cost-per-kilometre. Tickets can range from €185 (\$240) in low season to more than €600 (\$776) in high season. Low competition, high demand and multiple taxes explain this phenomenon.

Aigle Azur is currently in discussion on areas of development.

Air transport is in a period of real change in north Africa and it could receive a boost as Tunisia is negotiating an 'open sky' agreement with the European Union. The only downside is Morocco's new tax on air transport, which could affect growth.



Aigle Azur is one of the low-cost carriers making inroads into Africa. It serves 23 destinations.

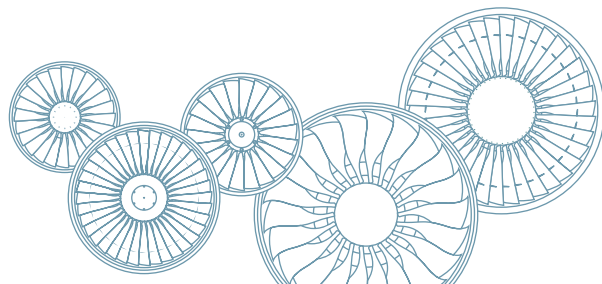


Visit us at MRO Europe
October 8 – 9, 2014
Madrid, Spain
Booth # 646

MTU – Maintaining your power

At MTU Maintenance, we believe in streamlined, cost-effective results. We are the world's largest independent engine service provider, combining the benefits of state-of-the-art technologies, decades of expertise, customized maintenance solutions and process excellence. MTU's extensive MRO portfolio now also includes the GE90 Growth. Dedicated to support you.

www.mtu.de



*The world watched in horror this summer as militias laid waste to Tripoli International Airport. With the capital and its gateway in new hands, the recovery effort got under way, as **Martin Rivers** reports.*

Tripoli terror confirms Arab Spring has gone cold

In early 2012, shortly after Libyan dictator Muammar Gaddafi was overthrown by an alliance of tribal militias, Libyan Airlines chief executive Khaled Taynaz spoke to our sister magazine *Arabian Aerospace* about the prospects for the war-weary country and its well-developed civil aviation sector.

Though careful not to downplay the challenges ahead, Taynaz painted an overwhelmingly positive picture for the future. His mood matched the broader sentiment sweeping across the Middle East and North Africa during the Arab Spring.

Just two years on, however, events on the ground seem anything but upbeat. The revolutions that engulfed the region have largely evolved into new dictatorships or entrenched civil warfare; many of the militias that united against despots are now turning their guns on each other; and the worrisome security climate has struck fear in the hearts of Western governments, which are now mobilising their own forces for potential conflict.



Painful though it may be to accept, the Arab Spring has simply not delivered on its promises. Many commentators would go further, describing it as an abject failure.

Yet the desire for self-determination, prosperity and peace lives on. There is still hope that each country's own political machinations can slowly but surely deliver progress for Arab populations. Civil aviation, with its unique ability to promote freedom of movement, international trade and diplomatic cooperation, lies at the heart of such grand aspirations.



Afriqiyah was lucky its Airbus A320s were out of station, unlike its A330s.

And that made it all the more depressing when, for six weeks this summer, Tripoli International Airport became the main battleground for control of the country. Having initially been spared the kind of violence that has crippled Benghazi in the east, Tripoli erupted into an all-out war between the government-allied Zintan militia – until then tasked with protecting the airport – and the Fajr Libya (Libya Dawn) alliance of mostly Islamist fighters hailing from Misrata.

“It came out of the blue. Nobody knew when the war is going to start,” Taynaz, who is now chairman of Libyan Airlines, told *Arabian Aerospace* shortly after the gateway and the rest of the capital fell under the control of Fajr Libya.

“When we first had the warning we made a quick response plan to evacuate the aircraft from the airport. But the time was too short. We tried, but people were evacuating from the airport so that they don’t get hit by missiles. It’s better to save lives rather than save aeroplanes.”

The assault on the airport was sustained and overwhelming. The first wave began on 13 July, when shelling knocked out the air traffic control tower and damaged at least six aircraft. Sensing what was to come, the UN evacuated its staff and a government spokesman urged “international forces” to intervene. On 20 July, another volley of missiles, mortars and anti-aircraft cannons struck terminal buildings and damaged more aircraft, including an Airbus A330-200 (5A-ONF) operated by Afriqiyah Airways, Libya’s second flag-carrier, which was completely incinerated.

The fighting raged on for another month and culminated in the eventual capture of the airport on 24 August. More than 200 people lost their lives over the course of the battle for Tripoli, with hundreds more injured. In scenes that are still hard to comprehend, some Fajr Libya fighters celebrated their victory by setting fire to yet more buildings. Others posed for photos as they clambered over aircraft wings.



“They said all the aircraft have been hit. Some of them with anti-aircraft missiles, and most of them with Kalashnikov bullets. We had one Airbus 320 in the hangar which we thought might be ok, but unfortunately it was also hit by Kalashnikov bullets.”

KHALED TAYNAZ

Footage of a burning Afriqiyah Airbus A330 seemed harrowingly reminiscent of Libya’s 2011 uprising, when the two flag-carriers each lost an A300 to fire at Tripoli Airport. Once again, the country’s aviation assets were going up in flames.

Although the intensity and indiscriminate nature of the violence surprised many, there had been warning signs that Libya’s airport infrastructure was vulnerable. On 21 March, long before the latest wave of unrest, a bomb was detonated on the runway of Tripoli Airport. The security breach was likely intended to weaken confidence in the Zintan militia rather than to claim lives, occurring at about 05:30 local time before flights got under way. It prompted Lufthansa and Austrian Airlines to permanently withdraw from the country.

□□□□□

Air traffic controllers in Tripoli had also been targeted the previous August, when they were forced at gunpoint to refuse a Qatar Airways flight permission to land. That was one of a series of security incidents aimed at the tiny Gulf state, which some militias have accused of meddling in Libya’s affairs.

Benghazi’s Benina International Airport had meanwhile been closed since the bombardment of the city in May by Khalifa Hifter, a renegade general who is leading the charge against Islamist militias in the east.

With the entire country now teetering on the brink of civil war, Libya’s aviation officials can do nothing except count the cost of the destruction and try their best to avoid further losses.

The first step is to fully assess

Continued
on Page 34

CONTINUED FROM PAGE 33

the damage at Tripoli Airport. Engineers from Libyan Airlines were granted access to the facility about a week after its seizure, Taynaz said, and at the time of writing they were close to finalising their damage report. Initial findings suggest that 13 of the 19 aircraft parked at the gateway by the two flag-carriers will not fly again – either because they are too badly damaged, or because it would be more economical to scrap them for spare parts.

“They said all the aircraft have been hit,” Taynaz confirmed. “Some of them with anti-aircraft missiles, and most of them with Kalashnikov bullets. We had one Airbus 320 in the hangar which we thought might be ok, but unfortunately it was also hit by Kalashnikov bullets.

“None of them can be flown straight away, but at least we’ve got high-speed tape for the bullet holes... If the damage is not inside the aircraft itself, we’re thinking of taking them to Djerba or to Malta for maintenance.”

Taynaz said two Libyan Airlines aircraft can be confirmed as write-offs simply by looking at the video footage. One A320 (5A-LAI) lost its auxiliary power unit, horizontal stabiliser and part of the rear fuselage after being struck by heavy artillery. One Bombardier CRJ-900 (5A-LAL) succumbed to flames and was completely incinerated.



Afriqiyah chairman Abdulhakim Fares also confirmed that every single one of his aircraft on the ground in Tripoli was damaged. Like Taynaz, he is waiting for the engineers’ final report before confirming any losses beyond 5A-ONF.

“All the aircraft have been hit by bullets, at least by one or two shots,” Fares said. “From a technical point of view you cannot determine the size of the damage until you open the aircraft from the inside... The final report will be given after we open up the aircraft and do the damage assessment.

“For Afriqiyah’s aircraft, we believe most of them can be repaired. But some of them will be a little costly... It is covered by the insurance, but they have a ceiling for the coverage. I believe the rest of our costs will be paid by the government.”

Afriqiyah had all three of its A330s at the airport at the time of the initial attack, and one source within Tripoli indicated that the surviving two units are likely to be scrapped. This was not, however, confirmed by Fares. Early media reports claimed that a total of 31 aircraft were parked at the airport on 13 July. Libyan Air Cargo, the freighter subsidiary of Libyan Airlines, lost an Ilyushin Il-76 (5A-DNG), while aircraft operated by Malta’s Medavia, Air Libya and Buraq Air may also have been damaged.



“From a technical point of view you cannot determine the size of the damage until you open the aircraft from the inside.”
ABDULHAKIM FARES

Describing the terminal as “almost completely burnt,” Taynaz speculated that commercial services are unlikely to resume within the next year. Repair efforts could be hampered by the reluctance of foreign experts to visit Tripoli, he predicted, while the destruction of a spare parts storage facility in the airport may also slow progress.

Although both flag-carriers are now caught up in the gravest of national crises, their employees are keeping Libya connected to the outside world. Emergency repatriation flights got under way almost immediately from Misrata International Airport, 200km east of the capital, and services have since resumed at Mitiga International Airport, a former US Air Force base north-east of Tripoli’s city centre. Labraq International Airport in Bayda was already being used as a replacement gateway for Benghazi’s Benina Airport.



Four Libyan Airlines jets which were positioned outside of Tripoli during the assault – three A320s and one A330 – are now being deployed on ad hoc repatriation and medical evacuation flights. The widebody and one of the narrowbodies are operating out of Mitiga, while the other two aircraft are based at Labraq.

Flights to Alexandria, Amman and Istanbul are being operated from both bases, along with Tunisian routes from Labraq. Underscoring the deep distrust between Libya’s neighbours and its new Islamist authorities, all air routes to Cairo have been closed and Tunisian flights are not being permitted from Tripoli. Ongoing skirmishes in the capital are also disrupting operations at the secondary airport.

“We are not 100% sure if the battle is going to reach Mitiga or not,” Taynaz admitted. “Twice in the past two or three weeks we diverted two aircraft [bound for Mitiga] to Djerba for the night stop, and then we resumed normal

operations. Safety measures have to be taken first.”

Afriqiyah was marginally more fortunate on the day of the initial assault, having six aircraft positioned outside of the capital. They included two Irish-registered A320s subject to a wet-lease agreement with Air Contractors – a deal which had, briefly, secured the airline access to Europe with its own metal. Those aircraft have since been spirited away to Malta for safekeeping, while the other four units are plying routes from Mitiga, Misrata and Labraq to Alexandria, Casablanca, Dubai and Istanbul.

Rebuilding the combined route networks to anything resembling their former glory will be a slow, difficult and costly task that hinges on political developments at home, so both flag-carriers are downplaying near-term expectations.

“Of course the European routes have been stopped totally for now,” Fares confirmed, referring to a handful of destinations on the continent served by Afriqiyah’s wet-lease partners. Libyan carriers have been banned from European skies since 2012 due to concerns about the country’s post-war oversight capabilities. Asked about the most recent Air Contractors flag of convenience, Fares said the deal has not been nullified and could be resumed later. “We are still working on that issue,” he insisted. “We are trying to bring back our operations to Paris, Dusseldorf and London.”

Taynaz suggested that a gradual resumption of services, if at all possible, would likely have to rely on regional partners. “At the moment I don’t think any European company would fly to Libya. The insurance companies will not allow their aircraft to fly here,” he admitted. “Maybe Tunisian [partnerships are more realistic], because they’re in touch with the Libyans more than anybody else.”

Indeed he was speaking shortly after signing a charter contract with Tunisia’s Syphax Airlines, which agreed to deploy its A330 on flights from Tripoli to Istanbul, Jeddah for the Hajj pilgrimage, and Asian repatriation services.

Just as route development will be piecemeal until the political landscape is clearer, so any talk of fleet procurement must be tempered at this stage. Two brand new Libyan Airlines A330s – originally scheduled for delivery in July and October – are “ready and waiting” in Toulouse, Taynaz said, pending final payments to Airbus. Fares added that Afriqiyah’s order for two A330s also remains active. But other near-term deliveries will probably be off-balance-sheet. “We’ll still be short of aircraft, and we’ll have to go towards leasing rather than buying,” Taynaz confirmed.



Two weeks before the battle for Tripoli, *Arabian Aerospace* met Hisham Soudi, Afriqiyah’s UK station manager, at London Gatwick Airport. He was concerned but optimistic about Libya’s prospects, arguing that the pockets of militia violence across the country “could be much worse” given the wider regional unrest. In the UK, he said, Afriqiyah’s brand was gaining favour not just with Libyans but also British business travellers.

“When British Airways stopped operating to Tripoli for security reasons [after the March runway bombing], several British nationals started travelling with us,” Soudi recalled. “And now we see some of them again every one or two months, even though BA resumed flying. They liked Afriqiyah.”

It is a testament to the resilience of the Libyan people that, despite facing repeated hardships, they seek out positives and focus on building a better future. There are many unanswered questions about the path that Libya’s rival militias are taking the country down. But nobody has any serious doubts about the competence and dedication of its civil aviation professionals.

Global Network | Maximum Savings | Customized Business Solutions



Refuel
with
Confidence



Atlantic FuelEx
www.atlanticfuel.com

24/7 help desk: +971 4 255 6626 | fueldesk@atlanticfuel.com

Pastor's daughter Esther Mbabazi hit the headlines earlier this year when she became Rwanda's first female commercial pilot, flying for the national carrier. Liz Moscrop admires her spirit.

A WING AND A PRAYER

It takes courage and determination to become an airline pilot. In the early days the study is tough, the hours are long and the pay lousy – if, indeed there is pay at all. So why do it?

Esther Mbabazi did it for the love of aviation. The history-making aviatrix was born in Burundi, where her family lived before that country's genocide in 1994, and moved to Rwanda in 1996.

She became a pilot for national carrier, RwandAir at 24. Her dream started way before then, though. In an interview with the BBC she said: "The first time I remember a flight was when I was seven on a trip to Santa Barbara in California with my parents. I got a free backpack and headset. While we were there I got to go to many places, but I was more interested in aviation and the aeroplane."

During her childhood, Esther's family would move on a regular basis due to her father's work as a pastor. She continued: "My parents eventually settled, but they did travel lots, and we went with them on missionary trips."

Her mother, Ruth, is a farmer and businesswoman, with five children. She has a pioneering history herself as the only girl in her class to study electrical engineering, and Esther explained

that it was fairly common to see her mother climb a ladder or dig around wiring to get to the bottom of any electrical problems at home. Ruth has supported Esther's vision all the way, even having her change schools in order to take the subjects that would lead her to her chosen path.

Esther's father, too, championed her dream, but sadly died in a plane crash in the Democratic Republic of Congo, when the aircraft he was aboard overshot the runway and hit a hill, killing all 22 passengers – mostly church workers. She was eight years old. She explained: "When you are young, you don't know the significance of death. Flying was already at the back of my mind, and since I was raised in a Christian home, you are not supposed to be fearful – you try to be more positive if something bad happens. It makes you prepare and plan for the good."

And prepare she did. She was so determined to see her vision through that, having finished high school, she packed her things and

bought a one-way ticket to Uganda to attend the Soroti Flight School before being sponsored to continue her training in Miami by RwandAir.

She now flies Bombardier CRJ-900 regional jets across Africa.

She added that some family

**"You
can't live life
being scared
and in fear of
anything."
ESTHER
MBABAZI**



members attributed her career choice to her father's death, but now understand that she is simply living her childhood dream. And the accident has not left her with a fear of flying. She said: "If a doctor had treated dad and he didn't make it, I wouldn't have said 'I won't go back to a doctor', so my choice was not a difficult process at all."

However, her father's death has affected the way she does her job. She explained: "It makes me safer, I don't rely on my sixth sense – I do all the checks and have to be sure before taking off."

Cautious she may be but afraid she isn't: "You can't live life being scared and in fear of anything. If something is bound to happen, you can't stop it," she added.

She has pointed out before that she is definitely under the spotlight because of her gender. As a pioneer in a male-dominated industry, she knows she has to be extra good. She told *African Voices* magazine: "No-one ever



says, ‘Oh it’s a male crew aircraft that crashed’, even though there have been many of the sort. But, if there’s a woman on board and something happens, you know, definitely, you’re going to be mentioned.”

She is sympathetic to people’s perceptions and checks with the crew if there are any really nervous passengers in the cabin.

She said: “I don’t make announcements in that situation in case it frightens them when they see they have a woman in charge.” She added that she anticipates this will change as more women pilots take to the Rwandan skies.



However, there is a limit to her understanding – and her colleagues back her all the way.

She recounted the tale of one passenger refusing to board once he realised that she was in charge. The crew told him that they would happily leave him on the ground and that he would lose his

ticket money, since his reason for not flying was simply sexist. Esther added that her generation is different from that of her mother, and men in her classes and on her crew have different attitudes towards seeing women in the front of the aircraft.

Indeed, in many ways, she is living in a fertile environment for female equality. While not without its critics, particularly on human rights issues, Rwanda is now a secure and rapidly developing country. Particular progress has been made towards gender parity.

Rwanda now has the highest percentage of women parliamentarians in the world.

Esther pointed out that her nationality is also a point of interest in terms of flying in her country.

“There are not so many male Rwandan pilots either.

“So even though I am the first female, my colleagues are the first male Rwandan pilots to be flying commercial planes. So I think it’s a big change for all of us Rwandans and something that should be celebrated.”

“I don’t make announcements in that situation in case it frightens them when they see they have a woman in charge.”

ESTHER MBABAZI

SOMMAIRE

Une prière exauce un rêve

Esther Mbabazi, fille de pasteur, a fait la une de l’actualité en début d’année en devenant la première femme pilote d’avions commerciaux au Rwanda. Liz Moscrop nous fait son portrait.

Il faut du courage et de la détermination pour devenir pilote de ligne. Au début, les études sont difficiles, il faut travailler de longues heures et les salaires sont maigres. Pourquoi donc choisir cette profession ?

Esther Mbabazi l’a fait avant tout par amour pour l’aviation. Esther est née au Burundi. Elle est arrivée au Rwanda avec sa famille en 1996.

Elle est devenue pilote pour la compagnie RwandAir à l’âge de 24 ans. Son père, qui était pasteur, est malheureusement décédé dans un accident d’avion. Esther n’avait que huit ans. Sa mère, elle aussi une pionnière, est diplômée en ingénierie électrique, agricultrice et femme d’affaires.



Portée par ses rêves et une détermination sans faille, elle acheta un billet aller-simple pour l’Ouganda pour rejoindre l’école de pilotage de Soroti. Elle fut ensuite parrainée par RwandAir pour poursuivre sa formation à Miami. Elle vole désormais sur des CRJ-900 à travers l’Afrique. La mort de son père a certainement eu un impact sur son travail.

Dans une industrie dominée par les hommes, Esther doit prouver ses capacités inlassablement. Selon elle la situation évolue et plus de femmes pilotes voleront dans le ciel rwandais. Il n’y a pas non plus tant de pilotes rwandais hommes.

Mise à part la question des droits de l’homme, le Rwanda est aujourd’hui un pays sûr et se développe rapidement. Des progrès ont été réalisés concernant la parité entre les sexes. Le pays possède aujourd’hui le pourcentage le plus élevé au monde de femmes au parlement.

In June 2014 global aviation leaders gathered in Doha, Qatar, for the International Air Transport Association (IATA) annual meeting and celebrated the 100th anniversary of commercial aviation. But while the rest of the world is doing well, African airlines are still struggling. Kaleyesus Bekele finds out why.

When will Africa stand up and be counted?

«Quand l’Afrique va-t-elle se faire entendre ? » – Page 40

Like other members of the global aviation industry, some African airline CEOs made the trip to Doha. But representation from Africa at IATA’s main forum was, in general, very poor.

“More than 20 years ago, when I started attending the IATA AGM, there were 50 airlines from Africa; today there are less than 20 present,” said Nick Fadugba, CEO of African Aviation Services and former secretary general of the African Airlines Association (AFRAA).

“No African airline CEO is represented in any of the panel discussions. This shows you that African airlines are invisible,” Fadugba added.

The African airline industry is the second fastest growing behind the Middle East. Aviation supports 6.9 million jobs and contributes 80 billion dollars towards the continent’s GDP. African economies are growing, the middle class is surging, and demand for air travel is increasing. Since road infrastructure in Africa is not well developed, air transport plays an even more important role than it otherwise would in integrating African states, though distances are often vast in any case.

Raphael Kuuchi, IATA’s vice president for Africa and former head of industry affairs with AFRAA, said that the aviation industry in Africa has grown significantly in past years but many issues remain. “Aviation enables African



“Air traffic is growing in Africa while African airlines’ market share is diminishing.”

NICK FADUGBA

countries to integrate and allows people and goods to move in the continent and to other continents. The aviation industry is also creating jobs and generally making a very positive contribution in the economic development of the continent. But we still need to do a lot to reach where we should be,” Kuuchi said.

African carriers like Ethiopian Airlines, Kenya Airways, South African Airways and EgyptAir are growing fast and competing with global airlines. However, the overall African airline industry is not in good shape, believes Kuuchi.

Poor airport infrastructure, market restrictions, high airport fees, exorbitant taxes levied on airfares and aviation fuel, rising fuel costs, stiff competition from mega carriers from other continents – these are but a few of the major challenges that African carriers face today.

Many African airlines have been liquidated in the past few years. For example: Air Afrique, Nigeria Airways, Ghana International Airlines, Ghana Airways, East African Airlines and Uganda Airlines. A number of African countries (such as Zambia) have lost their national carriers and become dependent on other airlines or on proxy airlines to get connected to the rest of the world by air.

Dr Elijah Chingosho, secretary general of AFRAA, said: “In the past few decades we have seen many African airlines going out of business



“The middle class is growing. These people need to travel. Let us facilitate the process of travelling. Let us promote air travel within Africa. Remove unnecessary barriers like visa requirements.”

DR ELIJAH CHINGOSHO

[and] we have seen the proportion of African airlines’ intercontinental market shares shrinking.”

Currently, African airlines carry only 20% of the passenger traffic to and from Africa. “We have also seen the number of African airlines that handle intercontinental operations dwindle from 26 in the 1990s to only a dozen now,” he added.

According to Chingosho, African carriers like Zambia Airlines used to fly to Europe, Asia, and USA. “We lost many big airlines like Ghana Airlines, Nigeria Airways and Air Afrique, which had wide networks.”

Fadugba shares Chingosho’s concern. “Air traffic is growing in Africa while African airlines’ market share is diminishing,” he said.

According to Fadugba: “African airlines are undercapitalised. They do not have enough money to succeed. Many of them have five or six aircraft. They are competing with airlines that operate 100 or 200 aircraft. So if you are small and weak you are fighting for survival.”

To make matters worse, the continent’s skies are generally closed to African carriers. Bilateral agreements prohibit African airlines from serving some markets. Ethiopian Airlines CEO, Tewolde Gabremariam, said that securing a traffic right in Africa is a daunting task. “When we want to open new routes or increase frequencies we have to fight hard, even if we are an African airline. They deny traffic rights for us and

Continued
on Page 40

CONTINUED FROM PAGE 39

Non-African airlines are exploiting this opportunity and expanding their routes in the continent. Middle East carriers, in particular, are strengthening their presence in the market. Turkish Airlines has more destinations in Africa than many African countries do.

Chingosho commented: "Some African governments favour these airlines at the expense of others. There are some airports where Gulf carriers are allowed to fly daily while some African carriers are allowed in two or three times a week. We do not understand this. Why do you favour airlines from other parts of the world?"

"There is no continent that favours carriers from other continents – it is only in Africa. So we are saying let us create a level playing field where there is equal treatment for all airlines. Africa is the slowest in terms of liberalising air transport. We should open up our continent for African airlines."

Fadugba warns that time is running out for African airlines. "They need to wake up and act. Unless they act now, after five years there will be only five African airlines operating. All the others will go bankrupt or serve niche markets with four or five aircraft."



Gebremariam agrees: "Unless we [African airlines] consolidate and cooperate, giant Middle East carriers will eat us for lunch."

High industry cost is another area of concern. "The airline industry operational cost in Africa is way up from the world average," said Chingosho. "If you look at passenger charges and taxes you find some stations where the charges are up to \$100 and most stations in Africa charge at least \$40. If you look at fuel you would find that fuel charges in Africa are at least 21% more expensive than the world average. In some stations the price of fuel is twice world average."

AFRAA, in collaboration with IATA, is lobbying governments to realise the enormous benefits of aviation and reduce exorbitant charges, airport fees, tax and fuel charges. "If governments reduce these charges, African airlines can be competitive," said Chingosho. "Most of the competition is coming from the Middle East and even Europe, where fuel and airport charges are much lower than Africa. So we are saying let us have a level playing field and reasonable charges."

"Governments should avoid this mind-set that claims that air transport is for the rich. In Africa we have poor road transport infrastructure and air transport should be a means of mass transport. This is the only way that we can promote air transport in Africa. We can promote tourism and trade."

According to Chingosho, African stakeholders need to realise that economies on the continent are growing above the world average rate. "The middle class is growing. These people need to travel. Let us facilitate the process of traveling."

SOMMAIRE

Quand l'Afrique va-t-elle se faire entendre ?

Les acteurs de l'industrie aéronautique étaient réunis à Doha en juin dernier à l'occasion de l'AGM de l'IATA. Ils en ont profité pour célébrer le centenaire de l'aviation commerciale. Alors que le secteur du transport aérien jouit d'une bonne santé, les compagnies aériennes africaines, elles, se battent encore. Une enquête de Kaleyesus Bekele.

Même si quelques PDG de compagnies aériennes africaines avaient fait le déplacement à Doha, la participation africaine était relativement faible. Aucun représentant d'Afrique n'a participé aux tables rondes.

L'industrie du transport aérien africain enregistre la deuxième plus forte croissance derrière le Moyen-Orient.

Raphaël Kuuchi, directeur de l'Afrique pour l'IATA, a déclaré que l'industrie de l'aviation en Afrique est certes en croissance mais que de nombreux problèmes subsistent : l'insuffisance des infrastructures aéroportuaires, les restrictions du marché, les taxes, le coût du carburant et la rude concurrence des transporteurs d'autres continents. De nombreux transporteurs africains ont d'ailleurs mis la clé sous la porte.

Selon le Dr. Elie Chingosho, secrétaire général de l'AFRAA, les parts de marché des compagnies aériennes africaines sont en diminution.

Pour Nick Fadugba, directeur général d'African Aviation Services, les compagnies aériennes africaines sont sous-capitalisées, n'ont pour la plupart que cinq à six appareils et se battent pour survivre. Elles sont en concurrence avec des compagnies aériennes qui opèrent 100 ou 200 avions.

Le ciel africain est généralement fermé aux transporteurs africains et il existe peu d'accords bilatéraux. L'Afrique est le plus lent en matière de libéralisation du transport aérien.

Il est grand temps d'agir selon Nick Fadugba. Sinon il n'y aura que cinq compagnies aériennes africaines en opération sur le continent d'ici quelques années alors que les autres vont faire faillite ou servir des marchés de niche avec quatre ou cinq avions dans leurs flottes.

Let us promote air travel within Africa. Remove unnecessary barriers like visa requirements. Allow passengers to obtain visas at airports."

Poor infrastructure is another hurdle for air transport development. Airport infrastructure is way below the world standard. International airlines are unable to open routes to some destinations because of poor airport infrastructure.

"You see that some African airlines are growing very rapidly but the infrastructure is not keeping pace with the airlines' growth," said Chingosho. "Governments should realise that once the infrastructure is good you could grow the airlines. We also lag behind adopting ICT infrastructure at airports. Airports need to be open 24 hours a day, not just for some hours."

The brain drain is another major challenge. Aviation professionals are leaving the continent in large numbers in search of better pay.

"We know that there is a brain drain problem. African aviation professionals are being poached by airlines outside of Africa," said Chingosho. However, he added, the brain drain should not be seen only in the negative sense.

"Aviation professionals who leave the continent send a huge sum of money back home. So this could generate a large amount of foreign currency for the continent. So why don't we train more aviation professionals than we need? Even if some are poached we will have still enough to support our growth. Let us find partners who can work with us in enhancing our training capacity. Let us train more professionals for export," he concluded.



Kuuchi strongly advocates the need for co-operation. "African carriers have to work closer. That is the starting point. Many African airlines do not have codeshare agreements or any relationships. Very few of them co-operate. They need to work together and take advantage of the existing opportunities in the continent."

He strongly advises carriers to expand their routes to African markets that are currently underserved. According to him, foreign carriers are taking advantage of the existing market that African carriers are not serving.

He also urges governments to open the skies and the market. "While we encourage African airlines to take up their right position in the continent, we also expect that they should be able to spread their wings effectively."

Finally, Kuuchi believes that the issues of safety, security, and infrastructure development in Africa, should be addressed by airlines, states and the African Civil Aviation Commission (AFCAC).

"The cost of operation in Africa should also come down. Once these issues are addressed we will have more people travelling by air and the air transport business will grow," he concluded.

الخطوط الجوية الجزائرية
AIR ALGERIE



AFRAA

NOVEMBER 9 -11- ALGIERS-2014

AFRICA'S BIGGEST AIRLINE CEO'S CONFERENCE

**The African Airlines Association (AFRAA)
46th Annual General Assembly (AGA)**

and African Air Transport Summit will take place in Algiers, Algeria
from 9-11 November 2014 .The AGA will be hosted by AIR ALGERIE

Participation is by invitation only

For sponsorship and exhibition opportunities, please contact
the AFRAA Secretariat for details.



AFRAA

African Airlines Association (AFRAA) | 2nd Floor, AFRAA Building | Off Red Cross Road
South C , off Mombasa Road, Nairobi | P.O Box 20116 - 00200 , Nairobi , Kenya
Tel : +254 202 320 144/8 , GSM: +254 722 209 708 / 735 337 669
Email : afraa@afraa.org - Website : www.afraa.org

ECAA goes right to the top to plug the brain drain

The Ethiopian Civil Aviation Authority (ECAA) has been suffering from a dearth of aviation experts and the brain drain over many years but its director general went right to the top – Prime Minister Hailemariam Desalegn – to get help in turning things around.

Kaleyesus Bekele
reports from Addis Ababa.

Colonel Wossenyeleh Hunegnaw: “We had only a couple of certified inspectors working on aircraft airworthiness.”

Like all other governmental organisations in Ethiopia, the ECAA used to offer minimal remuneration, which meant that the authority was faced with a limited number of air traffic controllers, aircraft inspectors and auditors. Many aviation professionals left the organization in search of better pay.

When Colonel Wossenyeleh Hunegnaw joined ECAA in 2009 as director general, the authority was in a dire situation.

The ECAA inspects 18 airports in Ethiopia as well as Ethiopian Airlines, dozens of local private airlines, and it supervises at least 13 international airlines that operate scheduled flight service to Addis Ababa.

It also provides air navigation service for local and international airlines that fly over Ethiopia.

“We had only a couple of certified inspectors working on aircraft airworthiness,” said Hunegnaw. “We were unable to hire pilots to inspect aircraft because of their lofty salary and the limited budget we had.

“The first thing I did was to train a large number of aviation professionals. You cannot go out and find readily available ATCs, pilots, technicians, or aeronautical engineers in the Ethiopian labour market.”



Hunegnaw’s argument convinced the Ethiopian Government, which made a substantial investment on ECAA’s training centre. The management expanded the centre and procured ATC simulators and other training facilities, also increasing its intake of trainees.

Hunegnaw explained the challenge the authority was facing in recruiting skilled labour. An inspector pilot demands a monthly salary of 70,000 birr (\$3,500), according to Hunegnaw. “Skilled labour (aviation professional) is not readily available in the market and the training cost is cumbersome. We spend up to 300,000 birr (\$15,000) to train one radar controller.”

The authority recently spent 14 million birr (\$700,000) in training 24 radar controllers. Foreign instructors,

certified by the International Civil Aviation Authority (ICAO) offered the training. The authority is planning to further expand the aviation training school and to make it certified by ICAO.

The authority is anticipating training aviation professionals in large numbers and finding employment opportunity for them abroad. “We may be able to export aviation professionals within two years. We will also start training foreign aviation professionals,” Hunegnaw said.

To tackle the brain drain problem, Hunegnaw went right to the top, explaining the problem to Ethiopian Prime Minister, Hailemariam Desalegn, who allowed him to hire pilots on an exceptional salary scale.

ECAA also made salary adjustments to other staff.

Accordingly, the authority hired a number of inspector pilots and, after making the salary adjustments, the authority managed to reduce the exodus of professionals.

The ECAA is also investing in other ways. The authority used manual procedures to provide air navigation services but has now installed flight instruments at the airports in Addis Ababa and regional towns. Recently, it procured and installed modern radar and automatic dependence surveillance-broadcast (ADS-B) equipment.

These state-of-the-art instruments enable the ATCs to swiftly handle aircraft approaching for landing or ready to take-off.



The authority spent \$9.9 million on the new radar installed at the Addis Ababa Bole International Airport.

ATCs used to keep an aircraft approaching Addis Ababa circling for more than 35 minutes. The aircraft used to burn a large amount of fuel while waiting their turn to land. After the acquisition of the new radar, they managed to reduce the duration to between five and seven minutes.

Nearly 40 ATCs have been trained on the new radar and ADSB, with more on the way.

Hunegnaw said: “We are working hard to ensure safe and reliable air transport in Ethiopia. We are getting support from ICAO.” He added that the ECAA was audited by ICAO in 2006 and scored 67%, way above the world average.

“We have been rectifying the findings of ICAO and trying to be fully compliant with its regulations,” he said. “ICAO will audit us again in 2015 and we are working hard to meet the requirements.”

Last June, ICAO secretary general Raymond Benjamin visited the ECAA and pledged to provide the authority’s training centre with the required technical assistance to join ICAO’s ‘trainer plus’ programme. At the end of his two-day visit in Addis Ababa, Benjamin told reporters that he was satisfied with the progress the ECAA was making.

The US Federal Aviation Authority (FAA) recently audited the ECAA and granted it category 1 status.

“We are happy to maintain our category 1 status (originally obtained in 1998 when Ethiopian Airlines launched flights to the US),” said Hunegnaw. “We worked day and night to meet the stringent requirements of the FAA.”





→ Airframe maintenance on:

- Boeing 787
- Boeing 777
- Boeing 757/767
- Boeing 737NG
- Boeing 737 Classics
- Bombardier DHC-8/Q100
- Q200/Q300/Q400
- Fokker-50

→ Engine Maintenance

- PW4000 Modular maintenance
- PW2000 Modular maintenance
- CFM56-3/7 Overhaul
- GTCP 331 Overhaul

→ Component maintenance

- Extensive number of components fitted on the above Airframes and Engines.

For more information please contact : Director MRO Sales and Marketing , Ethiopian Airlines
email: AmareG@ethiopianairlines.com Tel: 00251 116 651192 Fax: 00251 116 651200
www.ethiopianairlines.com

COMMITTED TO DELIVERING A HIGH QUALITY SERVICE
AT A VERY COMPETITIVE PRICE AND
SHORT TURNAROUND TIME

Ethiopian የኢትዮጵያ



Maintenance Repair & Overhaul

Almost all of Uganda's airlines were grounded in June after shortcomings in the country's regulatory oversight came to light. Martin Rivers assesses the outlook for would-be flag-carrier Air Uganda.

Grounded Uganda's seven-year hitch

Air Uganda's ascension to IATA was supposed to be a watershed moment for the privately-owned carrier, heralding a new era of industry cooperation and paving the way for significant expansion of its turboprop fleet.

The seven-year-old airline joined the global club on June 2 2014, having made significant progress in negotiations with the Uganda Government over the acquisition of a strategic stake.

"Certainly the Government does want to partner with us to create a strong airline for Uganda," chief executive Cornwell Muleya said shortly after receiving his IATA certificate. "There is willingness on both sides to ensure that we have a strong home-based airline out of Uganda – one which would facilitate the growth of the economy of Uganda. As the market grows, everybody wins."



But the upbeat mood was to be short-lived. Just a fortnight later, Uganda's Civil Aviation Authority (CAA) said it was withdrawing the air operator's certificates (AOCs) of Air Uganda and two local freight carriers, Transafrik and Uganda Air Cargo.

Despite initially describing it as a temporary grounding, Air Uganda quickly threw in the towel and confirmed that all flights were indefinitely suspended. The carrier's three Bombardier CRJ200s were being returned to their lessors, Muleya announced in a statement, and there was no imminent prospect of a re-launch due to the "massive financial losses" and "reputational damage" caused by the suspension.

Almost immediately, the blame game got under



"Certainly the Government does want to partner with us to create a strong airline for Uganda."

CORNWELL MULEYA

way. Uganda's CAA published statements suggesting that inspectors from ICAO, the UN's aviation body, had uncovered "safety deficiencies" at the grounded airlines during a routine audit of the authority.

The CAA alleged that recurrent safety shortcoming at Air Uganda had been "reported on a regular basis" in the months preceding the audit. Despite warning the airline about the pending review, it said ICAO discovered evidence of "manuals and procedures [being] irregularly altered" – an apparent reference to hand-written notes or photocopies being used on official documentation by the airline's staff.



"The airline failed to demonstrate to the satisfaction of the auditors that it was operating in compliance with the established standards and terms of approval, as had been demonstrated by the authority," it alleged. "[So the] CAA had no choice but to withdraw the airline's AOC."

Muleya, predictably, had a different interpretation of events. He argued that ICAO raised concerns not about the airlines, but rather about the CAA's inability to effectively supervise local operators. Facing the prospect of a potential five-year blacklisting by the international body, he suggested, the CAA took the extraordinary step of retrospectively withdrawing all the AOCs it had issued.

"The Ugandan CAA regrettably opted on June 17 to withdraw – without consulting the airlines affected – AOCs for all international commercial air operators registered in the country," Muleya complained. "Each carrier was requested to submit a fresh application for an AOC."



Air Uganda was operating three Bombardier CRJ200s and an MD-87 (seen here in the background at Entebbe).

The chief executive's narrative appears to have been validated by *The Observer* newspaper in Kampala, which later discovered that several other Ugandan airlines also had their AOCs withdrawn – Ndege Aviation, Kampala Aeroclub and Flight Training Centre (KAFTC), Air Surf and Asante Aviation – leaving the country with just two tiny operators: Aerolink Uganda and Eagle Air. Ndege Aviation has since gone public, alleging malpractice by the CAA.

ICAO did not release the findings of its audit, and Muleya declined to elaborate on his accusations when questioned in August. He also would not confirm whether Air Uganda has initiated a recertification process.

But, whatever the airline's prospects of returning to the skies, its fledgling route network is now being redistributed among foreign operators. RwandAir and Ethiopian Airlines have been granted fifth-freedom rights to fly from Entebbe to Juba, South Sudan and Nairobi, Kenya respectively, replacing Air Uganda's two most frequently operated routes.

Prior to its suspension, the de facto flag-carrier had also served Mombasa in Kenya, Kilimanjaro

and Dar es Salaam in Tanzania, Bujumbura in Burundi, and Mogadishu in Somalia.

Muleya was planning to add several new destinations over the coming five years. "We are looking at three points in the Democratic Republic of Congo: Kinshasa, Lubumbashi and Goma when the airport runway is completed," he confirmed in June.

"We believe in future we can also connect with southern African countries, not only South Africa, but Zambia and Zimbabwe. We are looking at connecting with Sudan also. And we have a large population of Eritreans that need connections."



Frequencies on all existing routes were slated to become twice daily, he added, with management working towards an order for "one or two" additional 50-90 seater regional jets.

Any such fleet expansion would have been agreed at the group level with shareholder the Aga Khan Fund for Economic Development, which also holds equity in Air Burkina, Air Mali and Italy's Meridiana.

"The intention is that we will develop the networks together as a group. So we will link Africa

with Europe, and other regions together with group partners," Muleya explained. "Meridiana already has A320s and 737s, so if we needed that kind of capacity we could always draw from the group. It's available. But for now we are developing the regional business, and there is no focus to get that type of aircraft."

Sadly all these near-term and long-term plans have now been put on ice, with the chief executive unwilling to assert whether Air Uganda has a realistic prospect of restoring its AOC and resuming operations.

If there is a silver lining, however, it is surely the Ugandan Government's avowed pride in its would-be flag-carrier, which injected a modest but respectable \$15 million directly into the local economy last year. Air Uganda was founded in 2007 at the instigation of the government, and the proposed "equity partnership" Muleya promised would have cemented its status as a national asset for years to come.

Whether or not that strategic relationship can be salvaged from the embarrassing debacle at the CAA remains to be seen. In the meantime, the only carriers benefitting from air traffic in and out of Uganda will be foreign operators.



“You can tell there is more money in the country – there are better cars on the roads, there are more restaurants. There is a rapidly rising middle-class and they want to travel.”

CONOR PRENDERGAST

In a world where the smallest of nations boasts a national airline as part of its economic infrastructure (even the tiny Pacific island group of Nauru, population 9500, has an airline to carry its name abroad) it is remarkable that a regional power such as Nigeria (population 168 million) does not have its own flag-carrier.

Since the demise of Nigeria Airways in 2003, the government has been unable to establish a replacement. In the absence of a national champion, the baton has effectively been passed to the west African country’s largest surviving airline, Arik Air (named after founder, Nigerian businessman Sir Arumemi-Ikhide).

“We’re the de facto national carrier,” said chief operating officer Conor Prendergast during an interview at the International Air Transport Association (IATA) annual meeting in Qatar. “We’re the only Nigerian carrier with this size of fleet and a long-haul capability.”



The airline would like to have the Government’s official endorsement as national carrier, said Prendergast, but in its absence it will continue its plans for expansion.

That expansion will cover all three areas of the airline’s activity – short-, medium- and long-haul.

Currently, the domestic and regional fleet consists of two Bombardier Q400 turboprops and four of the same company’s CRJ-900 regional jets. The medium-haul fleet is composed of nine Boeing 737-700s and four -800s, while long-haul services are handled by two Airbus A330-300s leased from Pembroke (with two more on order) and two ultra-long range A340-500s.

“The fleet’s complexity doesn’t help on the cost side, but it does help us to manage the geography of the country,” said Prendergast.

Some of the airports into which Arik operates



ARIK PICKS UP THE BATON

«Arik Air en pleine expansion au Nigéria» – Page 48

Arik Air sees a steadily growing market in Nigeria and the surrounding region. But, reports Alan Dron, to tap it the carrier needs expansion on the ground as well as in the air.

are old military landing strips, where the Q400's take-off performance is welcome. The CRJs are used on longer domestic routes and services to destinations just outside the country's borders, particularly on thinner routes.

The 737s handle mid-haul routes across to the west coast of Africa and down to Rwanda. "The workhorse is really the 737," said Prendergast. "The -800, in particular, is a very flexible aircraft. A couple of years ago we used them on the Johannesburg route and when we had the Abuja-London route, we used them on that, a flight of six-and-a-half hours."

Currently, the Lagos-London Heathrow route is served daily by the A350s. The arrival of new Boeing 777-300s in 2017 will see them operating principally into London and New York.

Arik sees a lot of future growth on the London run, which was previously served by four airlines. Even indirect flights to the UK capital attract considerable traffic, said Prendergast.

A major fleet renewal and expansion programme is planned for the next few years. Over the next 18 months, three further CRJs – the larger -1000 variant – will arrive, together with a further four Q400s, giving a fleet of six.



"I think we've warmed very much to the Q400. It's a very economical aircraft – fast, efficient and can go into lots of airports. A turboprop might not be everybody's favourite, but it's a very, very sound aircraft," said Prendergast.

The Q400 has suffered badly in sales battles with the Franco-Italian ATR is recent years, but the longer sectors prevalent in Africa allow the Canadian aircraft's higher cruising speed to become a virtue.

The Q400's range also allows it to undertake some international services. Lagos is relatively close to foreign capitals such as Cotonou (Benin)

and Douala (Cameroon) and the turboprop is popular on such routes.

Within Nigeria, services on the 'golden triangle' of Lagos, Abuja and Port Harcourt are sufficiently dense to require a larger aircraft, however.

Other orders include a further four 737-800s that are due to arrive from 2016-17, although these may be switched up to the larger -900. The existing A340-500s will probably be replaced by the new 777-300s, a move about which Prendergast has mixed feelings: "The A340 is a beautiful aircraft, but fuel [consumption] is an issue."

The final major addition to the fleet will be eight Boeing 787-9s, which are due to arrive around 2018-19. These will be used to expand the long-haul route network, although destinations have not yet been decided upon. Given the rapid pace of global events, expecting to know

Continued
on Page 48



Having originally leased this Bombardier Dash-8 Q300, Arik Air last year ordered four Bombardier Q400s. So far, two have entered service.

CONTINUED FROM PAGE 47

which destinations will be best served by the new twin-aisles five years out is asking too much, explained Prendergast.

In the immediate future, Arik was due to start a five-times weekly Lagos-Abuja-Dubai service with the A340s as *African Aerospace* was going to press. This was due to be followed later this year with a Lagos-Abidjan service using the CRJ900s and a Lagos-Libreville service with the 737s. Abuja-Jeddah is another planned 737 route, which is likely to start at three a week and build up, to serve the religious travel market.

One new type unlikely to join the fleet is Bombardier's CSeries. Reports over the past year that the company is seriously considering 10-15 of the new-generation jet as a replacement for the CRJs and even the 737-700s are wide of the mark.

With Africa still lagging behind other world regions in safety, Arik decided from the outset to instil confidence in customers by going for top-grade maintenance providers. "Line maintenance for the CRJs and Boeings is done by Lufthansa Technik, with a very big team in Lagos. Wide-body maintenance is also handled there by Iberia, while the Q400s are done by SAMCO of the Netherlands," explained Prendergast.

□ □ □ □ □

"We made a very distinct strategic decision [to use reputable maintainers] at the outset, to counter any claim that a new Nigerian airline wouldn't be safe. It's certainly not the cheapest maintenance solution but our chairman and board are very forthright in their views on that. That's what they want to have, certainly for the foreseeable future. And the aircrafts' financiers are happy with that because they know the aircraft are being well looked-after."

The African market remains "an enormously challenging environment in which to run something as complex as an airline operation", said Prendergast.

Fuel costs in Africa are around 20% more expensive in the west. Infrastructure remains very poor, particularly at airports, which suffer from inadequate capacity and equipment. Broken-down baggage trucks and insufficient check-in desks are just two examples, he said.

Despite these poor facilities, airport fees and taxes are disproportionately high. "The burden of tax on the airline is very high for this part of the world. At the same time, you're not making enormous revenues because it has to be matched with [passengers'] income." Government support is needed for the airline industry. "If we're bringing people into a part of the country where they are going to spend money, why are the airlines being taxed for that? We're facilitating trade and commerce.

"In a country where there's no real infrastructure, the roads aren't reliable and there are great distances, the resurgence of domestic

SOMMAIRE

Arik Air en pleine expansion au Nigéria

Arik Air prévoit une croissance soutenue du transport aérien au Nigéria et dans la région avoisinante. La compagnie doit cependant mettre en place un plan d'expansion au sol comme dans les airs pour en profiter. Une enquête d'Alan Dron.

C'est étonnant qu'un pays aussi peuplé que le Nigéria (168 millions d'habitants) ne possède pas son transporteur national. Depuis la disparition de Nigeria Airways en 2003, l'état nigérien n'a pas été capable d'établir une nouvelle compagnie.

« Nous sommes de facto un transporteur national », rappelle Conor Prendergast, directeur des opérations d'Arik Air.

Sa flotte se compose de deux Q400, quatre CRJ-900, 13 B737, deux Airbus A330-300 et deux A340-500.

« La complexité de notre flotte n'est pas un atout en terme de rationalisation des coûts mais elle nous aide pour nos opérations compte tenu de la géographie du pays », explique-t-il.

Les B737 opèrent principalement sur la côte ouest de l'Afrique. La route Lagos-Londres Heathrow est assurée quotidiennement. Un nouveau Boeing 777-300, livré en 2017, sera déployé Londres et New York.

Arik Air possède un programme ambitieux de renouvellement de sa flotte et d'expansion de son réseau. Elle doit recevoir trois CRJ et quatre Q400. Quatre B737-800 vont également rejoindre la flotte d'ici 2016-2017 et surtout huit B787 vers 2018-2019.

□ □ □ □ □

La compagnie devrait opérer prochainement la route Lagos-Abuja-Dubai. Suivront ensuite Lagos-Abidjan et Lagos-Libreville. Il est prévu aussi de lancer Abuja-Jeddah.

Selon Conor Prendergast, Air Arik a fait un choix stratégique et de sécurité en décidant d'effectuer ses opérations de MRO avec des prestataires de premier ordre en Europe. Le marché africain reste un environnement extrêmement difficile pour réaliser une opération aérienne. Le coût du carburant, les taxes et impôts restent élevés et les infrastructures aéroportuaires sont souvent rudimentaires.

Le Nigéria a pourtant une économie appelée « MINT » avec une prévision de croissance rapide. Les opportunités pour développer des affaires sont énormes mais des efforts restent à faire pour assurer le transit des passagers vers d'autres destinations domestiques ou régionales.

Les transporteurs du Moyen Orient commencent à affluer au Nigéria. Air Arik possède un accord interligne avec Emirates et compte consolider ce type de coopération. Cela lui permettrait d'étendre davantage son réseau et d'attirer plus de passagers via les hubs de cette région. D'autres transporteurs ont aussi exprimé leur intérêt comme Jet Airways de l'Inde. Encore un moyen d'attirer le trafic passant par Dubai.

airlines in the last few years has been a boon to the country." Its importance to recent economic growth could not be understated and infrastructure needed to keep pace, he added.

"Nigeria is now a 'MINT' economy – the next wave of rapidly-growing nations that includes Mexico, Indonesia, Nigeria and Turkey – and you can see in the last two years, in particular, a very rapid and distinctive change," said Prendergast. "You can tell there is more money in the country – there are better cars on the roads, there are more restaurants. There is a rapidly rising middle-class and they want to travel.

"There are lots of business opportunities. Many Nigerians are returning home from Europe to set up businesses. There is a huge diaspora. They are very proud and loyal to Nigeria and they also like to come back and visit friends and relatives.

"Compound that with the country's population growth; Lagos is set to be a 'supercity' by 2025. It will be a major commercial hub for central and west Africa."

Accompanying the rise of Nigeria, neighbouring Ghana – generally regarded as a well-run country – is also doing well economically, which adds to the region's prospects.

□ □ □ □ □

So, there are plenty of opportunities. But there are also threats.

"The whole cost and burden of operating in Africa needs to be lightened. It's a barrier to entry for competition and it doesn't incentivise trying new routes," said Prendergast.

The lack of infrastructure also has to be addressed. Murtala Muhammed International Airport in Lagos, for example, lacks a transfer facility for passengers flying beyond the city. Passengers arriving there and flying on to Accra, for example, have to clear immigration, then check-in again for the onward flight.

"People want to go beyond Lagos. That's why we really see the strategic importance of growing regional routes. We will be starting schedules to meet emerging traffic flows, although it's coming in with other carriers."

The high cost of operating in Nigeria (together with a lack of secondary airports) has deterred low-cost carriers from setting up in competition, but rivals are coming from further afield, said Prendergast.

"The Gulf carriers are pouring in. We can't compete at the moment, we don't have the lift." Arik Air has a one-way interline codeshare agreement with Emirates Airline, which the parties are looking to expand under their wider cooperation agreement.

"For example, it is currently only for flights to Dubai, but Arik is looking at the possibility of some sort of wider arrangements with both Emirates and others. Interest has been shown by several other carriers, such as Jet Airways of India, which could pick up traffic coming through Dubai."



airworthiness management
operational management
asset management
CAMO services



...decisively ahead!

www.primus.aero

The Seychelles is an archipelago where being laid-back is both a state of mind and a way of life. Three years ago, however, the atmosphere at its national airline was anything but relaxed. Alan Dron reports on the improving situation since Etihad took a stake last year.

Etihad plots return route for Seychelles

Air Seychelles, like so many carriers, had run into serious financial problems during the economic downturn. Three years of heavy losses were imposing severe strains on the airline and the government had provided several financial injections between 2007 and 2011 to shore up its balance sheet.

From late 2011, in an effort to staunch the flow of red ink across its accounts, it cut most of its long-haul routes, dropping Singapore, Rome, Milan, Paris and London from its route map. That curtailment meant returning two Boeing 767-200s and three 767-300ERs to lessors.

Air Seychelles cited as reasons for the cull a combination of the European economic crisis driving down demand, plus growing competition from Middle East carriers.

Ironically, it has been a link-up with one of those carriers that is helping propel the small Indian Ocean carrier back into the black.



In early 2013 it was announced that Etihad Airways would take a 40% stake, worth \$20 million, in the island carrier, with that sum being matched by the islands' government. Etihad would also provide a \$25 million shareholders' loan as working capital and would be awarded a five-year management contract. Since then, Air Seychelles has pulled out of its financial nose-dive and is clawing its way back to altitude.

It has not been an easy journey. The restructuring of the airline to 'right-size' it for its smaller role meant cutting almost 20% of its workforce. These included all of its European station staff, but also personnel at home.

However, 2012 saw the carrier inch its way back into the black, posting a net profit of \$1 million, a figure that climbed to \$3 million in 2013.

"Air Seychelles is an enabler to the Seychelles' economy in the form of tourism and trade," said CEO Manoj Papa, who took up his position early this year.

"We see ourselves playing a really big role in

The company's return to Paris this year, following a two-year suspension of the service, was marked by the traditional water arch salute.



that. That's my primary focus; whatever we do is driven by the need to grow and support the Seychelles economy."

The link with Etihad has been a win-win situation, he said. Etihad had been able to increase its fast-expanding network of codeshares and equity alliances, allowing it to feed more traffic through its Abu Dhabi hub. Air Seychelles had been able to tap into 'best-in-class' practices and benefit from cost synergies.

The day after Papa made his comments, he was due to meet 20 newly qualified cabin crew who had trained with Etihad in Abu Dhabi – a clear example of the ability to tap into Etihad's capabilities combined with improvements to the Seychelles' economy. It allowed Air Seychelles trainees to be exposed to global standards, while the graduating cabin crew represented an income for 20 Seychellois families, he said.

Pilots also do their training in Abu Dhabi.

The link with Etihad has also allowed Air Seychelles to make use of the former's buying power in negotiating contracts, enabling it to cut better deals.

External assessors have reflected improvements in service since the Etihad link-up. Air Seychelles has been upgraded to four-star carrier status by Skytrax, which uses passenger feedback to calculate rankings.

In 2013, Air Seychelles was ranked number 56 globally, up from 133 just a year previously and the highest position it has ever achieved. The UK-based

assessment organisation also rated Air Seychelles as the second-best airline in Africa, a rise of eight places in just a year. Its staff were rated as third best on the continent, a category in which they had not previously featured.

Papa has spent much of his career with South African Airways (where he helped create that carrier's long-term turnaround strategy), but from 2007-12 he was with Etihad, ending up as vice-president, corporate strategy.

He sees his role as picking up where his predecessor, Cramer Ball (now CEO of India's Jet Airways, another airline in which Etihad has a large equity stake) left off and taking the growth plan to the next level.

The network is starting to grow again. The arrival of a second Airbus A330-200 – the European aircraft are younger and more fuel-efficient than the old 767s – allowed the start of a thrice-weekly service to Hong Kong, via Abu Dhabi. This is aimed at tapping into the increasingly lucrative Chinese tourism market; Chinese tourist numbers to the Seychelles have doubled, year-on-year, for each of the past four years.

There has also been an increase in frequencies to Johannesburg, another important point on the route map, and in July Air Seychelles returned to Paris with a twice-weekly service. With only two A330s, codeshare partners will be used to expand the route map further. In the past couple of years, codeshares have been signed with Airberlin, South African Airways and Czech Airlines.

SOMMAIRE

Etihad montre la voie à Air Seychelles

Les Seychelles est un archipel ou la décontraction est à la fois un état d'esprit et un mode de vie. Or, cette quiétude n'était pas de mise il y a trois ans au sein de la compagnie aérienne nationale.

Air Seychelles a connu de graves problèmes financiers au plus fort de la crise financière mondiale. Elle accusait de lourdes pertes ce qui a amené le gouvernement des Seychelles à renflouer les caisses entre 2007 et 2011 pour consolider son bilan.

La compagnie nationale seychelloise a fait de nombreux efforts pour stopper cette hémorragie. Elle a arrêté la plupart de ses vols long-courriers (Singapour, Rome, Milan, Paris et Londres) et par conséquent la location de ses Boeing 767. La compagnie a en effet du faire face à la baisse du marché européen et à une concurrence croissante des compagnies aériennes du Moyen-Orient. Et c'est avec le concours d'une de ces compagnies qu'Air Seychelles a pu se remettre sur pied.

Etihad Airways a pris une participation de 40% au sein d'Air Seychelles qui fut accompagné d'un prêt de 25 millions de dollars et d'un contrat de gestion de cinq ans. La restructuration d'Air Seychelles a cependant été douloureuse avec la suppression de près de 20% de ses effectifs. Air Seychelles a depuis enregistré des bénéfices en 2012 et 2013.

Selon Manoj Papa, nouveau PDG d'Air Seychelles, la compagnie est une véritable locomotive pour l'économie du pays. "Notre partenariat avec Etihad est gagnant-gagnant." La compagnie d'Abu-Dhabi a augmenté considérablement son réseau via des partages de code et des alliances. "Nous avons été en mesure de bénéficier de meilleures pratiques internationales et de synergie de code en particulier pour la formation de nos PNT et PNC. Air Seychelles est désormais une compagnie classée 4 étoiles par l'agence de notation Skytrax."

Son réseau est en pleine expansion, l'arrivée d'un deuxième Airbus A330-200 lui a permis de desservir trois fois par semaine Hong Kong via Abu Dhabi. Le marché du tourisme chinois est en pleine explosion. Les fréquences ont également augmenté sur Johannesburg et la compagnie est revenue sur Paris avec un service bihebdomadaire. Des partages de code ont été également signés avec Air Berlin, South African Airways et Czech Airlines. Air Seychelles disposera d'un Airbus A320 en location auprès d'Etihad au dernier trimestre de 2014 pour renforcer ses routes régionales sur l'océan Indien.

Manoj Papa voit un potentiel pour desservir à nouveau l'Inde, probablement via un partage de codes avec Jet Airways fin 2014.

Air Seychelles exploite un large réseau domestique. L'archipel compte environ 115 îles. 90% du trafic s'effectue entre Mahé et Praslin. La compagnie opère désormais des Twin Otter de nouvelle génération, plus robuste. La demande est croissante et les lignes intérieures sont rentables.

Manoj Papa rappelle enfin qu'Air Seychelles n'est pas à l'abri des menaces extérieures qui pèsent sur les autres compagnies aériennes. Elle dispose toutefois d'une base solide et a désormais démontré sa capacité de réussir.



The new batch of Twin Otter Series 400s is replacing 20-year-old examples of the type.

PICTURE: VIKING AIR LIMITED

To expand regional services, Air Seychelles will take an Airbus A320 on wet lease from Etihad in the fourth quarter of 2014. Destinations for the single-aisle aircraft include Mauritius and Madagascar, fellow Francophone nations.

Papa sees the potential to return to India, probably by way of a codeshare with Jet Airways. If that comes to fruition, Mumbai is the most likely destination, with late 2014 pencilled in for the start of services.



As well as international services, Air Seychelles runs an extensive domestic network. There are some 115 islands in the archipelago and, although around 90% of domestic flights are between the main island Mahé and the second largest, Praslin, it serves airstrips on around 20 others, including Bird, Denis and Frégate.

For these vital services, the company has for many years used three 19-seat DHC-6-300 Twin Otters. Now around 20 years old, they are being replaced by the new-generation Series 400, built by Canada's Viking Air.

Air Seychelles took the second example of the new variant off Viking Air's production line in 2011 and has since ordered a further three. Two of the latest batch arrived over this summer, a year earlier than planned. "They were just available for us to accept them earlier and that

helps us revamp and build up our domestic flying," said Papa.

The Twin Otters have a reputation for ruggedness and their short take-off and landing (STOL) capabilities make them ideal for some of the short airstrips dotted around the islands. "We use them like a shuttle service," said Papa. As well as the four Series 400s, the company will retain one of the earlier Series 300s, at least in the short term.

Domestic traffic has been growing since the beginning of 2013; by late last year it was up 15% for visitors and 13% for local commuters. With costs lower after the restructuring, plus rising demand, the domestic routes are profitable, unlike many similar services in other nations.

Completing the fleet is a single example of an aircraft that is something of a rarity today, a Shorts 360. Normally this is used as a dedicated freighter around the islands, but a study is under way to see if it could also be used for passengers, should the opportunity or need arise.

Tourists and honeymooners will remain the major component of inbound traffic to the Seychelles in years to come, but Papa says there is an increasing focus on encouraging people to see the islands as a site for business meetings and conferences.

"We're not immune to the threats affecting other airlines, but we've now got a right-sized airline and have shown that the business is a great success story," said Papa. "It's got a sound foundation. It's a new airline, not the Air Seychelles people have known in the past."

Lead MRO in Africa

Facilities and capabilities

1. Hanger accommodates six aircraft ANTONOV-72 at any one time
2. Equipped with fully supported work shop
3. NDT services
4. Complete painting work shop
5. Qualified and certified staff

The centre awarded several internal and external approvals:

- Antonov design bareue approvals
- Sudan civil aviation authorities approvals
- DRC approval

Maintains the following type of aircraft up to C check:

- AN-2 • AN-12 • AN-24 • AN-26 • AN-30 • AN-32, AN-72, AN-74
- Il-76 (as soon approved)

The centre also provides maintenance and overhaul services of MI helicopters such as:

- All MI-8 versions • MI-17 • MI-171 • MI-172

Also the centre provides

- NDT services five method
- Prolongation services
- All Spare parts of Antonov and mi helicopter
- Consumables and spare part supplements





Syphax now has two Airbus A319s (pictured R&L) and an A330.

Syphax figures out the way ahead

«Syphax Airlines toujours ambitieuse» – Page 54

Mohamed Frikha ruffled feathers when he launched Syphax Airlines two years ago and, as Martin Rivers discovers, the chairman is intent on shaking up the Tunisian market further.

In an aviation market as heavily regulated as Tunisia, Mohamed Frikha, the founder and chairman of Syphax Airlines, fully anticipated that his start-up would encounter push-back from existing players when it launched in April 2012.

Sure enough, on the very first day of operations at Tunis Carthage International Airport, Syphax's passengers were turned away by staff from the ground-handling division of flag-carrier Tunisair.

The debacle marked a rocky start for the fledgling privately owned airline, and it was not to be an isolated occurrence.

Over the months that followed Tunisair's former chief executive, Rabah Irad, repeatedly accused his competitor of "illegal and unfair"

business practices. Though undoubtedly a headache, this opposition ultimately failed to deter Frikha from injecting competition into the sector.

Syphax's fleet now stands at three aircraft (two Airbus A319s and one A330), and it has orders for three current-generation A320neos plus three under-development A320neos.

The airline operates scheduled flights from four Tunisian cities – mainly Tunis and Sfax, but also Monastir and Djerba – to Istanbul, Jeddah, Tripoli, Sabha, Paris and Montreal.

An extensive charter network also keeps utilisation high, but Frikha said the carrier's existing operations barely scratch the surface of its long-term vision.

Continued
on Page 54

CONTINUED FROM PAGE 53

“Our target is to arrive at 15 aircraft around 2018, [serving] two million passengers,” said the chairman, who became one of Tunisia’s best-known businessmen after founding the multi-sector IT firm Telnet Group in 1994. “We will take two of the [current generation] A320s in 2015, and another in 2016. We will lease a second A330 in 2015. Then we will lease more A320neos after that.”

Asked about future network growth, he said the airline would develop in three regions: “Africa – [both] north Africa and the sub-Saharan countries; Europe; and long-haul – Asia, North America and South America.”



Expansion will initially be focused on Europe, where Syphax’s varied charter operations have continuously been put to work testing market potential. Non-scheduled services to cities like London, Brussels, Lyon and Zagreb have already proven popular with customers, but Frikha said no firm decisions have been made and evaluations were on-going across the continent.

“We want to work on Germany, Belgium, Italy, Spain, and England,” he noted. “Our project is to transfer these charter flights into regular flights, so we are looking at many different network

“I hope that we are complementary to Tunisair. It depends on them. On some routes there is not a lot of demand, so you need only one company. But there are also larger routes where I think we can work together.”

MOHAMED FRIKHA

scenarios, and we will soon announce our new network for the next three years.”

A more complicated picture emerges in Africa, where Tunisia’s own experience of protectionism is a continent-wide problem. Although west Africa has always been in the business plan – Frikha singled out Côte d’Ivoire, Gabon and Nigeria as the prime targets – securing designations on both ends may not be straightforward.

Air Arabia chief executive Adel Ali has long complained of regulatory intransigence over his efforts to link up Morocco with west Africa, and the Tunisian Government is likely to be just as uncooperative – especially since Tunisair serves five points in the sub-region. Nonetheless, Frikha is

focused on the long-term and sees clear potential in connecting west Africa with Europe via Tunisia.

“In the beginning, it [west Africa] will be point-to-point,” he explained. “But our strategy is to develop the three regions – Africa, Europe and long-haul – [so that they are] all feeding into Tunisia.”

For North Africa, charter services have again been used to test the water before rolling out regular flights. Casablanca in Morocco continues to be operated on an ad hoc basis, while the Libyan cities of Tripoli, Benghazi and Sabha quickly matured into scheduled points. Unfortunately civil unrest across the border has since grounded those services, with both of Libya’s main international gateways closed due to fighting.

Frikha stressed that Tunisia’s neighbour to the east is a “very important market” for Syphax – as evidenced by its earlier decision to serve the capital from all four bases – but Libya’s volatile and unpredictable security situation remains an operational challenge.



Benghazi’s Benina International Airport has been closed since May due to fierce fighting in the city, and service at Tripoli International Airport is often sporadic.

“If we can fly, we fly,” he said. “Sometimes we have to cancel flights. We always make sure there is contact there and we watch the situation. We coordinate with the Tunisian Civil Aviation Authority, and if it is necessary we stop temporarily.”

Further afield, the long-haul side of the business is also beginning to take shape. In April, Syphax launched weekly flights from Tunis to Montreal. Load factors on the route started at about 50% but were forecast to reach 80-85% this summer, so Frikha was eager to add more points. Beijing will become the next long-haul destination in November, he confirmed, followed by New York in 2015 and then either Rio de Janeiro or Sao Paolo in 2016.

The arrival of the second A330 next year will enable much of this growth, with Syphax leasing the aircraft for five years from Airbus. But further antagonism by Tunisair cannot be ruled out.

Asked about Jrad’s claim that Syphax enjoys anti-competitive advantages, Frikha chose his words judiciously. He had previously accused the flag-carrier of hypocrisy, telling local media that state-owned entities were far more likely than private companies to benefit from special privileges. But on this occasion the chairman opted for a more conciliatory tone.

“I hope that we are complementary to Tunisair. It depends on them,” he insisted. “On some routes there is not a lot of demand, so you need only one company. But there are also larger routes where I think we can work together.”

Protectionism for loss-making Tunisair remains a potent threat to Syphax, manifesting itself in several different ways. As well as facing difficulty in securing route designations, the start-up must contend with restrictions over the types of aircraft it can legally deploy.

SOMMAIRE

Syphax Airlines toujours ambitieuse

Mohamed Frikha était très remonté lorsqu’il a lancé Syphax Airlines il y a maintenant deux ans. Et comme le souligne Martin Rivers, il a bien l’intention de bousculer davantage le marché tunisien.

Dans un marché du transport aérien fortement régulé, Mohamed Frikha, fondateur et président de Syphax Airlines, s’attendait à ce que sa start-up connaisse des hostilités lors de son lancement en avril 2012. En effet, elle a du faire face au blocage de ses passagers par le personnel au sol de Tunisair.

Malgré un démarrage chaotique, la flotte de Syphax est composée désormais de deux Airbus A319 et un A330. La compagnie a placé une commande de nouveaux Airbus A320neo. La compagnie opère des vols réguliers à partir de quatre villes tunisiennes (Tunis, Sfax, Monastir et Djerba) vers Istanbul, Djeddah, Tripoli, Sabha, Paris et Montréal.

« Notre objectif est d’avoir 15 avions dans notre flotte d’ici 2018 et de transporter deux millions de passagers », affirme Mohamed Frikha.

Syphax Airlines compte essentiellement développer son réseau en Afrique, en Europe, en Asie et sur le continent américain. La compagnie opère des vols charters et compte accroître ce type de services sur les grandes villes européennes. Elle projette également de transformer ses vols charters en vols réguliers.

Le développement en Afrique est plus complexe en raison du protectionnisme pratiqué par plusieurs pays. Le marché libyen semble intéressant mais la situation imprévisible en matière de sécurité est le principal défi pour une opération viable.

Cependant, Syphax Airlines a lancé un vol hebdomadaire sur la route Tunis-Montréal. Elle desservira de nouvelles destinations comme Pékin en novembre, New York en 2015 puis Rio de Janeiro ou Sao Paolo en 2016. La compagnie compte sur l’arrivée d’un deuxième A330 en 2015.

Mohamed Frikha souhaite que Skyfax Airlines puisse travailler de concert avec Tunisair pour trouver des complémentarités, malgré le protectionnisme étatique. Il estime que le projet de ciel ouvert en Tunisie favorisera la croissance du trafic.

Les partenariats constituent une des pierres angulaires de la stratégie de Syphax Airlines pour créer des synergies au sein de son réseau. Elle cherche des accords interliges ou des codeshare au Canada et espère nouer des alliances avec les compagnies du Maghreb sur une base de coopération.



**Protectionism
for loss-making
Tunisair remains a
potent threat to
Syphax.**

“Right now we are not allowed to do regional [aircraft] flights,” Frikha complained, noting that Tunisair Express has a monopoly on such services with its mixed ATR and Bombardier fleet. “I think it is very important for us to do regional flights to feed our international flights. If the law changes and we have the capability to do this, we can purchase other kinds of aircraft.”



Syphax has approached the government about the subject, but Frikha predicted that any talks would fall under the wider banner of open skies – a line of discussion that has failed to gain traction in recent years.

Although in theory open skies should promote traffic growth, the government is understandably reluctant to take steps that might hasten the demise of its struggling flag-carrier.

Overtaking the restriction on regional aircraft, therefore, might not be a priority for Frikha, who also has his eye on mutually beneficial goals, such as securing infrastructure upgrades.

Enfidha Hammamet International Airport stands out as one target for lobbying. The gateway, opened in 2009, is currently used by Syphax for charter flights. Although Frikha described it as a “very nice airport”, he warned that communication systems were “a problem” at the base and further investment was needed before its full potential could be realised.

Partnerships make up the final piece of the puzzle. Syphax is already seeking an interline or codeshare deal for its Canadian route, and Frikha hopes to unlock synergies elsewhere in his fast-expanding network.

The chairman gave his interview at the International Air Transport Association (IATA) annual meeting in Doha – the first time the industry group’s AGM had been held in the Gulf. Asked if Syphax is ultimately pursuing the same

mega-hub strategy as Qatar Airways, Frikha stressed that a region like north Africa was better suited to a cooperative model.

“I think we should speak about the Maghreb, not just Tunisia,” he responded. “In the Gulf, you have Emirates, Etihad, Qatar. In Europe, there are also big companies. So I think the airlines of

the Maghreb should make an alliance – RAM, Algerie, Afriqiyah – and that will be very good for the region. With an alliance, we will all be stronger.”

COMPLETE aircraft spares support

Flexible component solutions from sale and exchange to pooling, power-by-the-hour and repair management.

Comprehensive engine sales, leasing, parts supply and management.

Integrated consumables management services.

As always with AJW, service excellence from the best.

AJW aviation

www.ajw-aviation.com
sales@ajw-aviation.com
+44 1403 798000



24/7

Michael Duncan
Regional Director – Africa
+27 73 084 5240
michael.duncan@ajw-aviation.com

24/7 AOG: +44 7831 583 205 or +1 877 780 2008



CemAir finds a new

It is not often that an airline makes an equipment purchase that, in one fell swoop, gives it the largest fleet of its type on the continent. It is even less usual for it to announce that it will immediately be breaking down half of that fleet for spare parts. That, however, as Alan Dron reports, is the position in which South Africa's CemAir finds itself.

With a current fleet of 11 Beech 1900 commuter turboprops (two 1900Cs and nine 1900Ds) and three Bombardier CRJ-100 and -200 regional jets, the airline earlier this year completed a purchase of no fewer than 15 further CRJs from US carrier Delta Airways.

The 50-seat CRJs, which had been used by Delta Connection operator Comair, had been sitting in desert storage at Kingman, Arizona since Delta closed down the latter operation in 2012, citing the difficulty of operating the aircraft profitably in a world of sustained high fuel prices.

Privately-owned CemAir, which started life as a leasing operation but which is increasingly moving into scheduled services under its own name in South Africa, intends to standardise on the -200 version. The -100 and -200 are virtually identical apart from having different variants of the General Electric CF-34 engine; the powerplants on the -200 have slightly more efficient airflow and better fuel burn, but the two engine sub-types are so similar that the aircraft can operate with one engine of each.

The CRJ is not a particularly common sight in African skies, but CemAir made its choice after much deliberation, said Declan McEneaney, who is responsible for quality at the Johannesburg-based airline. The type's reliability was a major factor. CemAir could also foresee that its customers would want to move up from the relatively utilitarian 1900s to a more sophisticated type.

"We took a strategic view of the world, looking at the type of customers we'd like to be working for and the type of places we want to

operate to. We looked at the dash 8, which we still like, and the ATR but events have proven we're able to service the customers we are working for with the CRJ."

The first three CRJs acquired by CemAir in 2012 were sister ships from the Comair/Delta Connection fleet. "That led to further enquiries and we ended up with the opportunity to acquire the rest of the retired Comair fleet."

Current plans call for five of the CRJs to be placed on contract operations outside South Africa, while another three will operate in the company's growing scheduled network. The remaining eight will either be parted out or sold to be parted out. That process could take place in South Africa, or in the USA, where CemAir has an affiliate company with an office in Florida.

The parts will be recertificated and then added to CemAir's inventory.



So why does the company intend immediately to part out around half of its newly-acquired fleet? The deal with Delta includes additional engines and spares and CemAir intends to build up a substantial stock of spares to provide lessees with the assurance that the fleet can be kept running over a significant number of years.

Meanwhile, the turboprop fleet is being deployed on a number of routes within South Africa. "We're developing a number of [South African] internal scheduled services, based on the Beech 1900 fleet, to destinations such as Margate, Plettenberg and Sishen," explained McEneaney.

These have generally been well received: "Not



lease of life

a lot happens in Margate. When our inaugural flight landed, the terminal was packed with local people there to greet us. The mayor made a speech linking all the economic drivers, tourism and air services. All for a Beech 1900 three or four times a week!”

CemAir believed that several of these domestic sectors would be thin routes but has been pleasantly surprised by load factors that have remained consistently strong. Further route analysis is under way, with a view to extending this domestic network when the CRJs started to arrive.

The CRJs will service longer sectors, where their higher speed can be used to best effect and CemAir believes that the type’s reliability and passenger appeal will keep it in its fleet for the next decade.

Currently, CemAir operates out-stations in Senegal, South Sudan and Nigeria. In Senegal, a single CRJ operates eight sectors a day on behalf of Senegal Airlines, while in South Sudan it operates on behalf another carrier, handling a mix of commercial flights and oil company support work. In Nigeria, a single 1900 operates as a corporate shuttle on behalf of a cement company in Lagos, while two more of the turboprops are based at Port Harcourt on non-scheduled work on behalf of a hydrocarbon company. The identities of both its South Sudanese and Port Harcourt clients are protected by confidentiality clauses.

Frequently, stopgap jobs turn into something more substantial. “In Senegal, we initially went for one month and we’ve been there for 15 months now,” said McEneaney. “In our experience, these jobs tend to take on a life of

their own. You go somewhere because someone has a short-term need and end up becoming part of the furniture, so to speak.”

All CemAir’s aircraft operate in an anonymous all-white colour scheme, with only the company name on the tail and beside the front fuselage door to give any indication of its identity. This is designed to make it easier to fit into the operations of contract customers without raising questions in the minds of passengers as to why their flight is being operated by an airline whose name differs from that printed on their ticket.

The company is a low-profile operation, accepted McEneaney: “Even here in South Africa we tend to just get our heads down and get on with the work.”



That work often requires its crews to demonstrate more resilience and ingenuity than might be the case in North America or Europe. Operating into small airfields with sometimes minimal ground or air traffic control facilities means that pilots are often thrown back on their own resources.

“They have to exercise a very much higher level of awareness and decision-making because of that environment,” said McEneaney. “If the Internet isn’t available and the electricity has gone off, you can’t just sit there, say ‘Gosh’ and get your knitting out. You’ve got to make things happen. You have to be resourceful. We occasionally get the odd airline guy joining us and they suffer a hell of a culture shock.”

Continued
on Page 58

CemAir will receive 15 former Delta Air Lines Bombardier CRJ regional jets. The aircraft have been stored at Kingman, Arizona since 2012.

SOMMAIRE

CemAir en mode leasing

Il n’est pas courant de voir une compagnie aérienne passer une commande d’avions et de se séparer ensuite de la moitié. C’est pourtant, comme le rapporte Alan Dron, ce qu’a fait la compagnie sud-africaine CemAir.

CemAir a procédé cette année à l’achat de 15 avions CRJ provenant de la compagnie américaine Delta Airlines. Ces avions étaient parqués dans le désert d’Arizona après l’arrêt des opérations de la compagnie en 2012. CemAir disposait d’une flotte de 11 Beechcraft 1900 et de trois CRJ-100/-200.

CemAir fait ce choix pour sa fiabilité et le confort de ses clients, selon son directeur de la qualité, Declan McEneaney.

La compagnie compte placer cinq des CRJ sur la base d’un contrat d’opérations et trois autres sur son réseau. Les huit autres seront cédés ou vendus.

Pourquoi donc céder la moitié de la flotte récemment acquise ? L’accord avec Delta Airlines incluait des moteurs et des pièces de rechange supplémentaires. CemAir a ainsi l’intention de constituer un stock de pièces de rechange pour pouvoir fonctionner pendant plusieurs d’années.

CemAir se déploie aussi sur un certain nombre de routes en Afrique du Sud à savoir Margate, Plettenberg et Sishen. Elle opère aussi des vols vers le Sénégal, le Soudan du Sud et le Nigéria.

« Nous étions essentiellement une société de leasing », souligne Declan McEneaney. « Nous voulions proposer un avion en bon état, prêt à décoller avec un équipage compétent et un service de qualité, là où vous vouliez aller. »

CemAir a une expérience en Afrique et au Moyen-Orient. Elle a aussi participé à des opérations caritatives internationales comme en Afghanistan.

La stratégie de CemAir est de décrocher davantage de contrats et de se concentrer sur le développement de nouvelles routes en Afrique du Sud.

Les perspectives de CemAir sont semblables à celles du continent: « Le marché offre un potentiel énorme. Même s’il n’est pas entièrement dynamique, il fournit assez de travail. »



**Lose the complexity.
Lose the inadequacy.
But never lose the opportunity
to save a life.**

For more than 20 years, Spectrum Aeromed has specialized in creating life support systems designed to enhance the abilities of your crew, while supporting the life of their patients.

We offer basic and advanced systems, single or multiple-patient configurations, as well as customized interiors for both fixed wing and rotor wing aircraft.

Visit our website and select your specific aircraft type to see your equipment options.

Spectrum-Aeromed.com +1 701.235.5478



SPECTRUM
Aeromed > Supporting life.



CemAir operates in an anonymous all-white colour scheme, with only the company name on the tail and fuselage door to make it easier to fit into the operations of contract customers.

CONTINUED FROM PAGE 57

All CemAir's operations controllers have commercial pilots' licences and are encouraged to aspire to the ATPL rating. "They can get the occasional right-hand seat job after they have done the simulator and done a check-flight. This gives them some career development; young, low-time commercial pilots have a very hard time in establishing themselves."

CemAir has grown from modest beginnings in recent years. It began life in 2002 when McEneaney, Miles van der Molen (now CEO) and Brian Bendall (who later died in a light aircraft crash) acquired a Cessna Grand Caravan before an opportunity arose to buy three Beech 1900Cs from another Johannesburg operator, Rossair.

"We were essentially a leasing company," said McEneaney, who left CemAir for a while before later rejoining. "Our proposition was that we would supply you with a serviceable aircraft, ready to go, with a competent crew, for wherever you wanted to go. Our objective was to offer a first-world service in a third-world environment. And that can be challenging."



The company has operating and leasing experience throughout Africa and the Middle East, including Sudan, the Democratic Republic of Congo, Kenya, Mali, Botswana, Mozambique and South Africa.

International charities are among its clients. That work took it to Afghanistan where, at one time, it had no fewer than eight Beech 1900s operating in support of aid organisations, based in Kabul and operating to little more than gravel strips in some of the world's harshest conditions.

The crews operating there had to cope with not only extreme weather. A Taliban car bomb killed one of the company's engineers. "It left an indelible mark on us as a group, but we didn't pull out," said McEneaney. "We realised that you can't completely guard against that sort of thing."

The Taliban later made it known that they regretted the incident, having not realised that CemAir was a South African company. That was of little consolation to the dead engineer's widow, reflected McEneaney.



In recent years, the company has increasingly concentrated on the 1900D, with its larger-volume fuselage. It has had a policy of never operating more than two types of equipment, to ensure that it holds better-than-average stocks of spares in order to improve in-service support. This is an important selling point in African markets. Aircraft on lease periodically rotate back to South Africa for major maintenance inspections.

CemAir's plan for the future is "to do more of what we're doing, more contract work. We will concentrate on route development within South Africa and on acquiring more contracts in neighbouring states."

Most of the routes flown by CemAir in South Africa until now have not been subject to competition from other airlines. However, the arrival of the CRJs is likely to see some routes being contested with SA Express, which also operates the Canadian twin-jet.

CemAir's prospects, notes McEneaney, are similar to those of the continent: "It's full of potential. While it may not be entirely vibrant, it certainly provides enough work."

Another milestone on the Zimbabwe road to recovery

The Zimbabwean Government is battling to woo back dozens of international and regional airline services that pulled out between 2000 and 2009 as the country descended into a state of political and economic collapse.

Oscar Nkala reports from Bulawayo.

"Air Zim" has two Chinese-built MA-60 turboprops.

Zimbabwean Transport and Infrastructural Development Minister, Obert Mpofu, has revealed that financially-strained national carrier, Air Zimbabwe Private (Limited), will soon resume international flights after teaming up with a Chinese technical partner.

The deal should lead to the resumption of flights from Harare to Shanghai, Beijing and London.

The airline will be restoring its prestigious international flight schedule after a three-year absence due to financial constraints, which left it with an outstanding salary bill of \$35 million. It still owes millions more to service providers.

The airline suspended all operations, including its domestic routes, on February 24, 2012 as the company sank in debt. Until recently it had failed to attract potential joint venture partners for the revival programme.

Mpofu said the airline would soon start flying to international destinations, although the final code-share agreement with the Chinese partner had yet to be signed.

"We are talking to the Chinese. In fact, Air Zimbabwe will be flying to Shanghai and Beijing very soon. We have a serious invitation, with one serious big airline operation for flights to London and China. The negotiations are at an advanced stage and our technical team is engaging a technical partner, who is very keen to work with Air Zimbabwe in servicing the routes to China and London," Mpofu explained.

He added that the Government was still working out ways of clearing the \$150 million owed to several local banks, creditors and service providers by the time of the collapse of the para-statal in February 2012.

The airline resumed servicing the Bulawayo-Harare flight, the only lucrative domestic route, in May 2012. Early this month, it re-introduced the Harare-Kariba-Victoria Falls tourism flight, where it is using two 50-seater, Chinese-made MA-60 aircraft.

The potential return of Air Zimbabwe to the international flight scene was also boosted by the signing, in late July, of an air services agreement (ASA) between the Zimbabwean and Indian governments.

The agreement provides for Air Zimbabwe and Air India to make up to seven passenger or combined passenger and cargo flights into the partner country per week. It also

provides for code-sharing arrangements and allows designated airlines from the two countries to operate an unlimited number of cargo flights between the countries using any type of aircraft.

Indian Ambassador to Zimbabwe, Jeitendra Kumar Tripathi, said the deal marked the first bilateral agreement between the two countries in 15 years.

"What we have done here today is to create a bridge between the two countries and the finer details will be dealt with by the relevant ministries. Through this agreement we have invested \$150 million but, moving forward, the benefits will definitely exceed this amount," Tripathi said.

Mpofu said the agreement marked a milestone in Zimbabwe's bid to woo international airlines back to the country after more than a decade of near-total isolation.

He added that more flights than ever before would be landing at Harare International Airport in the next two months, despite the upcoming suspension of Zimbabwean flights by KLM Dutch Airlines and EgyptAir.

"We are receiving more airlines coming into Zimbabwe than going out, so will be witnessing quite a number of new airlines flying into Harare in the next two months," Mpofu said.



As part of this drive, the Zimbabwean Government is directly funding the refurbishment of aviation infrastructure and recently approved the introduction of an aviation infrastructure development levy on all air travellers entering and leaving the country.

So far, 10 air service agreements have been signed between Zimbabwe and regional, continental and global airline operators who want to resume flights into the country.

The drive to open more regional air routes from Zimbabwe has also recorded one major success with the launch of the FastJet service between Zimbabwe (Harare) and Tanzania (Dar es Salaam).

FastJet is expanding its international route network by bringing two weekly, low-cost flights designed to stimulate tourism and business links between the two countries. Airline chief executive Ed Winter said the service is a direct response to the long-standing demand for a direct flight between the two countries.

"We believe this will stimulate business and tourism in regions where citizens have had to depend on lengthy road transportation or have been excluded from air travel by the significant costs of flying an indirect route through Nairobi or Johannesburg," he said.

Earlier this summer, the Government issued an operator's licence to Vic Falls Airways, a new local airline, which will launch its maiden flight early in October.

Vic Falls Airways director, Itayi Garande, said the airline would offer direct weekly flights to Gatwick Airport in London (UK), Guangzhou (China) and Johannesburg (South Africa).





NAF has used this Russian Mi-35P attack helicopter with its 30mm cannon against Boko Haram this year.

Nigeria takes to the air to

Boko Haram has brought Jihadist terror to northern Nigeria but will a handful of aircraft help turn the tide? Oscar Nkala reports.

The Nigerian Air Force (NAF) took delivery of seven sophisticated military aircraft this summer as part of a re-equipment programme needed to bolster the faltering aerial offensive against the Islamist militant group Boko Haram, which has kidnapped hundreds and killed thousands of civilians in the north.

The list of acquisitions includes a new ATR 42-500 maritime surveillance aircraft, three new Beechcraft King Air 350i light transports, and two Mi-35M attack helicopters. A new Mi-17-V5 surveillance helicopter was also delivered in early June.

According to reports, the force will shortly take delivery of two new Augusta Westland AW101 helicopters to be used for VIP transport duties, taking the number of recently acquired military aircraft to nine.

The country's drive to ramp-up its aerial defence capabilities comes amid a growing chorus of criticism of the army's ground and air offensive against Boko Haram, which seems to be faltering as poorly motivated soldiers desert in large numbers, citing poor equipment, non-payment of salaries, lack of replenishment and logistical support, and the absence of force protection measures, among other concerns.

Following the kidnap of more than 200 schoolgirls from the Chibok area in the north, the Government said it hoped to stem the insurgency by the end of the year as it would have taken delivery of a fleet of up to 40 new attack and transport helicopters, most of them with night-vision capability, from unnamed manufacturers

in the United States and Russia.

According to the Nigerian defence ministry, at least six new Mi-35M helicopter gunships will form part of the order.

Nigerian Chief of Army Staff, commissioner general Kenneth Minimah, said the summer acquisitions were part of a new Government procurement programme that would soon equip the force with sophisticated aerial defence platforms to improve its counter-insurgency capabilities in the north-east.

"Yes, we have the equipment (Mi-35M attack helicopters), and the federal government [of Nigeria] is also introducing more fresh and newer equipment for us," Minimah said.



The two helicopters have night vision capability and they have since been deployed on intelligence, surveillance and reconnaissance (ISR) duties in support of the on-going military campaign in Borno and Adamawa states.

Minimah said the acquisition of new aerial platforms was being completed alongside the re-training and re-branding of the army's 143rd Infantry Battalion into a special elite force, which would use the new aircraft to tackle the Boko Haram insurgency.

He described the training, by teams from the US and British armies at a location in the Niger State, as "a classic special forces mission, which is training an indigenous force in a remote area in an austere environment to face a very real threat".



NAF's new ATR 42-500 maritime patrol/special mission aircraft.

beat Boko threat

More than 600 Nigerian special forces personnel are being trained under the special 'ranger battalion' programme run by 12 US Army instructors from the California National Guard's special operations detachment – US Northern Command, and company A of the 5th Battalion of the 19th Special Forces Airborne Group.

The three-phased programme will eventually establish a full battalion.

The US and British armies will supply the battalion with specialised anti-terrorism weapons and protective equipment, while the Israeli military is providing 'advisory' services on technical, tactical and operational training in the areas of intelligence, weapons handling, asymmetric warfare and the conduct of advanced counter-insurgency operations.

Nigerian Air Force Air group captain, Enobong Effiom, said the new 20-seater ATR-42-500 twin-turbo surveillance aircraft would improve the maritime policing capabilities of the air force.

The aircraft is equipped with sensors, radars and an electro-optic surveillance and tracking (EOST), which operates three cameras, enabling the crew to pass on vital reports to the Nigerian Maritime Administration and Safety Agency.

The country's drive to re-equip the air force is being run alongside an indigenous military aerospace development programme, which has, since 2012, designed and developed the country's first indigenous trainer aircraft, unmanned aerial vehicles (UAVs) and is presently testing an

indigenous unmanned ground vehicle (UGV) designed to detect and detonate bombs and improvised explosive devices (IEDs).

The research, design and development programmes, are being undertaken by the Nigerian Air Force Institute of Technology (NAFIT).

The institute says the country's first indigenous trainer aircraft, which has been named 'Farawa 2', is meant to be a cost-effective replacement of the Air Beetle AB 18 aircraft, which is currently the NAF's primary trainer.



By 1990 10 AB-18 aircraft had been built locally by NAFIT engineers using imported parts but by 2000 they had all broken down, due to lack of repairs. Only one Air Beetle trainer aircraft remains in service with the NAF after being refurbished and re-commissioned in 2010.

In 2011, the air force started a programme of locally refurbishing old military aircraft but it ended prematurely due to lack of funding in 2013. At the time of its termination, the programme had successfully refurbished only 10 Alpha jets.

At its peak in 1990, the NAF had 260 military aircraft, which included 51 assorted trainers, but the majority have been rendered obsolete and remain grounded in a state of disrepair.

As Nigeria's armed forces re-equip, it remains to be seen whether it makes any difference with poor training, poor organisation and corruption still said to be a problem.

SOMMAIRE

Le Nigéria compte vaincre Boko Haram par les airs

Boko Haram a apporté la terreur djihadiste au nord du Nigéria mais quelques avions pourront-ils inverser la tendance ? Le point avec Oscar Nkala.

L'armée de l'air nigérienne (NAF) a pris livraison cet été de sept nouveaux avions militaires. Ils serviront à consolider l'offensive aérienne, parfois hésitante, contre le groupe islamiste Boko Haram, qui a kidnappé des centaines et tué des milliers de civils dans le nord du pays.

Cette livraison comprend un nouvel avion ATR 42-500 pour la surveillance maritime, trois Beechcraft King Air 350i, deux hélicoptères d'attaque Mi-35M et un nouvel hélicoptère de surveillance Mi-17-V5. Selon plusieurs sources, la NAF devrait également recevoir deux hélicoptères Augusta Westland AW101.

Le Nigéria souhaite monter en puissance avec de nouvelles capacités de défense aérienne.

C'était en effet l'une des critiques de l'armée de terre et de l'air dans sa lutte et ses offensives contre Boko Haram.

Il y a également d'autres préoccupations comme l'état des équipements, le non-paiement des militaires, le manque de ravitaillement et de soutien logistique pendant le déploiement des opérations.

Après l'enlèvement de plus de 200 écolières de la région de Chibok, le gouvernement avait déclaré qu'il espérait endiguer cette insurrection d'ici la fin de l'année, la NAF devant prendre livraison d'environ 40 nouveaux hélicoptères de transport et de combat. Cela permettra d'améliorer ses capacités opérationnelles.

Plus de 600 membres des forces spéciales nigériennes seront formés par l'armée américaine et britannique. Il s'agit d'un bataillon spécialisé dans le maniement des armes et des équipements anti-terroristes tandis que des conseillers militaires israéliens apporteront une expertise technique, tactique et opérationnelle dans la manipulation des armes, la guerre asymétrique et la conduite des opérations.

Alors que la NAC se rééquipe, reste à savoir si cela aura un impact face au manque de formation, à une mauvaise organisation et à la corruption.

Africa & The Middle East

Partnership? Investment? Strategy? Challenges!

THE PUBLISHER OF ARABIAN AND AFRICAN AEROSPACE
ANNOUNCES THE LAUNCH OF:



AVIATION AFRICA 2015

10-11 MAY 2015, DUBAI, UAE

A 2 DAY SUMMIT & EXHIBITION LOOKING AT:

- Cooperation between Middle East & Africa
- Raising finance to develop safe & modern operations
- Regulatory Barriers to open skies & natural African growth
- Lessons learned from the Gulf growth
- Human Factors and how aviation safety culture grows
- Developing infrastructure to meet aviation demand
- Business aviation prospects for growth
- Training to meet tomorrow's needs

Speakers will include leaders from Africa & the Middle East, from airlines, civil aviation authorities, business aviation & support industries.

TO BOOK YOUR PLACE AT THIS EVENT GO TO
www.aviationafrica.aero

EVENT SPONSORS INCLUDE:



The GAF has a handful of Mil Mi-17 helicopters.



GAF'S HISTORY IS NO PROTECTION...

*When created in 1959, the Ghana Air Force was the first air arm to be formed by a newly decolonised sub-Saharan nation and it was briefly the largest. But, reports **Jon Lake**, despite its long history and extensive peace-keeping operations, the frontline element is small and ill-equipped – barely sufficient to protect Ghana's airspace and territorial integrity and certainly insufficient to face any credible military or insurgent threat.*

Ghana was the first nation in sub-Saharan Africa to declare independence and sever its colonial links, achieving independence on March 6 1957.

In recent years it has experienced rapid economic growth and is today a significant petroleum and natural gas producer, one of the world's largest gold and diamond producers, and the world's second largest cocoa producer.

With economic growth has come increasing political influence and Ghana is now a major regional power, a founding member of the Non-Aligned Movement and a member of both the Economic Community of West African States (ECOWAS) and the Group of 24 (G24).

Ghana's armed forces have not been engaged in any external war since the nation achieved independence but, in recent years, they have been heavily involved in UN and African peace-keeping operations in the Congo, Ivory Coast, Darfur, Lebanon, Liberia, Mali, Sierra Leone and Somalia, gaining useful combat experience in the process.

The Ghana Air Force (GAF) was founded on July 24 1959 with Indian and Israeli assistance, under the command of an Indian Air Commodore, establishing a headquarters in Accra. The first 10 Ghanaian pilots qualified after training from Israeli instructors in 1960.

The Ghana Air Force was claimed to be the first sub-Saharan air force (though the South African and Royal Rhodesian Air Forces pre-dated it by some decades!).

But it was the first air force of a newly decolonised sub-Saharan nation, and was briefly the largest.

In 1960 UK Royal Air Force personnel took over the training and administration of the newly established Ghana Air Force, with the Royal Canadian Air Force joining the programme in 1961. As a result, and also because of the early influence of the Indian Air Force, the GAF largely adopted RAF terminology, ranks and structure.

From 1962 to 1966, another foreign adviser for the GAF was the famous German test pilot, Hanna Reitsch, who founded the first black African national gliding school as well as serving as Ghanaian President Kwame Nkrumah's personal pilot.



GAF Station Accra was established in 1961 at No3 hanger at the Accra Airport (now Kotoka International Airport), while Air Force Station Takoradi formed on March 1 1961.

Accra housed the air force headquarters, a school of technical training and, from January 1962, a new communications squadron with VIP, helicopter and general communications flights.

In 1965, the station moved to the new Burma Camp, and was joined by No4 Squadron with Macchi MB326s, the GAF's first offensive air power unit, tasked with the fighter ground attack (FGA) role. By this time, GAF Accra housed Westland Whirlwind helicopters (and some Hughes helicopters bought for mosquito spraying), DH Doves and Herons for VIP and communications flying, and a DH125 jet for use by President Nkrumah.

Continued
on Page 64

CONTINUED FROM PAGE 63

At Takoradi, a flying training school was established with de Havilland DHC-1 Chipmunk trainers soon being joined by No1 Squadron, with DHC-2 Beaver aircraft, and No2 Squadron, with twin-engined DHC-4 Caribou tactical aircraft. Subsequently, No1 Maintenance Unit was established there as well.

As part of his vision of the “total liberation of the African Continent”, President Nkrumah launched a major Africanisation programme, under which Ghanaians rapidly replaced foreign officers.

The British Royal Air Force GAF commander was replaced by a Ghanaian air commodore – British-born J E S de Graft-Hayford – in September 1961. A Ghanaian officer took over as the station commander at Accra on January 25 1962, while Takoradi gained its first Ghanaian station commander in 1968.

After a brief ‘golden era’ in the 1960s and 1970s, the GAF struggled to gain adequate funding in the face of other priorities. Operational performance has been hindered by a failure to acquire suitable equipment in some cases, but also by a lack of spare parts and by poor maintenance capabilities. As a consequence, the GAF has sometimes failed to maintain a full spectrum of operational capabilities.



Today’s GAF is, according to Ghana’s national defence policy, tasked with providing “air transport and offensive air support to the Ghana armed forces” and with protecting “the territorial air space of Ghana”.

The primary roles for the air force are providing logistical support and transport to the Ghanaian army and performing counterinsurgency operations.

The national defence policy lists further specific tasks, including maintaining a fighter ground-attack capability and providing close air support during operations, providing surveillance and reconnaissance over the air space of Ghana and over the maritime exclusion zone (MEZ).

Other roles include the provision of liaison, VIP flights, and offering transport support for civilians as the Government directs, including the flying of relief supplies in emergencies, the evacuation of civilians, power line inspections, photographic surveys for mapping, communications flying for private and public organisations, and the provision of medical evacuation and air rescue assistance.



The Ghana Air Force is also responsible for the coordination and direction of search and rescue (SAR) within the Accra flight information region.

Ghana’s defence budget has been expanded in recent years (going from GHS201 million in 2012 to GHS575 million (\$301 million) in 2013. This is in line with the strategic modernisation plan approved by the Ghanaian Parliament several years ago, and which aims to improve the state of readiness of all three Ghanaian armed services through re-equipment, re-organisation and re-training.

This has been driven in large part by the need to protect Ghana’s recently discovered offshore oil and gas deposits to combat piracy (the Gulf of Guinea has already seen a dramatic increase in the number of attacks on ships), and to stand ready to combat any insurgency, terrorism, or other security challenges on the continent, while continuing to conduct such peace-keeping operations as may be required, and continuing to promote peace and stability in Africa.

There is also a growing need for the GAF to combat drug trafficking, with the United Nations estimating that US \$1 billion worth of cocaine, destined for Europe, had passed through west Africa en route from Latin America in 2008; the problem has only been exacerbated since then.

GAF modernisation has so far focused primarily on improving air transport and maritime surveillance capabilities. Thus, when defence minister Joseph Henry Smith announced that \$200 million was being

Some of the GAF’s aircraft, clockwise from top left: Aero L-39, Mil Mi-17, C295 and Diamond DA42.

spent on five new aircraft in 2011, these consisted of two Airbus Military C295 transport aircraft, a single Embraer EMB-190 jet transport and a pair of Diamond DA-42MPP surveillance aircraft.

The C295s are intended to move troops and personnel from other security agencies across the country and within the west African region. The aircraft are also equipped for medical evacuation, paratroop and humanitarian operations.

After delivery in 2012, they were used for the rotation of troops serving with the United Nations multi-dimensional integrated support mission in Mali in 2013.



The role of the new Embraer 190 is not clear. Ghanaian Government sources suggested that the aircraft was for air force use, being acquired as a “strategic airlift aircraft” intended to “significantly enhance the operations of the Ghana armed forces, especially in its peacekeeping operations”. It was denied that this would be a Government VIP transport, since the Government already has a Falcon 900EX for executive and presidential travel. Ghanaian press sources, however, report that the EMB 190 “has been enhanced, at an extra cost, to serve as a presidential/executive jet”. This has provoked some controversy within the country.

The two Diamond DA 42 multi-purpose platform (MPP) Guardian surveillance and training aircraft are less controversial, and



their purpose is clear, since they are fitted with a sensor turret for surveillance missions.

As well as new transport and surveillance aircraft, the GAF has also received new helicopters. On January 7 2013, the then newly elected president John Dramani Mahama commissioned four new Mil Mi-171Sh multi-role military support helicopters, equipped for troop transport, VIP transport, and search and rescue missions.

So far, there has been no effort to recapitalise and modernise the frontline fast jet force, which remains tiny.

When it comes to dedicated combat aircraft, Ghana has just three single-seat Aermacchi MB-326K ground attack aircraft, though these are augmented by two-seat L-39ZO, MB-326E and MB-339A and Hongdu K-8G Karakorum jet trainers, with the Chinese K-8s being primarily used as fighter-bombers.

When the new president was inaugurated, a major military parade was accompanied by a flypast of just two GAF fighter jets.

There have been recent reports of an impending order for six Embraer EMB-314 Super Tucanos for ground attack, counter-insurgency and limited air defence duties. This acquisition would allow the retirement of the ageing Aermacchis and the relegation of the K-8s to training duties.

But Ghana may not have to go it alone and may be able to 'burden-share' in some capability areas. Speaking at the closing ceremony of the 2013 Regional Air Chiefs Symposium in Accra, Ghana's chief of Air staff, Air vice marshal Michael Sampson-Oje,

Ghana Air Force order of battle

The Air Force Staff Headquarters is at Accra, which is also the main base, though the transport element is based at Takoradi on the coast in Ghana's Western Region. There is a helicopter detachment at Kumasi about 180 miles from the coast, and an attack element at Tamale in the North.

Air Force Base Accra:

No.2 Squadron - 1-3 Fokker F27-400M and/or 600 Friendship, 2 Airbus C-295

No.3 Squadron - 1 Agusta-Bell AB.212, 1 Bell 412SP, 2 AgustaWestland A-109A Hirundo, 4-7 Mil Mi-171V and/or Mi-171Sh 'Hip-H', 2 PZL Mi-2 'Hoplite'

Communications Squadron/VIP Flight - 1 Dassault Falcon 900EX, 1 Grumman G-1159A Gulfstream III, 1 Fokker F-28-3000 Fellowship, 1 Embraer 190

Air Force Base Takoradi:

No.1 Squadron - 1 Britten-Norman BN-2T Islander/Maritime Defender, 2 Diamond DA42MPP Twin Star (of six on order).

Flying Training School - 10 Scottish Aviation Bulldog Mk.122, 3 Cessna 172 Skyhawk, 1 Diamond DA42 Twin Star (of six on order).

Recce & Advanced Training Squadron - 8 Aero L-29R Delfin

No 1 Maintenance Unit - no aircraft assigned

Air Force Station Kumasi:

Support Squadron - 2-4 Aérospatiale SA-316 and/or SA-319B Alouette III

Air Force Base Tamale:

No.4 Attack Squadron - 4 Hongdu K-8G Karakorum (of six on order), 2 Aero Vodochody L-39ZO Albatros, 3-4 Aermacchi MB-326KG, up to 3 Aermacchi MB-326E, 2 Aermacchi MB-339A,

pointed out that current security issues tended to transcend national borders and called for political commitment in developing policies, strategies and systems to strengthen regional co-operation in tackling emerging security threats.

Ghana already strongly supports the African Union (AU) and United Nations (UN), and is increasingly using the UN's inability to own and operate its own airlift assets under the charter as an opportunity to step into the breach.

There has been significant growth in the demand for airlift services by the UN and AU in sub-Saharan Africa, driven by the rising number of continental peacekeeping, humanitarian and stabilisation missions. The response by the UN has been to turn to local air forces and other operators to place contracts for the support of its forces, and the GAF has stepped up to the plate, being awarded the UN's first African military airlift services contract in July 2013 to transport peacekeeping troops deployed to Mali, and having already provided airlift in support of the UN stabilisation mission in Ivory Coast.



Following the contract award, Ghana revealed that it was negotiating the lease of two additional Airbus Military C295 aircraft to be deployed for operations in Mali. These were to be funded under a lease-to-purchase agreement that would be paid for from UN funds.

A C295 appeared on the ramp at Airbus Military's San Pablo final assembly site in Seville, Spain, in September 2013 wearing a white colour scheme and carrying UN markings. Airbus Military admitted that the company was: "in discussions with Ghana regarding the possible acquisition of C295s" but stressed that the deal had not been finalised. Subsequently, it was reported that the company financing the deal was not happy with the projected return on its investment and that the contract for the additional two C295s had been cancelled.

The GAF has since reportedly requested four Alenia C-27J Spartans as replacements for the dwindling number of Fokker F-27s that remain in service, though further Airbus C-295 troop transports are still believed to be its preferred option.

Despite the failure of the C295 UN lease-to-purchase plan, there have been reports that Ghana still hopes to procure a range of rotary- and fixed-wing aircraft types to fulfil its airlift contract obligations with UN peacekeeping and stabilisation missions across Africa. These could include Mil Mi-35M 'Hind-E' assault helicopters, Cessna Grand Caravan utility aircraft, as well as HAI Z-9 Haitun utility and Airbus AS365 Dauphin utility helicopters.

*France has established a new military organisation to counter Jibadist groups in its former colonies. **Al Venter** reports.*

WAR ON TERROR

«La France sur tous les fronts au Mali » – Page 70

According to Defence minister Jean-Yves le Drian, Operation Barkhane involves 3,000 French troops backed by six fighter jets, 20 helicopters, as well as three drones, all permanently stationed in the Chad capital, N'Djamena. The objective is to counter Islamic extremists in Mali, Chad and Niger, although the new deployment will not affect on-going counter-insurgency operations in Mali.

What the minister did not say, but which has emerged in several French news reports, is that the war in Mali – now on-going for more than 18 months – is the biggest faced by France in Africa since the end of hostilities in Algeria half a century ago.

That view was backed by the French military attaché in London, who confided that he feared what was taking place in Mali was the start of a 400-year war between radical Muslim forces and the west.

He regarded the war in Mali as a classic guerrilla insurgency and believed it would take much more than basic counter-insurgency efforts to contain it.

For a start, the region in which al-Qaeda in the Maghreb (AQIM) and its Ansar Dine Islamic group allies operate covers several countries in a region half as big as western Europe.

What has emerged is that the enemy is elusive, devious, astute and remarkably well trained. These tribal people have made an art of slipping in and out of mountain hideaways with the kind of ease that comes with experience. They are also totally dedicated to their cause.

Their weapons, almost all of which were filched from Libyan arms depots after Colonel Gaddafi had been toppled, are high quality and even contemporary state-of-the-art.

Continued
on Page 68

A French helicopter
sidegunner in
Northern Mali
combatting
al-Qaeda
guerrillas.



CONTINUED FROM PAGE 66

The attaché added that while the French military effort – quietly aided by several western countries including the US and Britain – was efficient, mobile, and had lots of armour, as well as helicopter gunships, AQIM’s biggest ally was the desert. Those vast, desolate stretches of sand and rock are the rebels’ home – their ‘backyard’. “It has been that way since the beginning of time,” he declared.

What has also become clear since hostilities started is that the rebels have great mobility. In an effort to divert attention from its war efforts in Mali, AQIM in January last year launched a major attack on an Algerian gas installation at Tigantourine. The fact that the target was more than 1,000 kilometres from where the Jihadists were engaged in Mali signifies the enormous influence of these rebels.

Led by ‘Red Beard’ Moktar Belmoktar (he dyed his beard with henna and was killed in a French strike recently), the terrorists murdered 39 foreigners and took 800 hostages.

In the broader context, the Algerian terror attack played a significant role in causing France to review its accepted ‘military non-participation status’ in west Africa: a month later the French army and air force went into Mali in strength.



Part of the reason stemmed from the mindless brutality meted out by the rebels – many of them fundamentalist Salafists – towards those who did not conform to their medieval Islamic tenets. As a consequence, thousands of Mali civilians have been murdered.

Also, the ‘religious cleansing’ process has been severe: many Koranic treasures and ‘non-conformist’ mosques – some more than a 1,000 years old – were destroyed. It was almost comparable to what the Taliban did in Afghanistan two decades ago.

Mali has proved to be an extremely difficult war to cover. It remains one of the most under-reported conflicts of recent times. Most news reports and photos emanate from embedded French military personnel, but even that can be lopsided.

On the one hand, French news reports out of Bamako, the Mali capital, maintain that the rebels have been ousted from all major centres. That is followed by news that French forces had barely vacated their strongpoints in Kidal – one of the biggest Tuareg cities in the north – before government troops and their Chadian allies were unceremoniously driven out.

Taking their wounded with them, most of these soldiers beat a quick retreat to Gao, another northern city but firmly under the control of both the French Army and elements of the elite Regiment d’Hélicoptres de Combat. There were 1,500 Malian troops involved in the Kidal attack, armed with artillery and, for once, the French did not



Preparing for an operational dispatch to rebel positions near Timbuktu.

participate.

Government forces continued to trade heavy fire with the rebels and were forced to withdraw, the rebels occupying the military camp as well as the former French Foreign Legion fort that has a commanding position in the town, one of the biggest in the north.

Scores of Government troops were killed and 900 taken prisoner. Those who survived sought refuge at a UN post on the edge of town.

What quickly became manifest was that, while the Mali Army had undergone years of military training at the hands of American instructors, its forces quickly succumbed to rebel advances. Government forces were ill-disciplined and, at the first sign of a concerted onslaught by the rebels, they broke ranks.

Working under the auspices of its Europe-based African Command (AFRICOM), the Americans have been involved in 49 of 54 African countries in efforts to ‘rebuild these nations into stable partners with robust, capable militaries’. The idea stems from creating regional bulwarks that would be favourable to United States’ strategic interests in Africa.

Yet, says one American report “...after [the rebels invaded], Mali went from bulwark to basket-case.”

It wasn’t always like this. When the French military launched the Mali campaign in January last year, it took them three weeks to clear insurgent elements from most of the northern towns they had occupied, including Timbuktu, Gao, Kidal and others.

By the time the first phase was over it was estimated that about a third of a 2,000-strong al-Qaeda-linked force had been killed.

French air assets played a

major role throughout. Almost 20 helicopters were airlifted into Bamako from France in chartered Russian freighters. Four Rafale fighter jets were flown direct from France and fuelled en route by three KC-135 Stratotanker planes detached to Africa for this purpose.

They joined six Mirage 2000Ds, already part of Opération Epervier in Chad, to attack the rebel-held city of Gao, which, after the AQIM forces had fled, became France’s principal air and ground staging post in the region.

Meanwhile, several French Air Force transporters – C-130 and Transal C-160s – were sent south together with five Breguet Atlantique 11s that promptly initiated round-the-clock surveillance missions. Also involved were several American drones, though numbers remain classified.

The air force used Airbus A310s and A340s from 3/60 Estérel Transport squadron to shift ground forces, which peaked at 5,000 in Mali within six weeks.

Following the attack on Tigantourine, Washington has taken a significant, though as yet unspecified, role in this military struggle, which explains substantial American drone involvement in the conflict.

The first major onslaught launched by the French was Operation Panthère, which took place in the north-east of the country, adjacent to the Algerian frontier.

A difficult enterprise in lunar-like conditions on the edge of the Sahara, there were more than a thousand troops needing regular resupply from the air with C-130s dropping pallets by parachute. Some idea of its extent can be gauged from ground forces requiring 20 tonnes of water plus 1,400 combat ration packs each day.

When water did occasionally run short, troops had to resort to sunken wells, but even that was

By the time the first phase was over it was estimated that about a third of a 2,000-strong al-Qaeda-linked force had been killed.

Rearming one of the French Air Force 'Tigre' gunships for action against al-Qaeda elements in Mali.



France's Pumas might be showing their age but in Mali they are playing a vital security role.

problematic because they might have been poisoned.

Having used jets to 'treat the target' as it is appropriately phrased in Francophon military parlance – the area blasted by 250 kg bombs delivered by French Air Force Rafales – about 200 al-Qaeda members were killed within days.

Troops involved were all special forces (from the 1st Marine Infantry Parachute Regiment), marine commandos as well as air commandos. This combined element, which will continue to be used by France in future Sahel campaigns, has its own helicopter contingent, as well as a transport squadron.

For those on the ground, it has not been easy operating in a tough, baking environment, where temperatures fluctuate between 40 degrees Celsius in the heat of day to around 10 degrees after dark.

The average troop shoulders a 60kg pack that customarily includes six or seven water bottles and France's ubiquitous FAMAS assault rifle. Others march with the mini Mitrailleuse (Minimini) 5.56mm calibre machine-gun – a weapon that has proved inordinately versatile in a countryside dominated by rocky outcrops and boulders in every direction, the kind of terrain that also provides good cover for the rebels.

Much of the war now being fought 1,400km north of Bamako is restricted to a region sometimes known as the Adagh des Ifoghas, or mountains of the Ifoghas tribe. Remote, isolated and traditionally unfriendly, it encompasses a tribal dominion that has been at the core of every Tuareg rebellion since the country got its independence in 1960.

Annual rains fill up the gueltas (ponds) with drinking water for nomadic animal herds and insurgents and there are numerous caves that offer shelter from sand storms and helicopter gunships.

Continued
on Page 70

CONTINUED FROM PAGE 69

Also, the Algerian border is close and porous enough to keep supplies of food, diesel and ammunition flowing in – as long as corrupt local Mali officials can be bribed or forced to turn a blind eye.

It is also here that France's helicopter gunship squadrons have excelled. Both the EC-665 four-bladed, twin-engine Tigre and the fast-aging Gazelles have been useful adjuncts to ground operations, the former being advanced versions, fitted with more powerful engines and including high agility and glass cockpits.

That said, huge volumes of dust remain the constant companions of all the pilots involved – both on take-off and landing: air filters constantly need the attention of ground crews. Also, the terrain favours the enemy; pilots constantly talk of the inability of spotting rebel groups in extremely remote regions, where every rock provides cover.

This is one of the reasons why Puma back-up is a constant; very few operations in the north take place without these helicopters being within radio hailing distance, usually travelling in tandem.

Pumas also double as gunships, with heavy-calibre machine-guns on revolving mounts just inside the doors. If one considers the age of these veterans, they give valuable service.

On paper, Mali should have many more aircraft flying – fighters, helicopters as well as transports. But almost all of its aircraft date from the Soviet era, when Bamako proved to be a strong Cold War stalwart in support of Moscow. Very few of these machines are operational today, with almost all

fixed-wings grounded and only one Mi-24 operational.

Mali received two Hinds from Bulgaria in 2007, with one lost to enemy action in March 2013.

It was not long after Operation Serval was launched that France suffered its first casualty.

Lieutenant Damien Boiteux, a Gazelle pilot whose helicopter – one of two in the air at the time – came under heavy ground fire. The second was also hit and was forced to make an emergency landing some distance from the area of operation. The crew was picked up by a Puma soon afterwards and Lt Boiteux's body recovered by a special forces squad.



Shortly thereafter, French special forces were tasked to capture an airport in the north, where the runway had been blocked by two abandoned armoured vehicles. A reconnaissance flight indicated that there was 900metres of runway available for the C-130 to land.

With helicopter gunship top-cover, the crew went ahead with an 'assault landing' involving a squad of the air commandos and the Hercules putting down and reversing hard on the ground in the final stages. Several MX-10RC light-reconnaissance vehicles and men rolled out and the plane took off again: the entire operation – from touchdown to take-off – took less than three minutes.

It is worth mentioning that shortly before the French went into Mali in force, an American C-130 about to land at a forward operating base with

supplies for the local Mali garrison, was struck by rebel machine gun fire. Nobody was injured and the aircraft made it back to Bamako.

Possibly the most hazardous task that French forces have been called upon to undertake is routine weapons searches in areas adjacent to where the rebels have been driven off. Though substantial ordnance finds have been uncovered, the rebels tend to bury much of their assets without visible markings, which results in a lot of enemy hardware left behind.

A surprising development was caches of aerial bombs buried in soft sand in mountain hideouts that also yielded dozens of 12.7mm and 14.5mm anti-aircraft guns. One find revealed five 90kg and a dozen 155kg aerial bombs, all still in their original wooden packing cases. This hardware had also originally been looted from Libyan armouries and was brought thousands of kilometres across the Sahara in trucks.

The bombs were all buried together on the final day and destroyed with an explosive charge laid by engineers to create, what is referred to in the vernacular, as a fourneau.

One of the ironies of the present military campaign in Mali is that this war could have been cut short a couple of years ago.

In February 2012, a sizeable force of mercenaries negotiated an \$80 million deal with the former president of Mali to counter the Tuareg rebellion that threatened the Government. Apart from a moderate-sized ground force that would tackle the rebels on home turf, the aviation side

SOMMAIRE

La France sur tous les fronts au Mali

La France a mis en place un nouveau dispositif militaire pour contrer les groupes djihadistes dans ses anciennes colonies. Une enquête d'Al Venter.

Selon le ministre de la Défense Jean-Yves Le Drian, 3000 soldats français ont été déployés dans le cadre de l'opération Barkhane. Ils sont appuyés par six avions de combat, 20 hélicoptères et trois drones stationnés en permanence dans la capitale tchadienne N'Djamena. L'objectif est de contrer les extrémistes islamistes au Mali, au Tchad et au Niger.

Selon les recoupements d'information, cette guerre qui dure depuis plus de 18 mois, est la plus grande entreprise par la France en Afrique depuis la fin des hostilités en Algérie voici un demi siècle. La région où opèrent AQMI et ses alliés de façon très mobiles, couvre en effet plusieurs pays. Ils utilisent des armes pour la plupart dérobées dans les dépôts d'armes libyens après la chute du colonel Kadhafi.

Cette guerre est extrêmement difficile à couvrir d'un point de vue médiatique. La plupart des informations et des photos émanent du personnel militaire français basé sur place.

Les forces militaires françaises épaulées par plusieurs pays occidentaux, dont les Etats-Unis et la Grande-Bretagne, ont été efficaces. Les moyens aériens français ont joué un rôle important avec

l'intervention de près de 20 hélicoptères, quatre avions de combat Rafale et trois KC-135. Ils ont rejoint six Mirage 2000D déjà opérationnels dans le cadre de l'opération Epervier au Tchad. Ils ont permis d'attaquer la ville de Gao tenue par les rebelles. Plusieurs C-130, C-160 Transal ont été aussi dépêchés pour des missions de surveillance. Les hélicoptères de combat Pumas ont également montré leur efficacité et leur omniprésence lors des opérations dans la région nord.

Après qu'AQMI ait lancé une attaque de grande envergure contre une installation de gaz à Tigantourine, les Américains ont pris une part plus importante dans cette lutte armée, à travers notamment l'implication de leurs drones. Sous l'égide de l'AFRICOM, les Américains ont été impliqués dans 49 des 54 pays africains pour leur reconstruction et surtout pour qu'ils deviennent des partenaires stables en Afrique.

La présente campagne militaire au Mali aurait toutefois pu être évitée il y a quelques années. En février 2012, une force importante de mercenaires a négocié un accord de 80 millions de dollars avec

l'ancien président du Mali pour lutter contre la rébellion touareg qui menaçait le gouvernement. Le contrat pour l'acquisition de six Huey Cobras avait été signé quand le commandant Amadou Sanogo, à la tête d'une junte dissidente de l'armée malienne, lança une mutinerie pour renverser le gouvernement.

Il faut dire que cette insurrection a eu des impacts sur le trafic à l'aéroport Bamako-Sénou. Il est devenu à ce jour l'un des aéroports les plus fréquentés en Afrique de l'Ouest avec de nombreux vols militaires qui constituent désormais la majeure partie du trafic.

Plus d'une vingtaine de pays soutiennent, à leur façon, la France pour résoudre ce conflit dont le Luxembourg, la Lettonie et l'Estonie.

Les passagers qui se rendent aujourd'hui à Bamako trouveront une ville en ordre avec plusieurs gratte-ciel et des rues plus propres et mieux entretenues comme les agglomérations les plus modernes en Afrique.

Il y a un manifestement des progrès et une reprise des affaires, ce qui n'est pas surprenant car le Mali est désormais le troisième producteur d'or du continent africain.



included two Mi-24 helicopter gunships and four Mi-17 armed support helicopters.

The private military company (PMC) involved in this venture had originally been offered six Vietnam-era Huey Cobras by an unnamed country at \$1 million each, but it was decided to go for Ukrainian origin instead.

The deal for acquiring these aircraft had already been signed and money was about to change hands when Captain Amadou Sanogo, a low-key officer who headed a dissident junta in the Mali army, launched a mutiny that toppled the Bamako government.



Almost simultaneously, AQIM routed the Malian army and seized the north of the country. Curiously, though military assistance was offered by several African countries, the fledgling Sanogo regime rejected all offers.

He was initially opposed to French involvement in countering this revolt as well, but since almost \$1 billion was offered in military aid by western nations to 'revitalise' the Mali army, the captain, who liked to compare himself with the 'liberator' General de Gaulle, moderated his stance, though he has since been toppled and sits in jail waiting to be charged for sedition. C'est l'Afrique...

It is worth noting that Captain Sanogo was an American-trained army officer.

Still, much of what goes on in this remote west African state is vague. The extensive use of helicopter gunships by the French Air Force almost never features in routine press reports.

It is known, for instance, that apart from the death of Lt Boiteux, several French helicopters have been shot down by ground fire, none of it being made public. But locals in Bamako, Gao and Timbuktu have their own form of 'bush telegraph', and when there is a serious government or French loss, the markets buzz with the news. Somehow it always gets out.



Top left: A rare photo of a heavy machine gun mounted aboard a French Puma used against Mali rebels. Top right: Gazelle's used in combat against AQIM line up at Timbuktu Airport. Above: French troops boarding for Bamako.

Of interest here is that, unlike the original war in Algeria, French losses have been minimal. The Élysée Palace ordered its forces into action 18 months ago and, so far, there have been about a dozen French soldiers and airmen killed. That does not count the number of ethnic forces who have been killed by suicide bombers, one of the reasons why security in and around French air bases, while not watertight, is thorough.

The deployment of suicide bombers by rebel commanders is a fairly recent development in this part of Africa and there is no shortage of volunteers.

The weapon customarily consists of an explosive belt and is much feared by all the forces active against the rebels. The belt is unobtrusively worn around the midriff, is of modest thickness and liberally filled with ball bearings, together with chunks of steel.

There has barely been an operation in Mali where at least one of these belts has not been uncovered by the security forces; their use is widespread. The Chad Army, especially, has been regularly targeted by the rebels, in part because most Chadians, like AQIM, Tuareg or Ansar Dine, are Moslems and thus regarded as traitors to the Islamic revolutionary cause.

One of the anomalies of the on-going insurgency in Mali is that the Bamako-Senou Airport – about 15km south of the city – is now west Africa's busiest, with military flights making up the bulk of the movements.



There are more than two-dozen countries helping France counter this on-going insurgency – including lightweights like Luxembourg, Latvia and Estonia – all of whom are involved in security training programmes. As a result, there is a constant movement of aircraft.

On one morning recently, the arrival of a giant Royal Air Force C-17 Globemaster was followed by a Danish Air Force Hercules C-130, as well as an Ilyushin 'tilt-nose' transporter bringing in more heavy equipment for use against the rebels.

Visitors to Bamako today will find a well-ordered city with several skyscrapers going up and streets that are cleaner and better kept than any comparable conurbation in Africa.

The people strike you as active and industrious and just about everybody seem to be getting into the act, which means that there is clearly a good level of progress and money to be made. This is not surprising since Mali is now Africa's third largest gold producer.

The Textron AirLand Scorpion has re-written the aircraft development rulebook, having gone from initial development in 2012 to flying across the Atlantic to make its Farnborough debut in July. Now its manufacturer sees Africa as a potential lead market. Jamie Hunter reports.

The Scorpion that won't sting on price

Given the impressive development timeline for Textron AirLand's Scorpion intelligence, surveillance and reconnaissance (ISR)/strike jet, it came as no surprise that the aircraft easily completed a seven-stage 4,700 mile journey from Wichita, Kansas, to take part in the UK's Royal International Air Tattoo and the Farnborough International Air Show in July.

The Scorpion, which started development in early 2012, only made its maiden flight on December 12 last year.

To date it has notched up some 130 hours of flight-testing at Textron's facility in Wichita.

The aircraft was deployed, with a small support team, across the Atlantic, to make it one of the highlights of the two UK events.

Textron is rapidly expanding its aviation portfolio and has developed the impressive Scorpion in short order as a major step in the company's development of an all-composite aircraft.

Indeed, according to Textron chairman, Scott Donnelly, the Scorpion features almost no metal in its construction.



The new jet was developed by a joint venture of Textron and AirLand Enterprises, funded internally without any government support. Scorpion demonstrates the ability to offer strong capability at a reduced cost by using proven, off-the-shelf, commercial aviation parts and best practices, says the manufacturer.

Donnelly sees a huge gap in the market for ISR aircraft that fit in the niche between turboprops, like the MC-12, and the higher end and costly fast jets.

Prototype fielding and operational test manager, Andy Vaughan, said: "There's nothing in that gap that has enough power to drive sensors and have weapons on board. What we have is a strike aircraft that can do ISR, maritime patrol or border security, as well as be an

What we have is a strike aircraft that can do ISR, maritime patrol or border security, as well as be an advanced trainer."

ANDY VAUGHAN

advanced trainer." Vaughan calls the Scorpion something of a "Swiss army knife aircraft".

The design and configuration of the Scorpion has been created with the mission firmly in mind. The Scorpion's 6,000lbs of fuel can be augmented with an internal fuel bladder in the aircraft's payload bay, or with external drop tanks. An aerial refuelling probe is also in the test plan, allowing for missions well over five hours, but this may be later down the line as such aerial trials are the most costly, and cost reduction is right near the top of the Scorpion 'must have' list.

The aircraft has been developed as a military project, but with a commercial programme mind-set, to allow it to be agile and responsive to potential customer requirements as they emerge.

The modular design of the aircraft is something that Textron AirLand is keen to outline; the cockpit, for example, is removable at the bulkhead.

The two-seat design is aimed at both mission roles and training applications. "Non-traditional ISR (NTISR) is a challenge for single-seat aircraft, [so] we can have a dedicated backseat combat systems operator (CSO)," remarked Vaughan.

The twin-canted tails are modular and easily removed.

The clean-sheet design all-composite straight wings are configured for external stores, with the prototype aircraft on show at Farnborough featuring six hardpoints loaded with a wide variety of stores, from the Raytheon Paveway IV small

diameter bomb, to the new Textron G-CLAW clean area munition.

These wings can still be removed in around an hour and their long, straight design is all about ISR endurance. "We have long loiter at slow speeds," said Vaughan, citing typical performance of around 150-200kts at 15-20,000ft.

With 4,000lbs of thrust apiece, the engines give the Scorpion the same thrust-to-weight ratio as the A-10. It has a maximum speed of around 450kts and has flown at altitudes up to 30,000ft. Vaughan elaborated: "The aircraft is a little under 12,000lbs and you get 9,300lbs of payload – that means fuel, sensors and weapons."

The Scorpion has dual Honeywell TFE731-40AR engines and, with dual generators on each, this provides an abundance of extra power to drive multiple sensors.



Vaughan continued: "Really it's about the Scorpion's internal payload bay; that is the quintessential piece of the aircraft.

Synthetic aperture radar/ground moving target indicator (SAR/GMTI), surface search radar, electro-optical/infrared (EO/IR), signals intelligence (SIGINT) packages – the sky's the limit.

"We can accommodate 3,000lbs of modular ISR equipment out of the slipstream of the aircraft – it's not unreasonable to think someone might buy the aircraft and never put anything on the wings."

Weapons can also be accommodated internally. "We have called it a payload bay," said Vaughan, "but in the back is a segment that is taller and we are looking at installing common vertical launch tubes."

Textron AirLand is targeting under \$20 million for the standard aircraft with a 15-inch EO/IR turret and weather radar installed. It also says that the Scorpion has an operating cost of just \$3,000 per hour, a fraction of running an F-16.

"We have tried to keep costs down," said

The aircraft has been developed as a military project, but with a commercial programme mind-set.



The Scorpion: something of a "Swiss army knife aircraft".

Vaughan, bearing in mind the current financial climate affecting many air forces. "We do that with Citation jet parts.

"We are already competing a second engine to keep costs down," added Vaughan. The Pratt & Whitney PW-545C is understood to be a possibility in case customers should have a preference.

The manufacturer is keenly aware that the T-6 Texan II is also in its portfolio now, having acquired Beechcraft late last year. Vaughan said: "We don't directly compete with the AT-6 as that is a dedicated strike platform with one sensor."

One of the criticisms pitched at light attack types, such as the AT-6, has been their robustness to operate in contested environments. Therefore, electronic warfare and self-protection systems are likely to be on the cards for the Scorpion, if required by the customer. "We are only going to put in what customers want to keep cost down," said Vaughan.

Textron AirLand is pitching the Scorpion as being exportable from day one, and aiming at potential customers in regions like Africa, the Middle East and Asia. Vaughan said Textron was talking to anyone currently flying an A-37

Dragonfly or an OV-10 Bronco. The aircraft could also fill the slot as an F-5E Tiger II replacement.

Vaughan commented: "We are talking to a couple of people who make small active electronically scanned array (AESA) radars and we are in discussion with a potential customer who wants that capability." A small AESA radar would potentially provide a fire control capability for the air-to-air role, should a customer require it.

Textron AirLand is also bearing in mind its home market, despite assertions from senior US Air Force officials that they must protect funding for their big ticket programmes such as the F-35 Lighting II. Vaughan said: "We think there is a lot of potential for the Air National Guard. Why not use a lower-cost platform and not burn the hours up [on expensive fighter types]."



The Scorpion's avionics are fully certified and federated, as well as being ruggedised to meet military specifications.

Textron AirLand has been keen to avoid costly operational flight program (OFP)-based systems, such as those in current F-15 and F-16 programs that require users to return to the OEM for upgrades.

Textron AirLand is "looking closely" at the US Air Force's T-X trainer programme to replace the venerable T-38 Talon, with Textron's TRU Simulation+ training business also heavily involved in the simulation market.

Clearly, should it throw its hat into the ring for T-X, it would point to the swift research and development work it has completed to prove that Textron can move fast to meet requirements and keep costs down using proven technology rather than what it calls a "high-end solution".

It would also need to look at meeting all T-X key performance parameters (KPPs), as set out by the US Air Force. For example, it is currently looking at a probe for in-flight refuelling, and that may need to be revised to encompass a boom refuelling capability for dry hook-ups, should T-X demand it.

Sensor and then weapons testing is planned later this year.

WELCOME TO THE FUTURE
OF ANGOLAN AVIATION
THE ONLY TERMINAL/FBO IN ANGOLA



- BASIC HANDLING
- CREWS TRANSPORTATION
- HOTEL RESERVATIONS
- PASSENGER ASSISTANCE
- AIRCRAFT SALES
- HANDLING FBO

→→ BESTFLY

Aeroporto 4 de Fevereiro | Terminal Executivo

+244 924 881 000 | +244 925 928 831

apereira@BestFly.aero | npereira@BestFly.aero | <http://www.bestfly.aero/>



PILATUS JOINS THE JET SET

When Swiss manufacturer Pilatus rolled out its PC-24 'super versatile' business jet on August 1 – the country's national day – Ian Sheppard was there to witness the pomp.

The PC-24 launch was a glittering ceremony where half of Switzerland (well, 20,000) came to watch 24 horses pull the prototype PC-24 across the runway at Stans, Pilatus' home base for 75 years.

The HQ nestles at the foot of high Alpine mountains and, with an air display by Pilatus aircraft past and present, it was an occasion not to be missed.

And why not celebrate a manufacturer coming of age, with its first jet.

It was only 15 months ago that Pilatus had launched the model, which is expected to make its first flight early next year and gain European and US certification in early 2017.



It is the first business jet to be aimed specifically at operations in regions such as Africa – which explains why the Royal Australian Flying Doctor Service was the first announced customer.

By the end of May's European Business Aviation Convention & Exhibition (EBACE) in Geneva, Pilatus had 84 firm orders logged – accounting for all projected delivery positions between early 2017 and the end of 2019.

The company held off taking more orders until after the first flight. All orders are backed by binding contracts and non-refundable deposits, the manufacturer said.

The company has priced the new model

Continued
on Page 76



Pilatus chairman & CEO Oscar Schwenk wears traditional dress at the PC-24 roll-out ceremony.



CONTINUED FROM PAGE 75

at \$8.9 million (2017 economic values), billing it as constituting a new ‘super versatile’ category in the business aviation marketplace.

It claims the aircraft combines the flexibility of a turboprop with the cabin size of a midsized jet and the performance of a light jet. The aircraft’s primary fuselage and wing structure is made from aluminium.

The flat-floor cabin seats six-eight passengers. Range with four passengers is 1,950nm (NBAA IFR reserves, 100nm alternate) and high-speed cruise speed is 425kts TAS (approx Mach 0.7) at FL300.



The aircraft’s cabin dimensions are superior to those of Cessna’s midsized Citation XLS+ in most respects: 67ins wide versus 66ins; 23ft long versus 18.5ft; 501 cubic feet volume versus 461 cubic feet. Cabin height is seven inches shorter than the XLS+, but the Citation has a dropped floor.

Extra versatility comes from the PC-24’s large cargo door, reminiscent of Pilatus’ popular PC-12 (in fact, all the initial orders came from existing PC-12 customers).

With dimensions of 4ft 3ins high and 4ft 1in wide, it can accommodate standard-size cargo pallets. Seats can be quickly removed to increase the size of the baggage compartment from 51 cubic feet to 90 cubic feet.

The PC-24 can seat up to 10 passengers in commuter configuration. In an executive format, the cabin features an externally serviced lavatory



The PC-24 was rolled out in front of 20,000 people, with the Swiss public being invited along with 2,000 VIPs in a grandstand. There was a flying display before the aircraft was rolled across the runway at Pilatus’s Stans Airport base.

in either fore or aft positions, with an optional galley available.

Another key factor is its ability to operate from short and unprepared runways (2,690ft balanced field length at maximum take-off weight (MTOW), 4,430ft in ‘hot and high’ conditions). Intended for Part 23 certification, the PC-24 can be flown by a single pilot.

With its two Williams International FJ44-4A engines, the aircraft will be able to climb to its maximum altitude of 45,000ft in less than 30 minutes. MTOW is 17,650lbs and maximum payload is 2,500lbs.

Key to the PC-24’s short-field performance is a unique design of its two 3,435lb-thrust engines. An additional 5% power is available via a new automatic thrust reserve feature, according to engine manufacturer Williams International.

The turboprops also employ the company’s ‘Exact’ passive thrust-vectoring nozzle technology, which uses the Coandă effect to provide a three-degree vectored thrust during high-power operations.

An anti-ice and noise-suppressing inlet is supplied by Williams, as is an integral pre-cooler “to condition engine bleed air and reduce drag losses”.

The PC-24 doesn’t need an auxiliary power unit because the FJ44s use Williams’ quiet power mode to provide ground power efficiently and with little noise. The engine has a 5,000-hour time between overhaul (TBO) and hot-section interval of 2,500 hours.



The PC-24 avionics consists of a Honeywell Primus Apex flight deck, branded for the PC-24 as the Pilatus advanced cockpit environment. The version includes four 12in displays, Honeywell SmartView synthetic vision, the TCAS II alert and collision avoidance system, inertial reference system, wide area augmentation system (WAAS) localiser performance with vertical guidance (LPV) approaches, as well as graphical flight planning on the moving map display.

The cockpit will also feature the integrated navigation data service (INDS) data manager for the Apple iPad. The INDS, developed by Jeppesen and Honeywell, simplifies the Honeywell Apex database update process, allowing wireless updates through the iPad.



This being the aviation industry,
you'd think more companies would share our

15,000

meter view.

Up here, the air and the competition are rare. Our birds-eye view of the aircraft brokerage market comes from our unmatched combination of more than 50 years' experience and a large, global network of partners and customers. That means you have more buy, sell and trade options. Better perspective on market trends. And worldwide connections that put a tailwind on your transaction. Call us and see. You'll love the view.

www.jetcraft.com | info@jetcraft.com | Africa +27 83 455 5889

JETCRAFT



AIRBUS BOEING BOMBARDIER CESSNA DASSAULT EMBRAER GULFSTREAM HAWKER

EXCLUSIVE AIRCRAFT FOR SALE

- | | | |
|-------------------------|------------------------|-----------------------|
| 2010 Agusta A109 Power | 2002 Falcon 900EX | 2011 Global XRS |
| 2002 Airbus A320VIP | 2006 Falcon 900EX EASy | 2006 Gulfstream G450 |
| 2007 Boeing BBJ | 2010 Falcon 900LX | 2010 Gulfstream G550 |
| 2007 Challenger 300 | 2009 Global 5000 | 1997 Gulfstream GIVSP |
| 2009 Challenger 605 | 2012 Global 5000 | 1991 Hawker 1000B |
| 2008 Challenger 850 | 2012 Global 6000 | 2007 Lear 45XR |
| 2001 CRJ 200LR | 2015 Global 6000 | 2004 Lear 60SE |
| 2003 Falcon 2000EX | 2005 Global Express | Q4 2015 Legacy 500 |
| 2007 Falcon 2000EX EASy | 2006 Global XRS | 2007 Legacy 600 |
| 2004 Falcon 900C | 2010 Global XRS | 2008 Legacy 600 |

DOWNLOAD THE JETCRAFT APP



- Search aircraft listings
- Sort listings by manufacturer
- Download aircraft brochures
- Read recent Jetcraft news
- View Jetcraft's upcoming event schedule
- Receive notifications about new listings



Scan this QR code to
download to your Apple
or Android device.

TWO WAYS
TO CONQUER THE WORLD.



Now you have two choices for superior, ultra-long-range capability. The 5,950 nm Falcon 7X—the fastest selling Falcon ever (and with good reason). Or the new, 6,450 nm Falcon 8X, destined to become a favorite of world travelers. Both have the awe-inspiring ability to fly long distances from short and challenging runways such as Aspen and London City. The 8X is more than three feet longer, with over 30 cabin layouts. *Fly far. Fly in comfort. Achieve more.*

Falcon 7X / 8X

WWW.DASSAULTFALCON.COM | FRANCE: +33 1 47 11 88 68 | USA: +1 201 541 4600

**DASSAULT
FALCON**

ENGINEERED WITH PASSION

Denver-based news anchor
Amelia Rose Earhart.
Below: Amelia Earhart in 1932.



Amelia's real heart

*Two famous
Amelias have
done wonders
for women in
aviation.*

Liz Moscrop
*admires their
pluck.*

**Amelia believed
that, 'adventure is
worthwhile in
itself', and it is
that type of
attitude that
spurs us to seek
the unknown."**

AMELIA ROSE EARHART

One of my favourite phobias is that girls, especially those whose tastes aren't routine, often don't get a fair break.

Not my words – they are those of Amelia Mary Earhart, the renowned aviatrix, who disappeared over the South Pacific in 1937 during an attempt at flying around the world in a twin engine Lockheed Electra.

Her legacy lives on, epitomised in a young woman who bears her name.

Denver-based news anchor Amelia Rose Earhart set off this summer to chase her own dream. By the time *Arabian Aerospace* goes to press she should have flown approximately 24,300 nautical miles in a Pilatus PC-12 NG, completing the round-the-world flight that her namesake never got to finish.

During her journey, she will have awarded 10 flight scholarships to young women in the US through her other passion, the "Fly With Amelia Foundation," a charity she set up. Once she has finished her trip, she will be the youngest woman to have circumnavigated the globe in a single-engine aircraft. Sponsors included Pilatus, Honeywell, Inmarsat and Satcom 1, as well as BBA Aviation companies Signature Flight Support and Dallas Airmotive.

She explained: "By recreating and symbolically completing Amelia Mary Earhart's flight around the world, I hope to develop an even deeper connection to my namesake. Amelia believed that, 'adventure is worthwhile in itself', and it is that type of attitude that spurs us to seek the unknown."

Pilatus demonstrator pilot Shane Jordan was her companion en route, and no stop was planned for Howland Island, Amelia Mary's destination when she disappeared. However, Amelia Rose was set to overfly the point from which the last transmission from her namesake was heard, and announce the names of the 10 scholarship winners.

In contrast to the silence for most of the first world trek, Amelia Rose's was set to be cocooned in almost constant connectivity with fans following her progress all the way with flight tracking, plus Facebook and Twitter both during flight and on stop-overs.

However, all the technology in the world does not compensate for the real dangers present with weather patterns in the tropics. Airlines train their professional pilots well on how to navigate the intertropical convergence zone (ITCZ), which Amelia Rose and Shane had to encounter.

One of key threats to aircraft is that, despite today's sophisticated technology, data for this large mass of unstable air is difficult to find. There are only a few weather balloon stations in the ITCZ, and very few surface weather stations transmitting their observations.

Because most of the ITCZ is over the oceans, surface weather information is pretty much limited to periodic reports from passing ships. There is virtually no radar coverage, so pilots have to rely on on-board radar to locate active storm cells. A massive thunderstorm can destroy even a large commercial jet.

Such a trip requires bravery, and passion tempered with courage is evidently the guiding

force behind both women's historic journeys. The first Amelia said: "The most difficult thing is the decision to act. The rest is merely tenacity. The fears are paper tigers. You can do anything you decide to do."

Amelia Rose echoed her predecessor's spirit, saying: "Whenever we learn something new, we must first give into the fact that we will not be as fearless as we may like. As long as you put yourself in the environment to learn, to be around what it is you want to be and do, you get the benefit of momentum. You will be forced to grow your own wings."

Judging by the female response to both pilots, each has done wonders for attracting women to aviation.





The African Business Aviation Association (AfBAA) held its second annual symposium in Johannesburg in September. Over the next four pages, Marcelle Nethersole reports from the event.

PILLAR TALK...

AfBAA founding chairman Tarek Ragheb has laid down a four-pillar approach to the next stage of the association's development, with essential targets backed by the head of South Africa's civil aviation authority (SACAA).

Poppy Khoza, director of the SACAA, gave the opening address at the AfBAA symposium and said it was essential that African governments should not underestimate the impact business aviation and commercial air transport make on development.

While backing calls for more liberal approach to air freedom, Khoza said: "Safety and security must not be a stumbling block to growth – but equally growth cannot be at the cost of safety and security."

Opening the two-day conference that was chaired by *African Aerospace* editor-in-chief Alan Peaford, Ragheb said AfBAA needed to focus on four key areas: Finance, safety and training, advocacy, and data collection and analysis.

He said the 2015 focus would be on safety and training. "It's about changing



"Safety and security must not be a stumbling block to growth."

POPPY KHOZA

mind-sets," he added.

AfBAA worked with Argus to provide a free safety management system (SMS) workshop to allow members to understand what was needed. "Training must never stop," Ragheb said. "I hope to see AfBAA develop sponsorship or a foundation to help train young people in a way that is adapted to meet the realities of Africa."

Khoza said that events like the AfBAA symposium would help "unlock the barriers to growth" by challenging issues over access to finance, protectionism, training and culture."

Ragheb also called on members to help engage with their governments and civil aviation authorities to raise the profile of business aviation. "We need them to understand that business aviation operations are not in competition with the airlines," he said.

Operators had raised the particular problems of over-flight and landing permits and unnecessary bureaucracy with documentation. "If we could get governments to work together regionally or in neighbouring clusters it would help bring change," Ragheb concluded.



"Business aviation operations are not in competition with the airlines."

TAREK RAGHEB

Architects of Charter

Luxury Air Charter Specialists

Is it our ultra modern aircraft with luxury interiors and stylish amenities? Maybe it's the impeccable service our clients enjoy onboard? Or perhaps it's knowing you can call us anytime and we'll go out of our way to ensure your flight is exactly how you want it.

Whatever it is our clients enjoy about flying with Vertis Aviation, we're committed to continuously providing an outstanding bespoke service using the most luxurious aircraft available. When it comes to luxury air charter, we've set the bar high.



Airbus Corporate Jet



Global Express



Global 6000



Dassault Falcon 7X



Gulfstream G650

Switzerland +41 (0) 41 727 2288
London +44 (0) 20 7100 6028
Dubai +971 50 458 5969

Email info@vertisaviation.com
www.vertisaviation.com

VA
Vertis Aviation

Why Europe and Africa must do more business together

One symposium delegate, whose business operates in both Europe and Africa, has called for greater collaboration between the two continents.

Austrian aircraft management company, Avcon Jet, is already established in South Africa after receiving an air operator's certificate (AOC) early last year.

Director of African operations, Juan Stoltz, said his company would like to see Europe and Africa collaborating more, creating additional business.

"We have recently established a training school and we are looking to set it up so European students can come out to South Africa and experience something new, while knowing that everything is arranged for them from a European point of view," Stoltz said.

"After doing a South African validation to be legally able to fly a ZS aircraft, the students will enjoy a safari and continue the flying experience to Botswana and Namibia, for example.

"The training in South Africa is of a very high standard. There are many misconceptions about aviation in Africa and we want to get rid of them. The best way is from a direct European perspective and that will bring comfort to the client straight away. We are bringing them across and showing customers that the standards are the same," said Stoltz.



"There are many misconceptions about aviation in Africa and we want to get rid of them."

JUAN STOLTZ

The company has, so far, concentrated on South Africa, crediting the country's stable economy and political state for the decision. However, it is eyeing up other possibilities.

Stoltz explained: "Nigeria is one country we will look at, as its economy is growing on a daily basis, but as a South African, I know the political state and the problems that can occur here. Going blind into Nigeria you won't always know the smaller problems – the political or the legal state in a country – to immediately be able to implement your full business plan."

The company operates aircraft ranging from light and medium-size jets through to large cabin/long-range jets. Types include the CJ2, Learjet, Hawkers and a string of Gulfstream aircraft, such as the G150, G200, G550 and the newly added G650.

Avcon Jet has recently joined AfBAA and Stoltz said: "This symposium was very interesting – especially learning the views of other operators. I think we all have the same difficulties and challenges, so it would be good if we can all work with AfBAA to try and get rid of some of these.

"There is certainly a lack of training in areas like air traffic control, and a lack of radar for aircraft coming into the continent. This can be very hard in the more remote airports, where there are limited facilities, and it can be a problem with maintenance. Ground handling can also be a problem," he concluded.

SAFETY COMMITTEE TO LAY FOUNDATION FOR SMS



Nick Fadugba.

AfBAA is to set up a safety committee with a plan to develop a base model for a safety management system (SMS).

The decision followed a lively panel discussion where Mike Litson, CEO of Litson & Associates, argued that too many of the SMS processes were too complicated.

"We need to see a simplified version produced," he said. "People are already doing things that are part of a SMS without realising it."

Another panellist, GCS' Michael Gruniger, warned that any model developed by AfBAA must remain flexible. "It has to work for the individual organisation," he said.

Former African Airline Association (AFRAA) secretary general Nick Fadugba, who is CEO of African Aviation Services, said the civil aviation authorities needed to be educated about business aviation to avoid "unwieldy" regulations that were designed for airlines.

Fadugba argued that AfBAA should encourage members to adopt the IS-BAO international safety system as a standard.



Mike Litson.

Permit support through Africa

Count on the Kilimanjaro Aviation Logistics Centre.

Are you looking for a single, local resource to help you stay on top of Africa's complex operating environment and manage your stakeholders' expectations along the way? With our multilingual, Tanzania-based team, you can:

- Arrange landing and overflight permits, clearances, slots and navigation fee charges – 24/7
- Navigate aviation regulations country-by-country in compliance with international laws
- Access on-the-ground expertise to help you overcome the unforeseen

PROUD FOUNDING MEMBER OF



To arrange your permits today contact our Operations Team to learn more.
Phone: +255 786 055 407 • africanflightpermit@univ-wea.com • africanflightpermit.com

KILIMANJARO AVIATION
LOGISTICS CENTRE

A Universal® Affiliate



A THANK YOU TO THE CUSTOMERS & PARTNERS WHO HAVE MADE US WHAT WE ARE TODAY.

It has been 25 years since we at Jet Support Services, Inc. opened our doors and became the business aviation industry's first independent provider of hourly cost maintenance programs. Since that day, we have enrolled more than 10,000 engines, airframes and APUs on our broad offering of programs. Today, JSSI enhances resale value and provides cost predictability and world class service to owners and operators of over 340 makes and models of business jets, turboprops and helicopters. As we continue to expand our business, it is important for us not to lose sight of those who have supported us along the way and made our 25-year anniversary possible.

We want to thank Boise Cascade for being the initial customer to take that leap of faith to enroll on a JSSI program. It required foresight, an open mind and the willingness to take a chance on a new concept and a young company. We thank you, our loyal customers, who have entrusted us with your aircraft over the years. Thank you to the OEMs, who have worked hand-in-hand with us as we developed innovative programs like Tip-To-Tail[®], the industry's only single-source maintenance plan. And thank you to all of the maintenance providers that have worked alongside our technical advisors to deliver outstanding service.

All of this begs the question, "Where do we go from here?" Stay with us throughout this, our 25th anniversary year, and we'll share some of our future plans. Because, thanks to you, even after 25 years, we're just getting started.

A handwritten signature in black ink, appearing to read 'Neil W. Book'.

Neil W. Book,
President & CEO, JSSI

Funding boost for purchase of American business aircraft

African business aircraft owners and operators are likely to be the beneficiaries of a new source of funding when they buy American-built aircraft.

As well as aircraft from the traditional US manufacturers such as Cessna, Beechcraft and Boeing, the funding from the US Government's Export-Import Bank (Ex-Im) also includes Learjet, light Embraer jets built at the Brazilian company's Florida plant, and the new HondaJet from the Japanese-owned business building the aircraft in North Carolina.

"For us it is about American jobs – but it is also about creating jobs in Africa," said Robert Morin, senior vice president Ex-Im.

Morin was guest of honour at the AfBAA symposium and he came bearing good news.



He told delegates that, with Africa being a special focus of the US Congress, Ex-Im had been tasked with arranging \$1 billion in finance over three years ending this year. "We met the goal a year early and the funding target was doubled to \$2 billion," he said.

Ex-Im has a \$50 billion aviation portfolio and has helped carriers such as Ethiopian Airlines and Kenyan Airways purchase the latest Boeing aircraft. "But now we want to see greater involvement in business aircraft," Morin said.

"We have financed single aircraft, such as the Cessna Caravan, as well as bigger aircraft like Gulfstreams and Boeing jets," he said. "The business and general aviation deals will pick up dramatically," he added.

The bank has appointed two advisors to support its efforts in Africa: Air Finance and Investec.

"These two organisations both have extensive knowledge of the market and will carry out the due diligence, the credit checks and the know-your-client (KYC) processes and prepare the case to the bank," Morin explained.



He said the bank could plug the gap where there had been misperceptions about the level of risk.

"There's an old saying that 'if the credit committee can't find the country on the map then you can't get the money,' but we have looked beyond that," he said.

"Over the last two decades we have arranged more than \$100 billion of finance to aviation around the world with \$7 billion of that in Africa, and have lost just \$4 million in that time on one single deal.

"I'll save you doing the maths – that is four one-thousandths of a single percent. That is pretty good business."



"Business aviation operations are not in competition with the airlines."

ROBERT MORIN



Finance issues are a myth, says Shanks

Suggestions that finance for the acquisition of aircraft in Africa is impossible to get is a myth, according to Graeme Shanks (left) vice president of business aircraft finance sales for CIT.

Speaking at the finance panel session at the symposium, Shanks said many deals were being done across Africa for both commercial and business aviation.

Former Embraer executive Colin Steven also outlined how leasing deals could offer beneficial finance to business aircraft owners in Africa.

Introducing the new Mauritius-based Vueling Tayara leasing company, Steven said many owners would find that leasing could prove an attractive alternative to traditional finance arrangements.

Midsized set to hit the big time in Africa

Midsized cabin jets could be approaching a boom time in Africa, according to new research from Jetnet IQ.

Presenting at the symposium, the company's Rolland Vincent said there were clear differences between Africa and other regions in future fleet requirements.

He believed the continent's buyers were set to fill the gap that has seen Africa have fewer business aircraft compared to other developing economies in the world.

Africa represents just 3.7% of the world business jet and turboprop market and its midsized cabin sector represented more than a third of all aircraft – a significantly greater share than typically found elsewhere in the world.

According to the figures produced by Jetnet IQ, Africa has 1,265 business aircraft in operation with 804 of them being turboprops. Of the 461 jets, 147 are midsized or super-midsized models and 121 are light or superlight.



The largest fleet is in South Africa, with 444 aircraft. Kenya has 134, Nigeria 87, Tanzania 80, and Angola 63.

In the two fastest growing GDPs in 2014 – the Democratic Republic of Congo and Ethiopia – there are 24 and 10 business aircraft respectively.

With six of the top 10 fastest growing economies in the world and the past decade having matched Asia Pacific and the former Soviet Union with an

annual GDP growth of 4.7%, Africa has lagged behind with the purchase of business jets.

With just 3.3% annual fleet growth over the 10 years, the continent is way behind Asia with 9% and the former Soviet Union with 15.1%. Africa's ratio of fleet to GDP annual growth was 0.71 against a world average of 1.7.

"That could be good news," said Vincent. "There are really exciting prospects here."

Jetnet's research, carried out with 170 owners and operators across Africa every 90 days, showed that African owners and operators were much more likely to plan to buy new aircraft within the next year than those in the world's largest market, North America.

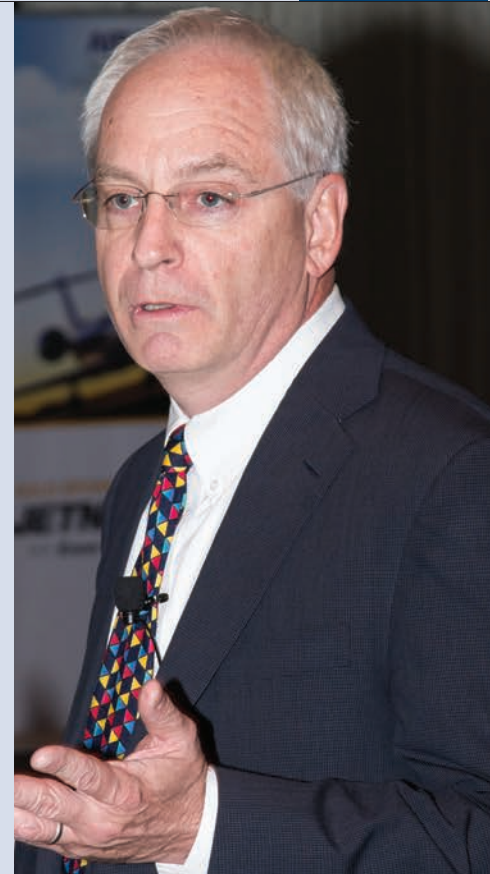


Some 31.8% of respondents in Africa said they were likely to buy new aircraft compared to less than 20% in North America and 22% in the rest of the world.

The criteria for purchase is also different in Africa, where the need for range is seen as being less important but where reliability, cabin size and runway performance scored significantly higher than the rest of the world.

African respondents were also less concerned about public opinion but were also more likely to have trouble selling their current aircraft than owners elsewhere.

AfBAA is working with Jetnet and encouraging African owners and operators to participate in a major survey that will help the association meet its goals of improving knowledge about the industry in Africa.



The continent's buyers are set to fill the gap that has seen Africa have fewer business aircraft compared to other developing economies in the world.

ROLLAND VINCENT



"Our main problem in the region is availability of large aircraft."

JEFFREY EMMENIS

GETTING EMOTIONAL COULD BE A GOOD THING

Swiss-owned Vertis Aviation wants AfBAA to help promote the emotional side of business aviation as well as its focus on operations.

"I think AfBAA needs to look at promoting business aviation from the owners' side," said Vertis partner Jeffrey Emmenis. "It's a status thing. We talk a lot about the statistics in Africa, about price and safety, but one thing that was not discussed at the symposium is emotion. For owners, with a lot of these planes they buy, they have an emotional attachment – they have become successful and want to show their friends they have money and assets. Buyers also use their aircraft for leisure trips, as well as for business."

The Swiss company is currently working with Fireblade Aviation, the new company owned by the Oppenheimer family, at its new FBO at OR Tambo International Airport in Johannesburg.

Vertis Aviation conducted exclusive charter sales for the Global 6000.

"This addition marks the beginning of our expansion strategy in Africa, which we believe offers great potential for further development. We're already seeing a high demand for charters between Brazil and Angola, Lagos and Johannesburg, and London, and anticipate the route map will just become more complex as the continent requirements expand," Emmenis said.

"We are also working with a number of aircraft owners to take their aircraft and put them on the global market, as there is a lot of traffic from Europe to South Africa, Angola, and Nigeria. We have an office in Dubai and we can see the growth of Middle Eastern business coming to Johannesburg, as well as Cape Town.

"We also have offices in London and Zurich, and eventually will have one in Johannesburg in order to give our aircraft

owners a really big platform on which to launch their aircraft and charter them out, as chartering is a big element to help them off-set the costs of ownership and give them some return on their investment."

The Vertis fleet includes Bombardier Global 6000, Airbus A319 corporate jets, Bombardier Global XRS aircraft, Bombardier Global Express, and Dassault Falcon 7X. Emmenis said that African customers seem to favour the Global family. He warned, though, that Africa suffers from a lack of availability of large aircraft.

"I'd say our main problem in the region is availability of large aircraft. We send our Global Express down from Europe empty a lot of the time to pick up passengers in, say, Johannesburg and fly them within Africa, as there is nothing based out here. The way to change that is to get more aircraft in southern Africa so we can spur on sales."

SETTING THE STANDARD FOR SMART BUSINESS



You didn't get to where you are by compromising, and neither did Bell Helicopter. Impeccable craftsmanship, modern amenities and spacious seating highlight the Bell 429's sleek, elegant design. With impressive range and speed, plus a smooth and quiet ride, the Bell 429 sets the standard for smart business.

Bell Helicopter[®]
A Textron Company



Mayotte, département français situé au cœur du canal du Mozambique, s'était préparé le 27 juillet dernier pour l'inauguration de son nouveau terminal aéroportuaire. Or, le président français avait été contraint d'annuler sa tournée dans l'océan Indien en raison du crash du vol MH17 d'Air Algérie. Il devait également participer à la réunion des chefs d'états de la COI à Moroni et se rendre à La Réunion.

L'aéroport de Mayotte est avant tout une véritable porte d'entrée sur l'île. Son trafic a doublé en dix ans. Il a accueilli plus de 325 000 passagers en 2013 contre un peu plus de 150 000 passagers en 2003.

L'aéroport de Mayotte connaît chaque année une forte croissance et le nouveau terminal permettra enfin d'ouvrir l'île au monde extérieur et surtout de répondre aux besoins de sa population.



La nouvelle aérogare est maintenant dimensionnée pour accueillir 600 000 passagers par an, avec une possibilité d'extension future permettant d'atteindre jusqu'à 1,2 millions de passagers. L'aéroport dispose d'une piste de 1930 mètres pouvant désormais accueillir les avions de type Airbus A330 et Boeing 777. Cela place Mayotte à huit heures de vol direct depuis Paris.

La nouvelle aérogare a été mise en service le 14 mai juste avant la haute saison touristique.

« Nous avons ainsi basculé de deux anciens terminaux (un pour le départ et un pour l'arrivée) à un nouveau terminal unique de 7800m² », rappelle Daniel Lefebvre directeur de l'aéroport de Mayotte. « Nous nous félicitons de la mise en service de ce nouvel outil structurant pour Mayotte qui permet de recevoir les passagers avec un meilleur niveau de qualité. »

Les travaux ont été pilotés par le groupe SNC-Lavalin qui est également le gérant de l'aéroport (voir encadré). Cela englobe la réalisation de la nouvelle aérogare, la construction d'infrastructures aéronautiques et

Inauguration présidentielle pour le terminal de Mayotte

L'aéroport de Mayotte a inauguré le 23 août dernier son nouveau terminal passager en présence du président de la République française, François Hollande. Vincent Chappard s'est entretenu avec le directeur de l'aéroport de Mayotte sur la mise en place de ce projet d'envergure qui est un maillon essentiel pour soutenir le développement économique de l'île.



Daniel Lefebvre: « Nous sommes passés d'un aéroport rudimentaire à un aéroport moderne, à l'état de l'art de la technologie ».

l'agrandissement du parking principal existant. La nouvelle aérogare a été conçue pour être la plus fonctionnelle possible.

Le premier coup de pioche de la construction de ce nouveau terminal a eu lieu le 5 mai 2012. Le budget global des travaux est de 45 millions d'euros avec un investissement de 35 millions d'euros de SNC-Lavalin et de 10 millions d'euros par l'état français.

« Nous sommes passés d'un aéroport rudimentaire à un aéroport moderne, à l'état de l'art de la technologie », souligne Daniel Lefebvre.

L'aéroport dispose à présent de nouveaux équipements avec la mise en place de deux passerelles, cinq détecteurs à bagages, 37 caméras vidéo avec un système dit « GTC » qui commande des fonctionnalités comme la luminosité et la température de même qu'un système d'affichage en temps réel sur les vols.

« Le plus grand défi fut la formation du personnel, des sous-traitants et des fournisseurs afin qu'ils puissent s'adapter à l'ensemble des évolutions technologiques du nouveau terminal », ajoute Daniel Lefebvre.



De gauche à droite: François Hollande lors de l'inauguration du nouveau terminal de Mayotte. Premier avion commercial utilisant le nouveau terminal de Mayotte. Nouveau terminal de l'aéroport de Mayotte.

Un leader des opérations aéroportuaires en France

SNC-Lavalin est l'un des plus importants groupes d'ingénierie et de construction au monde, et un acteur majeur en matière de propriété d'infrastructures et de services d'exploitation et d'entretien. Fondé en 1911, SNC-Lavalin travaille actuellement dans une centaine de pays.

Le groupe gère 15 aéroports en France ainsi que l'aéroport de Malte. Depuis 2011, SNC-Lavalin gère et exploite l'aéroport de Mayotte pour une durée de 15 ans. Cette concession prévoyait notamment la livraison d'un nouveau terminal capable d'accueillir annuellement plus de 600 000 passagers et l'adaptation des infrastructures existantes pour accueillir des avions plus importants.

Selon SNC-Lavalin, la gestion des aéroports régionaux représente un potentiel important y compris en Afrique pour le groupe qui propose un savoir-faire unique sur l'ensemble des cycles de vie d'un aéroport (ingénierie, financement, construction, concession, opération et maintenance).

L'architecture s'inspire des grands toits et des varangues locales pour définir de vastes espaces couverts, protégés des pluies et du soleil, faisant de cette aérogare un véritable espace d'échange et de convivialité.

« Nous avons opté pour une aérogare en ossature en bois, ce qui avait été très décrié lors de la présentation du projet initial », se souvient-il. « Ce choix fait désormais l'unanimité. »

Ce nouveau terminal permet également de réaliser une économie globale d'énergie d'environ 40% par rapport à une aérogare actuelle de même capacité. Les architectes ont fait le choix de jouer sur les structures architecturales du toit notamment pour favoriser des courants d'air qui rafraîchissent l'atmosphère à l'intérieur de la salle d'embarquement.

Une extension assez conséquente du parking de stationnement de la piste est en cours. Le

nouveau terminal ne peut pas pour le moment connecter directement ses nouvelles passerelles télescopiques sur des avions de type Boeing 777 ou l'Airbus A330 sans que le personnel ne tracte l'avion pour le placer sur le parking.

L'aéroport compte désormais stimuler le trafic aérien vers Mayotte. Plusieurs compagnies opèrent aujourd'hui sur Mayotte comme Air Austral, Air Madagascar, Corsair International, EWA Air, Inter Ile Air, Kenya Airways et XL Airways France.

« Nous n'avons pas encore eu ces démarches de prospection pour développer le trafic aérien vers Mayotte car nous étions mobilisés sur les travaux et l'ouverture de ce nouveau terminal, » explique Daniel Lefebvre. « Nous sommes cependant ravis d'accompagner depuis maintenant un an, les opérations de la compagnie mahoraise EWA Air (filiale à 51% d'Air Austral), qui affiche de belles perspectives de développement. »



Selon Daniel Lefebvre, il y aura de grands développements sur Pemba et Dar es Salam dans les 6 à 12 prochains mois, avec une forte augmentation du trafic. Le Mozambique se trouve aujourd'hui dans une phase préliminaire de construction du 3ème terminal gazier le plus important au monde. Il y aura davantage de trafic dans le sens Afrique/Mayotte avec des correspondances en particulier pour l'île de la Réunion. « Nous suivons avec attention les projets de développement de la compagnie Fastjet qui peut-être un facteur très stimulant pour l'aéroport de Mayotte. »

Le nouveau terminal de Mayotte est donc un véritable outil pour renforcer l'attractivité de l'île et soutenir son développement par l'augmentation de sa capacité et la qualité d'accueil des passagers. Reste à savoir comment l'île va pouvoir tirer profit de la croissance du canal du Mozambique et développer son industrie du tourisme à l'image des Seychelles ou de l'île Maurice.

SUMMARY

Presidential boost for Mayotte terminal

On August 23 the inauguration of Mayotte Airport's new passenger terminal took place in the presence of French president François Hollande. Vincent Chappard met airport director Daniel Lefebvre to discuss the modernisation project.

Mayotte, a French dependency in the heart of the Mozambique Channel, should have officially opened its new airport terminal on July 23 but the French president had to postpone his Indian Ocean tour due to the crash of Malaysian Flight MH17 and the Air Algeria accident.

Mayotte Airport's traffic has doubled in 10 years and it saw more than 325,000 passengers in 2013 against just over 150,000 in 2003.

The new terminal can accommodate 600,000 passengers a year, with a possible future extension to reach up to 1.2 million. The airport has a 1,930metre runway and can now accommodate aircraft such as Airbus A330s and Boeing 777s.

Mayotte is now an eight-hour direct flight from Paris.

The new terminal actually went live on May 14, just before the peak tourist season. "We have switched from two older terminals to a single new terminal of 7,800sqm," said Lefebvre.

The work was driven by the SNC-Lavalin group, which also manages the airport under a 15-year concession granted in 2011. This was part of a package that included the completion of the new terminal building and infrastructure and the expansion of the main car park.

The ground breaking ceremony for the terminal construction took place on May 5 2012 and the budget was €45 million (\$58.2 million) – €35 million from SNC-Lavalin and €10 million from the French state. "We have gone from a rudimentary airport to a modern airport with state-of-the-art technology," said Lefebvre.

The revamped airport has already seen increased traffic with operators including Air Austral, Air Madagascar, Corsair International, EWA Air, Inter Island Air, Kenya Airways and XL Airways France.

AIR CARGO SOLUTIONS TO EAST AFRICA



SCHEDULED FREIGHTER SERVICE

EUROPE - NAIROBI
JOHANNESBURG - NAIROBI
NAIROBI - JUBA (SUDAN)
NAIROBI - DAR-ES-SALAAM &
MWANZA (TANZANIA)
NAIROBI - ENTEBBE (UGANDA)
NAIROBI - PEMBA (MOZAMBIQUE) *NEW*
NAIROBI - MORONI (COMOROS) *NEW*
NAIROBI - MOGADISHU (SOMALIA) *NEW*
NAIROBI - KIGALI (RWANDA)

ADHOC CHARTERS SERVICES

For Telecom, Relief, Project, Motor Vehicles, Oil and Gas Equipment to over 50 destinations in East, Central, Southern, Horn of Africa and the Indian Ocean Islands.

FREIGHTER FLEET

FOKKER 27 | DC9 FREIGHTER | B727 FREIGHTER | B747 FREIGHTER



Astral Aviation Ltd, Jomo Kenyatta International Airport, P.O. Box 594, Nairobi 00606, KENYA

Tel: +254-20-827222/6 | Cell: +254-733-827222, 710-827222 | Email: info@astral-aviation.com

www.astral-aviation.com

CONTINUED FROM PAGE 91

immediate effect until it is able to sufficiently and evidently prove that machinery is in place to provide adequate screening of passengers in all their points of operation, including profiling of each passenger," he said.

Asky Airlines operates flights from the Nigerian city of Lagos to the Ivorian capital Abidjan, Pointe Noire and Kinshasa in the Democratic Republic of Congo (DRC), the Gabonese capital Libreville, and the Togolese capital Lomé.

The suspension followed a voluntary suspension of all direct flights to and from the Sierra Leone capital, Freetown, and the Liberian capital, Monrovia, by Togolese airline Arik Air, which operates 33 daily flights and flies 52 routes to reach 22 regional and global destinations. Arik Air said the move was aimed at preventing the potential spread of the virus.



Richard Kamwi, Namibian Health and Social Services minister, announced a ban on all flights to and from his country to Guinea, Liberia, Nigeria and Sierra Leone, saying that the move was designed to curtail the spread of the disease. However, he said Namibian citizens coming from any of the affected countries would not be barred from entering the country.

"Returning Namibian citizens will be subjected to strict screening at the port of entry to ensure that they are not infected with Ebola," he announced. "We do not need to panic but let us not be complacent and ensure that our emergency response system is well functioning and our protective medical equipment is well stocked up in case of the unlikely event of the virus coming south."

SOMMAIRE

La menace Ebola

L'épidémie d'Ebola n'était pas encore sous contrôle lorsque le magazine partait sous presse fin septembre. Les compagnies aériennes ont commencé à limiter les risques de propagation. Comme l'indique Oscar Nkala de Bulawayo (Zimbabwe), les autorités de nombreux pays sont extrêmement préoccupées.

Même si le virus Ebola est moins facile à contracter que le SRAS, ayant semé la panique en 2003, les chances de survie sont nettement plus faibles. Ebola se transmet par contact humain et non dans l'air à la différence du SRAS. L'hygiène a donc un rôle important dans la prévention et la propagation du virus. Le 2 septembre dernier, la Guinée, la Sierra Leone et le Libéria ont confirmé une recrudescence des personnes infectées avec quelques cas signalés au Nigéria et au Congo.

Depuis, plusieurs pays de l'Est, de l'Ouest et d'Afrique centrale ont interdit les vols directs en provenance de la Sierra Leone, du Libéria et du Nigéria. ASKY Airlines et Arik Air ont réduit considérablement leurs plans de vol. Il s'agissait de prévenir le risque de propagation du virus. Le Zimbabwe, le Kenya et les Seychelles ont mis en place des moyens de dépistage supplémentaires. Les

Agonising wait to see if the virus will strike

The Centers for Disease Control (CDC) say the incubation period, from exposure to when signs or symptoms appear, for Ebola ranges from two to 21 days (most commonly 8-10 days).

Early symptoms include sudden fever, severe headaches, and muscle aches.

Around the fifth day, a skin rash can occur. Nausea, vomiting, chest or abdominal pain, and diarrhoea may follow. Symptoms can become increasingly severe and may include difficulty breathing or swallowing, bleeding inside and outside the body, and multi-organ failure.

People who have been exposed to Ebola should not travel on commercial aircraft until there is a period of monitoring for symptoms of illness lasting 21 days after exposure. Sick travellers should delay travel until cleared by a doctor or public health authority.

Cabin crew should follow infection control procedures for ill travellers identified during flight. Although Ebola does not spread through the air, these routine precautions include management of travellers with respiratory illness to reduce the number of droplets expelled into the air.

Aircraft travelling to countries affected with Ebola should carry universal precaution kits, as recommended by ICAO, for managing ill passengers on board.

The Government emergency response measures included the acquisition of dozens of thermal detectors for screening alongside other disease surveillance measures on all travellers entering and leaving Hosea Kutako International Airport, Walvis Bay Port and the busy Oshikango border post.

The island nation of Seychelles responded to the Ebola threat by ending the visa-free entry status for

tourists and citizens entering from Sierra Leone, Liberia, Guinea and Nigeria, "countries that border the affected states and others in the region".

All nationals wanting to travel to west Africa were required to seek permission from the Government before they could proceed to their destination.

In addition to the four countries already affected by Ebola, the Seychelles is also taking extra measures to screen visitors coming from Cameroon, Chad, Niger, Burkina Faso, Senegal, Mali, Benin, Ivory Coast, Ghana, Togo, Congo, Democratic Republic of Congo, Gambia, Mauritania and Senegal.

"We are advising the population to refrain from travelling to the affected countries and we are implementing a strict surveillance of passengers who have returned from affected countries for at least 21 days after arrival in Seychelles," said Public Health commissioner Jude Geddeon.

"There is no ban for travelling, we are just asking people to be more cautious about their health. We are also working with the immigration office to see how many Seychellois nationals are currently working in Sierra Leone, Liberia, Guinea and Nigeria. Once this is determined, we will be in touch with them and see how we can help them. Anybody who returns to the Seychelles from the affected country will be taken care of immediately by the ministry of health."



South African-based Zimbabwean commercial aviation analyst, Godfrey Mathuthu, said the Ebola scare is a long-term public health emergency, which will hit the airline industry harder than any other economic sector.

"The airline industry has already taken a severe knock from Ebola. Unfortunately, I think the industry should accept that this is a long-term African-based health emergency and it going to affect business dramatically.

"The effects will especially be felt by locally based African airlines, which are struggling to develop and have neither the finances nor the human resource capacity to set up the expensive on-board disease detection and quarantine facilities foisted on them by this emergency. So they will be out of business for as long as the Ebola emergency lasts," he said.

"In addition, the airlines also have to consider the fact that the 'diseased destination' stigma will last well beyond the actual end of the regional Ebola emergency. By and large, it is the operations of Nigerian-based regional operators which have suffered and they will continue doing so right up to the end of this year."

Economies are also suffering as international airlines suspend flights. For example, in August British Airways suspended all flights to Sierra Leone until December 31, and Air France suspended Freetown flights. South Africa instituted a travel ban from the three main affected countries, with an exception for South African citizens who could show they had to travel.

COMPANY

VESTERGAARD

WHEN EFFICIENCY MATTERS

- Aircraft Washing
- Aircraft Deicing
- Water and Toilet Service



Vestergaard Company A/S
Skullebjerg 31 · Gevninge
DK-4000 Roskilde
Denmark
Tel. +45 4642 2222
Fax +45 4642 2232
Mail: sales@vestergaardcompany.com

Vestergaard Company Inc.
1721 N. Oak Drive
McHenry, IL 60050 · USA
Tel. +1 815 759 9102
Fax +1 815 759 9103
Toll free +1 888 759 9118
Mail: usa@vestergaardcompany.com

Vestergaard Company Ltd.
Pinthong Industrial Estate
789/50 Moo 1, Nongkharm
Chonburi 20230 · Thailand
Tel: +66 (0) 38 348 630
Fax: +66 (0) 38 348 631
Mail: asia@vestergaardcompany.com

www.vestergaardcompany.com

It could, according to one expert speaking at the Smart Borders conference in London, take decades for aviation security in some parts of Africa to catch up with the rest of the world. Steve Knight reports.

Africa 'decades behind'

Terrorism, piracy, human trafficking, arms trafficking, drug smuggling, counterfeiting, poaching and all types of fraud are regularly occurring throughout many areas of Africa.

So said Serge Rinkel, director of programs and services at the world border organisation Borderpol.

Rinkel certainly didn't pull any punches during his presentation on developing strategies to combat cross-border crimes in Africa.

The continent, which contains 54 countries and more than one billion inhabitants, suffered from "poverty, corruption and porous borders," said Rinkel, who went on to discuss a culture of impunity regarding international smuggling networks.

"Antonov 12, IL 76, Boeing 707 and 727, and DC8 aircraft are known to be used in the weapons trafficking circuits," said Rinkel. "They come back with natural resources, fish, cashew nuts etc," he added.



He called for the creation of a database with lists of suspect aircraft published through Interpol and the United Nations.

"We must stop aircraft [involved in this trade] refuelling in Europe, especially in Malta," he said.

Rinkel discussed many areas of Africa, including the Democratic Republic of Congo where, he said, more than five million people had been killed since 1998 – the deadliest conflict since World War II.

Displaying a picture of an aircraft smuggling goods at Kisangani, capital of the country's Orientale Province, he added: "Rebels never miss arms and ammunition; they export illegally natural resources including gold, uranium, cobalt, coltan and cassiterite. In conflict zones armed groups smuggle with neighbouring countries."

More generally on the smuggling theme Rinkel added: "Containers, ships, aircraft and vehicles are not properly targeted and rummaged [by the authorities], so African ports are easily used to import and export illicit cargoes of arms, drugs, counterfeit goods, gold, ivory, [and] counterfeit cigarettes."

"There is a lack of training in Africa, a lack of equipment, and a lack of methodology."

Rinkel finished his presentation with a plea for

November 2009: A Boeing 727 burned out after unloading cocaine in northern Mali, as shown in Rinkel's presentation.



African ports are easily used to import and export illicit cargoes of arms, drugs, counterfeit goods, gold, ivory, and counterfeit cigarettes.

everyone to work together to combat the menace. "To fight smugglers, pirates and terrorists, we are all on the front line; law enforcement community and private sector should never give up," he said.

Earlier, a presentation by Marie-Caroline Laurent, assistant director security & travel facilitation Europe, for the International Air Transport Association (IATA), had been much more upbeat – although even she had to admit that Africa was lagging behind.

Laurent looked at issues surrounding passenger data exchange, automated border controls (ABC), the international traveller programme (ITP) and

on aviation security

smart security – the next generation for passenger screening.

She explained: “IATA and Airports Council International (ACI) have agreed to join efforts, pool resources and merge their respective initiatives in next-generation passenger screening under the joint smart security programme.”

Laurent imagined a landscape where, by 2020, there would be uninterrupted passenger flows at airports with 80% of travellers offered fast throughput and secure screening based on risk assessment, with a single-window border requirement.

“For this to happen, over the next few years, we are going to have to optimise resources and asset utilisation, integrate new technology and

repurpose what now exists,” she said.

Passenger data exchange would play an increasingly important role in future. “Post the 9/11 attack [on the World Trade Centre in New York] we are seeing increased state requests for data on travelling passengers,” said Laurent. “Today 60 states want information; by 2020 we expect that to become around 120 countries. There is a clear need for governments to get together and talk to each other about what is required.”

Laurent believed the answer was to expedite

**“To fight
smugglers, pirates
and terrorists, we are
all on the front line.”**

SERGE RINKEL

nationals and low-risk passengers using ABC, cutting the average border crossing time from around three minutes to below 30 seconds.

Passports or ID cards containing biometric data, as well as using the ‘registered traveller programme’ were key to the solution.

She was proud that more than 100 countries around the world were already issuing e-passports. However, it

was clear that Africa remains a considerable problem, with only a tiny percentage of nations currently able to offer that facility.

AIRLINE CREW TRAINING

With 25 years of experience in Aviation Training, and an international profile we support Airline Operators and Individual Pilots in set up, selection and training.

Strategically located in two continents, Europe-Athens and the Middle East-Dubai. Approved by two global leading Authorities, European EASA and the UAE GCAA.



PILOT TRAINING 
AIRPLANES
HELICOPTERS

CABIN CREW 
MAINTENANCE 

Middle East
Dubai UAE- Silicon Oasis
+971 43922200
info@jetstream.ae

Europe
Athens, Greece - Athens Int'l Airport
+ 30 210 3541333
info@jetstream.gr

 **JETSTREAM**
Aviation Academy

www.jetstream.gr

*As LAM Mozambique marks the first anniversary of the TM470 crash, outgoing chief executive Marlene Manave reveals to **Martin Rivers** new details about the pilot accused of downing the jet.*

Mystery of the cabin lock-out

The loss of LAM Mozambique Flight 470 on November 29 2013 undoubtedly marked the darkest day in the east African flag-carrier's 77-year history.

All 33 souls aboard the newly delivered Embraer 190 died when, according to preliminary investigations, Captain Herminio dos Santos Fernandes locked his co-pilot out of the cockpit and deliberately sent the plane hurtling towards Namibian soil at 6,000 feet per minute.

The suggestion that pilot sabotage was to blame only intensified the distress of LAM's management team, which had been working tirelessly to remove the airline from the European Commission's blacklist. Chief executive, Marlene Manave, and chairman, Carlos Jeque, both lost their jobs in the months that followed, with the board pledging a fresh start for the beleaguered airline.

Shortly before she was relieved of her duties, however, Manave spoke about the pilot's personal background and the flag-carrier's strategy to revitalise its tarnished reputation.



"It's still being assessed. We are still waiting for the [final results of the] investigation," she began, expressing incredulity at the preliminary findings. "We really don't know what happened. We are very anxious to find out.

"The pilot's history before the accident does not point to what happened... it is true that he had a son who is thought to have committed suicide. His son died in a car accident one year before, but it is very difficult to prove whether it was suicide or mechanical problems with the car... that is the only thing that links to a possible [pilot] suicide. Besides that, nothing, nothing."

Investigators located the cockpit-voice and flight-data recorders from the remote crash site in Bwabwata National Park in north-eastern Namibia within four days of the aircraft going down.

All that was known at the time came from air



Marlene Manave: "We are still waiting for the final results of the investigation."

traffic controllers in the region. TM470 had left Maputo at 09:26 UTC, entering South African airspace eight minutes later and then crossing into Botswana at 10:51 UTC. Roughly halfway through the journey to Luanda – just as the plane crossed the narrow strip of Namibian territory separating Botswana from Angola – contact was lost. There was no distress call.

The final radar signal was logged at about 11:30 UTC, when Botswana air traffic controllers tracked TM470 descending rapidly from 38,000 feet to below 2,000 feet.

On December 21, after the recorders had been analysed by the US National Transportation Safety Board (NTSB), the preliminary findings were released. João Abreu, head of the Mozambican Civil Aviation Institute (IACM), revealed that the first officer had been locked out of the cockpit during a bathroom break, at which point the aircraft's altitude was re-configured three times. In the final moments before impact, alarms and loud bangs on the cockpit door could be heard – presumably the first officer attempting to gain access.

With no evidence of technical malfunctions coming to light, Abreu concluded that the pilot displayed a "clear intention" to purposefully

crash the jet. The findings were a bitter pill for management to swallow.

Captain Herminio was head of pilot training at LAM, Manave noted. He had logged 9,053 flight hours during his career. As the aircraft taxied for take-off at Maputo, he had told his co-pilot that he wanted to get back on time to attend his brother's birthday party.

"The conversation during the flight was normal, according to his colleagues who listened to the black box," Manave continued. "When the co-pilot excused himself to go to the toilet, that's when everything started changing. But we don't know what happened – whether somebody got in [to the cockpit], or what was going through his [Captain Herminio's] mind, whether he was feeling bad – we really don't know.

"He said nothing, absolutely nothing. The last [spoken] thing you hear is the co-pilot asking to go to the toilet. It's still a mystery."



Pressed on the possible psychological impact of losing one's son, Manave emphasised that LAM had placed Captain Herminio on compassionate leave "for about three months" after the apparent suicide. Industry-standard psychological and proficiency tests were conducted before he was allowed to resume flying.

"Everything that had to be done was done," she recalled. "He was excused from work just because it was important to give him time [to mourn], not because there were any signs that he was not fine. He always said he loved his job, and he was staying there until he retired."

Manave personally urged the Namibian authorities to release their findings as quickly as possible so that LAM could rectify any shortcomings. But, after investigators confirmed that the aircraft had "no problems" and that "all the procedures were followed", she was told: "There is nothing we can do, because there is nothing that we failed in... this has to do with human factors, and you cannot predict that."



Although first and foremost a human tragedy for the 27 passengers and six crew who lost their lives, TM470 will inevitably have an impact on the flag-carrier's efforts to overturn its EU ban.

All airlines registered in Mozambique have been barred from entering European skies since April 2011, when Brussels raised "significant safety concerns" about the country's regulatory oversight. Manave said LAM is proactively supporting the IACM by transferring staff to the authority, and that ICAO has told Brussels "the main concerns" have now been addressed. Getting off the EU's blacklist, however, is much harder than getting on it. A hull loss will certainly not boost LAM's prospects.

As an interim solution, the airline's outgoing bosses were, therefore, working on a long-haul joint venture with an unnamed foreign operator.

The plan envisaged deploying a wet-leased wide-body aircraft on flights from Maputo to Lisbon, Brazil and China. It would have utilised a mixed cabin crew and co-branded livery, circumventing the EU ban due to its foreign registration and flight

crew. Presentations had been made to the governments of both Mozambique and the overseas partner, Manave said, and "if it is to happen, it's going to be next year [2015]."

LAM's independent network was also set for major changes, with Dubai, Mumbai, Ethiopia, Zambia and Malawi in the pipeline as the airline prepares to receive three more Boeing 737-700s in 2016 and 2017. Manave had even considered expediting the first delivery and up-gauging to 737-800s.

Now, however, such decisions will be reviewed and potentially amended by incoming chief executive Jacumba Aiuba and chairman Silvestre Valente.

Shortly after her successor took to the helm, Manave said she would take some time off before deciding her next career move. The well-respected LAM boss has total faith in the strategic plan she developed over recent years, and urged Aiuba to press on with its implementation. "I hope he does that," she said. "I wish the best for LAM."

LAM has two Embraer 190s (the third having been lost in the accident) and two 737.

SOMMAIRE

Un acte délibéré?

Alors que LAM Mozambique s'apprête à marquer le premier anniversaire de l'accident du TM470, Marlene Manave (CEO sortant), a révélé de nouveaux détails concernant le pilote accusé d'avoir fait crasher l'avion à Martin Rivers.

La perte du vol 470 de la compagnie LAM Mozambique a sans aucun doute été le jour le plus sombre de l'histoire de la compagnie.

Selon l'enquête préliminaire, le commandant Herminio aurait délibérément crasher l'avion sur le sol namibien. Cet acte n'a fait qu'intensifier la détresse de l'équipe de gestion de LAM Mozambique qui travaillait inlassablement pour retirer la compagnie de la liste noire de la l'Union européenne.

Marlene Manave a parlé à African Aerospace de la vie personnelle du pilote et de la stratégie de la compagnie nationale. C'était peu avant d'être relevée de ses fonctions.

« L'enquête est en cours. Nous attendons toujours les résultats définitifs. Nous ne savons pas ce qui s'est passé et nous voulons tout savoir », commentait Marlene Manave.

□ □ □ □ □

Après les analyses des enregistreurs par la NTSB, les résultats ont révélé que le pilote avait fermé le cockpit durant la pause de son copilote et que l'altitude de l'avion a été reconfigurée à trois reprises. En l'absence de preuves de défaillances techniques, le rapport conclut que le pilote a affiché une intention claire de crasher l'avion.

Reste à savoir si l'histoire personnelle du pilote, à savoir la perte de son fils, y a contribué. Car après ce drame, il avait été placé en congé par la compagnie. Des tests psychologiques et d'aptitudes avaient été menés avant qu'il ne soit autorisé à reprendre les vols. « Tout ce qui devait être fait a été fait ».

Cet accident aura inévitablement un impact sur la sortie de la compagnie de la liste de sûreté de l'UE. L'ensemble des compagnies aériennes enregistrées au Mozambique n'ont pas accès au ciel européen depuis 2011, l'UE ayant soulevé d'importants problèmes de sécurité concernant la surveillance réglementaire du pays.

Contacté par African Aerospace, Marlene Manave a indiqué qu'elle va prendre un peu de temps avant de faire des choix sur la suite de sa carrière.

Tom Kok reports from the International Civil Aviation Organization (ICAO) meeting in Dakar (27-28 May), where important steps were taken to continue improving Africa's safety record.

It's no accident that Africa is safer

Close to 300 African aviation experts and senior officials from both public and private-sector bodies heard that that the continent is becoming a safer place.

ICAO secretary general, Raymond Benjamin reported: "Between 2010 and 2013 the accident rate for Africa has fallen by 45% – from 16.8 accidents per million departures to 9.3 – while the number of fatal accidents over this period dropped from three to one per year.

"This represents excellent progress but there is still work to be done if Africa is to more fully benefit from the socio-economic advances that invariably derive from the establishment of safe and dependable air services."

The symposium, which was opened by the Senegal minister of tourism and air transport, was held on the eve of the 13th meeting of the steering committee for ICAO's comprehensive regional implementation plan for aviation safety in Africa (AFI Plan).



The principal outcomes of the symposium were the signing of a number of major agreements.

One featured a memorandum of understanding (MoU) concluded among regional economic communities including the Civil Aviation Authority of Africa and Madagascar (AAMAC), the Central African Economic and Monetary Community (CEMAC) and the West African Economic and Monetary Union (UEMOA).

The MoU aims to coordinate the functions of the regional safety oversight organisations

"Between 2010 and 2013 the accident rate for Africa has fallen by 45%."

RAYMOND BENJAMIN

(RSOOs) and in the long-term to establish one common RSOO.

Another important agreement covered the African Flight Procedure Programme (AFPP). Twenty states signed up to it during the symposium to facilitate the implementation of performance-based navigation (PBN) in Africa.

High on the meeting's agenda was a progress report and detailed review of the regional safety targets adopted by the Abuja ministerial conference on aviation safety in July 2012.

The Abuja targets have become an inspiration to other regions of the world and are consistent with the revised global priorities established in ICAO's global aviation safety plan.

Among the many papers at the meeting, an impressive and professional account came from Sudan. The paper highlighted the emotional and personal process that a civil aviation authority in Africa goes through when ICAO finds a significant safety concern (SSC).

Sudan's experience with the SSC started the day the ICAO audit team presented its report relating to the ICAO coordinated validation mission (ICVM) conducted in Sudan in December 2011. This ICVM was the first Sudan had gone through after the comprehensive systems approach audit conducted five years earlier.

Although the ICAO team appreciated the progress made in resolving deficiencies from the 2006 audit, it also identified a SSC in the area of air operator certification.

Zambia's director general of the newly established Civil Aviation Authority, Gabriel Lesa, reported on his country's progress with

implementing its corrective action plan since 2009.

The European Commission took note of that progress in the latest update of its aviation safety list in April of this year, a positive step towards removal from the EU aviation safety list.

The symposium also received an overview of the assistance options currently available from states, aviation safety partners and the ICAO.

Peter Bombay, deputy head of the European Commission's aviation safety unit, underlined that the commission's mandate was not driven by the view that the European passenger is more important than other passengers. "On the contrary, the African passenger is entitled to the same level of international safety as European passengers and that is what the commission is aiming to help with its technical assistance," Bombay pointed out.



Bombay's colleague, Dr Norbert Lohl, certification director for the European Aviation Safety Agency (EASA), gave an overview of the various technical assistance projects and programmes in which the European Union is involved. "These include regional programmes, such as the support to the improvement of aviation safety in Africa (SIASA), but also national programmes like the improvement of aviation safety in Malawi (IASOM) or the aviation safety action programme (ASSP) in Zambia," Lohl elaborated.

"Looking at regional co-operation, we also have to be realistic," Bombay underlined. "Regional co-operation, especially with and between smaller states, is necessary but implies a transfer of powers, something none of our national administrations and CAAs like to do."



Kate Lang, from the US Federal Aviation Administration (FAA), shared some of the results of her organisation's survey conducted late last year.

"That survey aimed to identify the activities that FAA can uniquely or best provide to you – that is, those things that are not duplicating efforts from other players and that you cannot find anywhere else," she explained.

Lang works from Brussels as the FAA's director of Europe, Africa and the Middle East. "We use the outcome of the survey to focus the safe skies for Africa programme that was started in 1998. As a result of the survey, our focus will include aviation English language training, airport wildlife hazard management training, supporting local runway safety teams and aerodrome certification." This focus can also be found in the AviAssist Foundation's programme for the next five years.



"As a global organisation, an important aspect of ICAO's mission is to assist our member states with training and capacity-building coordination. This targeted assistance helps them to meet global expectations with respect to the implementation of ICAO standards and recommended practices," Benjamin added.

RwandAir deputy CEO, Jean-Paul Nyirubutama, spoke of his airline's experience with obtaining and maintaining its IATA operational safety audit (IOSA) certification. "We have had invaluable support and commitment in improving aviation safety from IATA and AFRAA," he said.

"What the IOSA experience has taught us is the crucial need for airlines to exchange and share the experience of achieving IOSA because it is by no means an easy process."

SOMMAIRE

La sécurité aérienne s'améliore lentement en Afrique

D'importantes mesures ont été prises à la conférence de l'OACI, à Dakar, pour améliorer la sécurité du transport aérien en Afrique. Le point avec Tom Kok.

Près de 300 experts du transport aérien ont suivi les interventions soulignant que la sécurité aérienne s'améliore progressivement en Afrique.

Selon Raymond Benjamin, secrétaire général de l'OACI, le taux d'accidents en Afrique a baissé de 45% entre 2010 et 2013, passant de 16,8 à 9,3 accidents par million de départs.

Il y a certes des progrès mais il reste encore du travail pour mettre en place un système de sécurité sûr et fiable en Afrique.

Plusieurs accords ont été signés durant ce symposium. Ils visent essentiellement à coordonner les fonctions des organismes régionaux supervisant la sécurité aérienne (RSOO) en Afrique. Un autre porte sur l'African Flight Procedure Program (l'AFPP). Vingt états ont ainsi appuyé l'application d'une navigation basée sur la performance (PNB) en Afrique.

L'OACI a également constaté que plusieurs pays ont acquis davantage

d'expertise concernant la sécurité aérienne comme le Soudan et la Zambie. Ces pays veulent également sortir de la liste noire de l'UE.

Peter Bombay, directeur adjoint du département de la sécurité aérienne de la Commission européenne, a souligné que la commission a aussi pour objectif d'assister techniquement ces pays.

L'engagement de l'UE se manifeste aussi à travers différents projets et programmes pour améliorer la sécurité aérienne tels que le SIASA, l'IASOM au Malawi ou l'ASSP en Zambie.

L'OACI a pour mission principale d'aider les états membres à se former et à consolider leurs capacités pour mieux répondre aux normes internationales. Pour les compagnies aériennes, il s'agit d'échanger et de partager leurs expériences autour de la certification IOSA.

C'est un processus difficile qui requiert le soutien inestimable de l'IATA et de l'AFRAA.

"Entre 2010 et 2013, le taux d'accidents pour l'Afrique a diminué de 45%."
RAYMOND BENJAMIN

ICAO secretary general Raymond Benjamin (centre) is flanked by conference delegates from all over Africa.

Promises made 15 years ago to liberalise African aviation have faltered. But there are some signs of hope. Tom Pleasant reports.

FREE AFRICA!

CONTINENT MUST FIND THE LOST KEY TO OPEN SKIES

A new report has highlighted the extensive benefits to African economies from even moderate intra-African air service liberalisation.

The IATA-commissioned report from the InterVISTAS consultancy focuses on the gains from 12 African nations implementing the 1999 Yamoussoukro Decision: Algeria, Angola, Egypt, Ethiopia, Ghana, Kenya, Namibia, Nigeria, Senegal, South Africa, Tunisia and Uganda.

Conservative estimates suggest gains ranging from 14,500 new jobs and \$283.9 million extra GDP for South Africa through to 8,000 new jobs and \$40.5 million for Senegal, for a total of 155,000 jobs and US\$1.3 billion across the 12 countries.

Traffic increases range from 51% (Nigeria) to 141% (Algeria). In total, the report projects increased traffic flows between the 12 countries of 81%, from 6.1 million passenger movements currently (in 2013) to 11.0 million after liberalisation (an increase of 4.9 million passenger movements).

"This report demonstrates beyond doubt the tremendous potential for African aviation if the shackles are taken off," said Tony Tyler, IATA's director general.



Africa's protectionist intra-African regulatory regime has hampered any expansion and improvement of air transport on the continent. For example, most intra-African aviation markets still suffer from restrictive bilateral agreements despite there being many between African and non-African countries that have seen significant liberalisation.

In addition, most African states have established flag-carriers that primarily focus on route development to European capitals, usually where large groups of expatriates reside, rather than strengthening intra-African or domestic networks. This has led to the cross-subsidisation of unprofitable domestic and regional routes



supported by profits from intercontinental routes protected by monopoly-oriented agreements. As a result, domestic, regional and trans-continental routes have remained underserved, inefficient and uncompetitive.

To address these issues, the 1999 Yamoussoukro Decision called for: full liberalisation of capacity, frequency and tariffs within intra-African air transport services; free exercise of first, second, third, fourth, and fifth freedom rights of passenger and freight air services; fair competition; and compliance with international safety standards.

Recognising that Africa consists of assorted economic and political organisations, the Yamoussoukro Decision accepted that policy implementation should only happen via regional economic communities (RECs). Today, 15 years later, that implementation has been limited.

The Arab states of north Africa have yet to liberalise air services among themselves, even though certain instruments, such as the Arab League Open Skies Agreement, exist. Morocco, the only north African country that is not a signatory party, has been the most proactive, having signed an open skies agreement with the EU.

In west Africa, the predominant organisation, the Economic Community of West African States (ECOWAS), has yet to make meaningful progress. However, the smaller REC, the West African Economic and Monetary Union (WAEMU), has gone beyond the provisions of the Yamoussoukro Decision and agreed to an EU model that includes cabotage rights.

In addition, the Banjul Accord Group (BAG) has agreed to a multilateral air service agreement in line with Yamoussoukro.

In central Africa, the Economic and Monetary Community of Central Africa (CEMAC) has implemented all the necessary legislative and regulatory elements to comply with the provisions of Yamoussoukro.

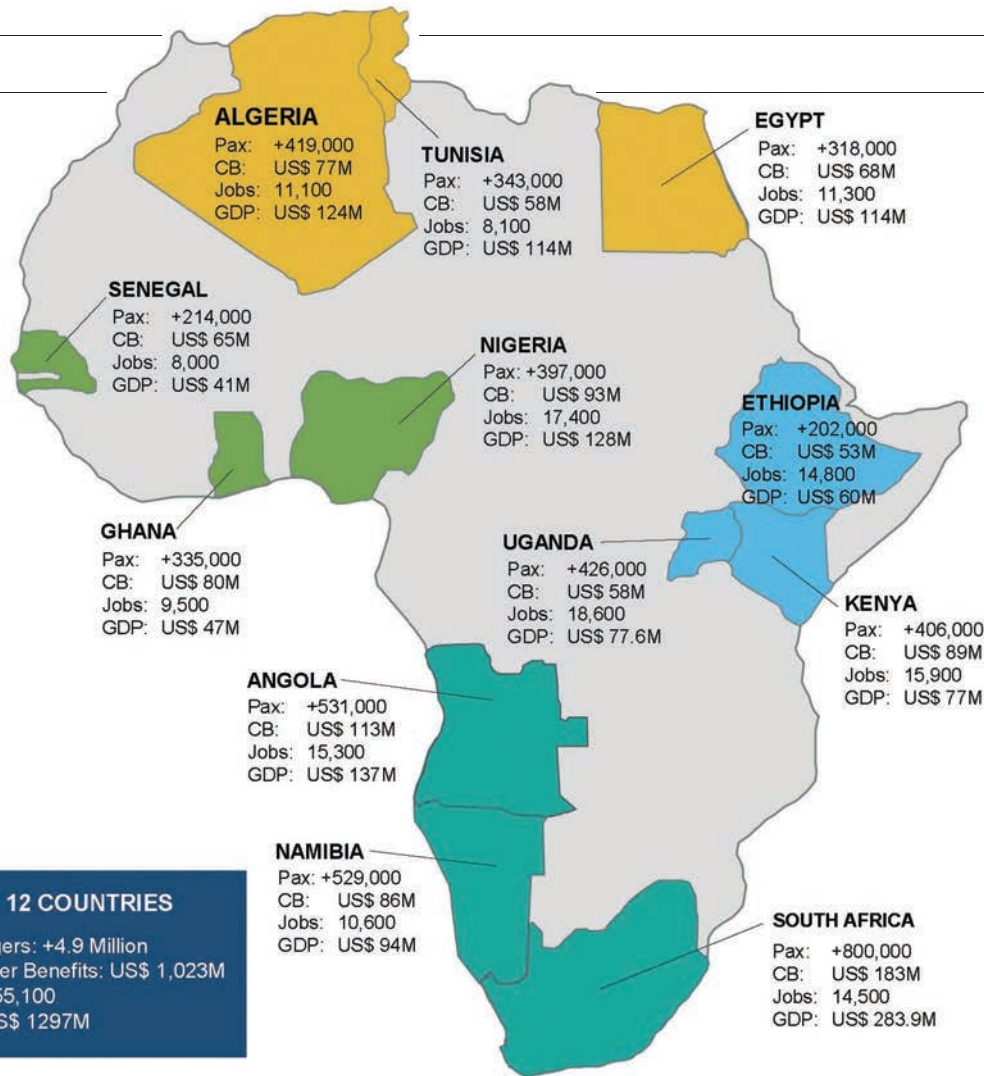
The Eastern Africa Community (EAC) has elected to revise existing bilaterals to align with the principles of the Yamoussoukro Decision. EAC has also made progress in other areas, such as establishing joint air safety and security agencies.

Conversely, the Southern African Development Community (SADC) has failed to make any substantial advancement.



Protectionism is still a primary cause for this excessive delay, with non-local airlines either having restricted market access because the national carrier is deemed not to be ready to compete in a liberalised market, or having to pay royalties for the privilege of using additional frequencies beyond what is allowed under the bilateral aviation safety agreement (BASA).

Discriminatory practices have also hampered the pace of liberalisation, with some African states refusing to open their skies to each other, but opening them to carriers from other continents. This is particularly apparent in west Africa where non-African airlines tend to receive more third, fourth and sometimes fifth freedom traffic rights than African carriers. As a result, it is often easier to fly to and from west African cities via London, Paris, Amsterdam or Dubai than to travel directly.



The economic impact of liberalisation according to the InterVISTAS report.

All financial figures in 2013 prices.

CB = Consumer Benefits, measured in terms of consumer surplus.

In addition, regulators outside the continent have imposed severe restrictions on African carriers. The EU, in particular, has been opaque in how it applies its infamous airline safety bans. Several airlines with strong safety records cannot fly to the EU simply due to the EU's lack of confidence in their national authorities, rather than the airline in question.

"Africa represents a huge potential market for aviation," said Iyabo Sosina, secretary-general of the African Civil Aviation Commission. "It is, therefore, unfortunate that African states are opening their aviation markets to third countries but not to each other, which does not promote the spirit of the Yamoussoukro Decision. This isn't just holding back African aviation, but African economies. States across the continent [need to] place aviation at the heart of their economic development and national growth strategies."

Although policy implementation remains incomplete or stagnant in many regions of Africa, progress has been made in certain places and with significant results to prove its value. For example, in 2000, South Africa and Kenya liberalised their bilateral agreement, which allowed multiple airlines to operate between the countries, increasing the number of daily flights from four to 14.

In 2003, the agreement went further and removed all restrictions on capacity. After liberalisation, passenger volumes on the main route

between the two countries, Johannesburg-Nairobi, had increased by 69%.

Further north, Ethiopia's pursuit of more liberal bilaterals (on a reciprocal basis) has contributed to Ethiopian Airlines become one of the largest and most profitable airlines in Africa. Research has found that on intra-African routes, Ethiopians benefit from 10-21% lower fares and 35-38% higher frequencies (compared with restricted intra-African routes).

In north Africa itself, the 2006 Morocco-EU open skies agreement led to a 160% increase in traffic and the number of routes operating between points in the EU and Morocco increased from 83 in 2005 to 309 in 2013.



In the late 1990s, Nigeria started to reform its aviation industry, with the complete deregulation of its domestic market and privatisation of airline and handling companies. In 2001, Nigeria implemented a new civil aviation policy promoting liberalisation and, in particular, the principles of the Yamoussoukro Decision. International bilaterals with some countries were reviewed and partially liberalised, including those with African nations, and in 2002, Nigeria signed an open skies agreement with the US.

It is estimated that liberalising Nigeria's remaining restrictive bilaterals could increase traffic on those routes by 33-66% (depending on the degree of liberalisation). If restrictions on airline ownership were also removed, traffic volumes could increase by as much as 117% (compared to a restrictive bilateral and ownership regime).

Liberalisation offers efficient, competitive carriers an opportunity to enhance profitability by expanding into new markets, accessing a wider pool of investment and through consolidation.

Ultimately, liberalisation, does not set off an inevitable chain of events. The example of Ethiopian Airlines demonstrates that African carriers can thrive in a more liberalised environment.

Whether the incumbent carriers prosper or suffer under liberalisation will depend more on the quality of their management.

"It is essential that African governments use aviation as a critical driver of social and economic development," Tyler added. "The Yamoussoukro process has been on-going for decades; Africa cannot afford to delay its implementation any longer. Greater connectivity leads to greater prosperity. I am an optimist for Africa – but we need governments to act on their commitments and set aviation free."



Everybody Can Fly

Conquer your fear of flying with Turkish Aviation Academy, don't delay your life.

According to some studies, one in every three people in the world has either fear or anxiety of flying. In order to eradicate the fear or anxiety of flying and to enable people who avoid flying due to these restrictions to fly, Turkish Aviation Academy offers a program called "How to overcome your fear of flying?" This program was first started in 2007, and it has been assisting people from 7 to 70 to defeat their fear of flying ever since. This program which is performed by various experienced professionals such as a clinical psychologist, an airline captain, technical instructor, and a cabin instructor is conducted in a highly sophisticated environment with the state of the art full motion cabin simulator. Furthermore, the program has a success rate of over 90%, thanks to its concept of high customer satisfaction through keeping in contact with both the old and the new participants of the program. Turkish Aviation Academy believes that everyone has the right to fly. In order to help people with fear of flying to overcome their problem, the Academy has constantly been improving the program in line with its slogan: **"Everybody Can Fly."**

People, composed of different age groups who need to travel long distances by air for their businesses, people who want to visit their families and loved ones residing far away, people who prefer to spend their vacation on different parts of the world, and people who study or plan to study abroad or in different cities, but are not able to do so because of their fear of flying, they get rid of their fear and anxiety of flying by joining the Academy's 2-day weekend program. By the theoretical knowledge which is provided by an airline pilot and a technical instructor in a classroom environment, participants are informed about planes' structure, their reliability and so on. By doing so, participants can get over their fear originating from lack of information. The program psychologist, by applying special exercises, is able to spot the root of the problems and eradicate them. During a full motion simulator flight which is one of the most important sessions of the training, participants get the opportunity of applying their theoretical and practical knowledge about the flight. On the second day of the program, participants who experience a real flight, bade farewell to their fear and anxiety of flight.

WE SHAPE THE FUTURE OF WORLD AVIATION.



TURKISH AVIATION ACADEMY



M.Sc. in
Air Transport Management



EASA Approved Trainings

IATA Trainings

ICAO TrainAir Plus – Travel Documents Course

Aviation & Cabin Crew & General English

Flight Phobia Programme

Heliport Trainings

www.thyaviationacademy.com
aviationacademy@thy.com

[/HavacilikAkademisi](https://www.facebook.com/HavacilikAkademisi)
[/TRAviationAc](https://twitter.com/TRAviationAc)
[/company/turkish-airlines-aviation-academy](https://www.linkedin.com/company/turkish-airlines-aviation-academy)
[/user/TurkishAviationAc](https://www.youtube.com/user/TurkishAviationAc)

Romania's Aerostar has done well recently with African operators looking for quality, affordable MRO services for their aircraft – not to mention MiG revamps.

Ian Sheppard reports from Bacau.

STAR CHECK...

«L'étoile de l'Est» – Page 106

Aerostar only just survived the end of the Cold War back in the early 1990s by making anything it could get money for, including its own light aircraft (which was overtaken when composites became popular).

But survive it did, and in recent years it has become a supplier of parts to mainstream OEMs such as Airbus and Boeing.

It also manufactures entire landing gear assemblies for TMB850 single-engine turboprops, as well as Dassault 7X airbrakes and spoilers, landing gear doors for the Gulfstream G450/550, and Airbus A380 flap-track raceways – all via contracts with Fokker Aero in Holland.

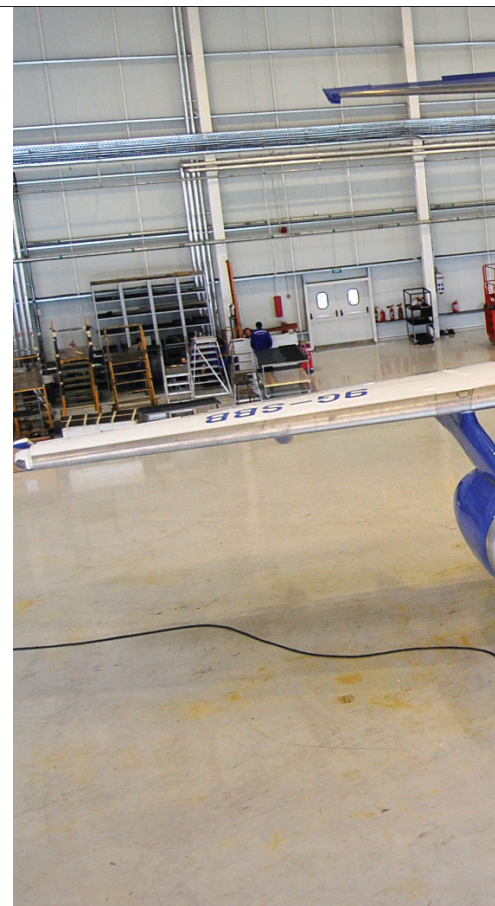
Alexandru Filip, director of business development, said Aerostar had celebrated its 60th anniversary last year, although it only became a private company, listing on the Bucharest stock exchange, in 1998.

Since 1953, he said, it had overhauled 3,500 aircraft and 6,000 engines, more recently gaining approvals for western types to become a narrow-body MRO specialist.

At one time its MRO activities were mainly defence-related and it still maintains expertise in MiG-21s – having upgraded 110 Romanian aircraft to MiG-21 Lancers in the 1990s. It has also worked on Let L-39s and, of course, Yak-52s.

The company has just completed the re-life and upgrade of eight MiG-21s for the Mozambique Air

Continued
on Page 106





Starbow Ghana

In July 2013 Aerostar won a contract from Starbow of Ghana to carry out 'C' checks on its fleet of four BAe 146 regional jetliners.

Starbow started domestic operations in Ghana in September 2011, with its maiden flight to Kumasi from the capital Accra. Services were later added linking Kumasi, Tamale and Takoradi to Accra.

Aerostar has held EASA Part 145 approvals for the BAe 146/Avro RJ jetliners for six years and has carried out around 30 overhaul and maintenance operations on the aircraft type.

Keeping FastJet Fast

In early 2014 Aerostar won a contract from Tanzanian-based low-cost carrier FastJet for the heavy maintenance of two of the airline's fleet of three Airbus A319 airliners. "This major new contract from one of Africa's newest and most exciting airlines underscores the growing market reputation that Aerostar is building across Africa for the quality, cost-effectiveness and on-time delivery of its MRO services," said Aerostar at the time.

Remus Vlad, Aerostar's Civil MRO business manager said: "We have worked hard to secure this new contract from FastJet and look forward to providing a first-class service to this important new customer."

Dave Thomas, head of training and technical support for FastJet, said: "We selected Aerostar for this heavy maintenance work following a combination of recommendations from other airlines and an attractive price for the work."

Mozambique MiGs

This year Aerostar completed a programme to bring eight Mozambique Air Force MiG-21 fighters back to life after some 20 years in storage.

The work involved avionics and systems upgrades and re-living of the airframes.

The Mozambique MiGs will give the African country a new fighter capability at a fraction of the cost of new aircraft offered in the market today.

Ovidiu Buhai, Aerostar director of aviation MRO and upgrades division, said: "We contracted with them for the full contract – repair, overhaul, upgrade, training and installation of ground test benches. It was a two-year contract entered into three years ago."

Aerostar president and general director Grigore Filip added: "Based on our experience with eastern platforms, such as the MiG-21 and L-39, and our expertise in new navigation systems, we plan to capitalise on the potential of the market, and our plan is to offer this expertise and experience for future generation aircraft."

"These are aircraft that have flown very few hours and it's a very good platform, not much affected by corrosion."



Drag splitters

In early 2014 Aerostar became one of the first independent European MRO organisations to install split scimitar winglets on Boeing 737-800s.

The work was carried out for Sweden's TUI Fly Nordic at Aerostar's Bacau facility in Romania, which is also the location of its headquarters.

The winglets were fitted to two 737 aircraft, one arriving in early May and having the work done during a maintenance check, while the other followed shortly afterwards for a maintenance check, wing strengthening and installation of winglets.

Each installation took six days and "had no impact on the maintenance check downtime", said Aerostar.

Ovidiu Buhai, director aviation MRO and upgrades for Aerostar, said: "We are very proud that Aerostar was chosen by an airline within [the] TUI Travel [group] to install these revolutionary winglets."



“We will not abandon our defence-related activities.”

GRIGORE FILIP



CONTINUED FROM PAGE 104

Force, and is looking for other opportunities (these aircraft had not been used for almost 20 years) while it also overhauls the Lancers one by one.

“With the market shrinking for older platforms, a strategic decision was made to use our knowledge in new areas,” said Filip. “We got Part 145 [EASA] maintenance approval and have been maintaining Boeing 737s for 10 years.

“We now also do [Airbus] A320s, BAe 146/Avro RJ, and the Rolls-Royce 250 engine, and we can also do BAe 146 cargo conversions.”

The latter was something pioneered with BAE Systems, although only two aircraft have been converted to date.

“The hangar where the MiG-21 upgrade [to Lancers] was carried out was allocated to commercial MRO but aircraft [fin] heights meant that we invested in a new hangar, which was commissioned two years ago,” said Filip, an aerospace engineer who joined the company – run by his father, president and general director Grigore Filip – four years ago to help modernise the business.



The company has been particularly successful in securing civil MRO customers from Africa, including airlines Starbow, Royal Air Maroc (RAM) and, more recently, FastJet.

Some 49% of its sales now come from civil aircraft production work and 18% from civil MRO.

It has been diligently expanding its capabilities in special processes, including surface coating, heat treatment, shot-peening, painting and non-destructive testing, said Filip.

Aerostar is also now looking to establish overseas bases, through partnership or acquisition.

Grigore Filip said that the company’s ambition is “to continue with the success” of conversion from military to civil business and “continue the growth both in the maintenance market and subcontracting... but in parallel we will not abandon our defence-related activities... and we estimate this will, in the long term, account for one third of sales.”

Aerostar has had considerable success building its civil MRO business, having gained engineering

SOMMAIRE

L'étoile de l'Est

La société roumaine Aerostar a séduit les opérateurs africains à la recherche de services MRO de qualité à des prix attractifs pour leurs avions. Une enquête de Ian Sheppard.

Aerostar a énormément œuvré pour survivre depuis la fin de la guerre froide. La société est devenue au fil des années un fournisseur de pièces pour les principaux OEM comme Airbus et Boeing. Elle assure des prestations pour des trains d'atterrissage ou l'assemblage des turbopropulseurs TMB850. Elle effectue de la sous-traitance notamment pour le Dassault 7X, le Gulfstream G450/550, l'Airbus A380 via des contrats avec Fokker Aero en Hollande.

Selon son directeur du développement, Alexandru Filip, Aerostar a célébré son 60ème anniversaire en 2013 même si elle n'est devenue une entreprise privée qu'en 1998. Ses activités de MRO étaient principalement liées au secteur de la défense avec une forte expertise pour les avions MiG-21, le Let L-39 ou encore le Yak-52. Elle prospecte d'autres opportunités et vient de finaliser des prestations de maintenance pour huit MiG-21 de l'armée de l'air du Mozambique. Aerostar opère désormais sur d'autres marchés comme la MRO des B737, A320, BAe146/Avro RJ incluant ses moteurs.

Aerostar a particulièrement percé en Afrique où elle a assuré des services MRO pour des compagnies aériennes comme Starbow, Royal Air Maroc et, plus récemment, FastJet. L'essentiel de son chiffre d'affaires provient maintenant de ses activités destinées à l'aviation civile.

Selon son PDG, Grigore Filip, l'ambition d'Aerostar est de poursuivre sa croissance dans le marché de la MRO et de la sous-traitance ainsi que réussir sa mutation vers le marché civil sans toutefois abandonner ses activités militaires qui représenteront à terme un tiers de son chiffre d'affaires.

Aerostar compte également étendre ses capacités vers de nouvelles activités industrielles comme le traitement thermique et de surface, le grenailage et le contrôle non destructifs.

expertise in defence work over several decades. Most recent is its contract with the Mozambique Air Force to “bring back to life” eight MiG-21s, a project that included training and support.

Ovidiu Buhai, director of aviation maintenance and upgrades, said that Starbow of Ghana “came for a second aircraft this year and have another BAe 146 they want a C-check on”, while “FastJet intend to come with another aircraft in November.”

He added: “We are also looking to other operators in Africa, within the range circle of 5,000km or maybe 6,000km. FastJet came because of good price and positive feedback from other airlines.”

And he hinted at other customers from Africa already signed up, with the company’s first [undisclosed] customer from the east arriving, too, later this year.

Almost all RAM’s Boeing 737NGs come to Aerostar for heavy maintenance. “We’d like to have more customers like them,” said Buhai, who added that late-2013/early-2014 had been “a very good season.”

He described Aerostar as a “centre of excellence for 737 maintenance”, though it has considerable experience of A320-family aircraft too – it has carried out heavy checks on six and has contracted for another four. “We aim to do another six this year,” said Buhai.

Operators in Turkey, such as Pegasus, are particularly in the company’s sights for follow-on business.

Buhai’s final comments were about a possible third hangar if it developed a 737 freighter conversion programme, or A320. “We’ll need a separate place for this and we have space to put in another hangar,” he said, admitting that the company is also considering extending out capabilities to Embraer E-170 and E-190 [families].

Remus Vlad, MRO/upgrades business development manager, listed some of the other work Aerostar had enjoyed, including heavy C-check on a 737-300F for Mena Aerospace Cargo (this aircraft was in the hangar), while a BAe 146-200 of Starbow had just left, with another due in February 2015 if it did not get sold.

Vlad confirmed that Aerostar had carried out 54 heavy checks last year.

AFRICA'S LEADING WORLD-CLASS MRO

Maintenance, Repair, Overhaul Organisation



**SOUTH AFRICAN AIRWAYS
TECHNICAL**

Capabilities in Line Maintenance,
Base Maintenance, Engineering,
Planning, Training and Certification

SAA Technical holds the following:
South Africa CAA - (AM01)
United States FAA - (DW5Y820M)
EASA 145 - (EASA 145.0136)

Email: SATMarketing@flysaa.com

Africa's largest aerospace and defence show AAD took place at Waterkloof Airbase near Pretoria. Marcelle Nethersole and Alan Peaford report from the show. Pictures by Mark Mansfield.



BIG SPLASH AT

Defence review held up by red tape

South African Defence Minister, Nosiviwe Mapisa-Nqakula, said she is "desperate" to see the country's defence review implemented.

Speaking at the opening of AAD, the minister said the review, which seeks to guide the reorganisation and reengineering of the South African National Defence Force (SANDF), was held up in parliament.

"We know our defence force requires certain capabilities and that acquiring them cannot be postponed any more," she said.

Mapisa-Nqakula said South Africa would be looking at other countries' defence reviews and added that it was important her country now conducted a review every five to 10 years to prevent the current day's problems being repeated.



Debut for first military aircraft made in Africa

The first military aircraft to be entirely designed and developed in Africa made its public debut at AAD. AHRLAC – it stands for advanced high performance reconnaissance light aircraft – was the centrepiece of the show's static display as it interrupted its flight test programme to make an appearance at the continent's largest aerospace and defence event.

Manufacturer Paramount said the multi-role aircraft was the subject of great national pride for South Africa, a claim backed by the country's defence minister.

AHRLAC features a unique pod system that allows configuration to a number of different requirements.

For intelligence, surveillance and reconnaissance tasks it can carry a variety of sensors and can also be armed for close support duties. The aircraft can also be configured for training and light cargo transport, and its ability to handle short and rough landing strips will give it the potential for operations in remote areas.

Paramount said it was currently completing the second prototype as an advanced demonstrator, which will test mission and weapon systems as well as the Martin Baker Mk17 ejection seats.



The Gabriel Pitt Special aerobatic display team.

Opposite, top row from left: South African Airforce Museum Vampire, Ex 2 Squadron Cheetah (modified Mirage 111) now operated by Denel Aviation.

Bottom row from left: South African Airforce (SAAF) Rooivalk Attack helicopter, Team Extreme: Two MX2 aerobatic aircraft; South African low cost carrier Mango Airlines flies a B737-800NG in formation with the SAAF aerobatic team The Silver Falcons flying Pilatus PC 7 Mkii's.

WATERKLOOF



AHRLAC flies in at Waterkloof.



Worth a scan...

Spanish technology company Indra demonstrated its magnetic resonance imaging (MRI) surveillance light aircraft to African defence forces at AAD.

The platform – based on a Tecnam P2006 twin-piston aircraft – is equipped with airborne radar and optronic sensors, and has already been deployed within a 150-mile radius of the coast.

Indra also had a model of its Mantis mini-UAV on display.

The smallest model (2.10 metre wing span) allows soldiers to observe every movement within an operating range of up to 30 kilometres.

UAVS, robotics and helos Paramount in Boeing deal

South Africa's Paramount Group revealed that it would co-operate with Boeing in areas such as unmanned aerial vehicles (UAVs), robots and helicopters, during an agreement-signing ceremony at AAD.

Paramount Group executive chairman, Ivor Ichikowitz, said: "There will be specific collaboration in the UAV space; we are looking at collaboration in the robotics space and collaboration in the rotor wing space.

"We're also looking at collaboration on platforms and on our mission systems. There are lots of possibilities.

"There are opportunities in the naval space and there are also opportunities to support US Africom activities in Africa."

Boeing is offering a variety of platforms to Africa, such as the ScanEagle UAV, AH-64 Apache, CH-47F Chinook and AH-6i. Algeria also recently evaluated Boeing's C-17 Globemaster III.

The American company is also promoting its maritime surveillance aircraft (MSA), which is a contender for the South African Air Force's maritime patrol aircraft requirement (project Metsi). The aircraft has also "generated some interest" in west Africa, according to Boeing at the show.



Boeing's MSA is gathering interest across Africa.

Robert Schoeffling, senior manager business development, maritime surveillance aircraft said: "Basically, Boeing took a proven, reliable, successful business jet, Bombardier's Challenger 605, packed it full of electronics from its successful P-8 maritime surveillance platform and, within two years of announcing the product, it was debuted at the Farnborough Airshow in 2014."

While the MSA does not perform anti-submarine warfare, it can conduct searches over large areas – South Africa has maritime treaty responsibilities from the northeast in Tanzania, around the Cape and northwest to the Bay of Guinea. It currently has no capability to meet those requirements.

Schoeffling said that even while functioning as a surveillance platform, the MSA could be easily configured for other roles, such as VIP transport or medevac.

ADB
Airfield Solutions

Airfield. Our Field.

ADB Airfield Solutions (Pty) Ltd is a renowned airfield lighting company based in South Africa. Globally ADB Airfield Solutions is a world leading airfield technology company providing end-to-end, integrated and sustainable solutions for visual guidance.

With a worldwide presence, and a 65 year legacy in airfield lighting and other solutions, ADB offers an innovative portfolio and expertise that sets new standards in safety, performance, quality, and customer service. More than 2000 airports in 175 countries have chosen ADB as their preferred partner for airside operations.

For more information about ADB, please visit our website at www.adb-air.com or call +27 (0) 11 525 9340

ADB Airfield Solutions (Pty) Ltd
2nd Floor, Rivonia Village, Cnr Mutual Road & Rivonia Boulevard South, 2128 Rivonia, Johannesburg, South Africa.
Tel: +27 (0) 11 525 9340 | Fax: +27 (0) 11 525 9348
Email: info-sa@adb-air.com



ITP on the hunt for a partner

Engine maintenance specialist ITP came from Spain to seek out an MRO partner and meet potential clients face-face.

Eduardo Rodriguez Munoz, sales director, said: "While we already do some work in this growing market, the main challenge I have is actually the first point of call with companies. It's very difficult to even get an e-mail response, I'm not sure why, but obviously it's quite frustrating as we are very eager to extend our work in the region as we are new to the market."

The company provides full maintenance and MRO and operates in two business areas, original equipment and in-service support. "We have different programmes for the military and civil market and have full MRO and engine module capabilities," said Munoz.

The company works in partnership with Rolls-Royce, GE, P&W, Snecma and Honeywell. On the military side, it is involved in programmes such as EJ200 for the Eurofighter and the TP400 for the A400M.

The 25-year-old company is headquartered in Madrid but has 18 operating centres around the world. It already does maintenance work in the region, including in Angola, Cape Verde, Botswana and South Africa.

"The next step for ITP is to establish a partnership with an FBO in Africa," said Munoz. "We want someone to represent us out here who knows the market."



Robot hero fights the poachers

Towering at 9.7 metres high over the AAD show was Africa's largest and newest super hero robot, the Parobot.

Parobot is the brainchild of African defence and aerospace company Paramount Group, and his mission is to highlight awareness of the role that the defence industry can play in fighting poaching through provision of technologies, equipment and training.

□□□□□

"Parobot was built to raise awareness of the plight of Africa's threatened wildlife populations," said Eric Ichikowitz, marketing director. "The one here at the show is against the poaching of rhinos, hence the horn on his head. And within the next 18 months we will have three more robots fighting against the poaching of gorillas, elephants and of marine species."

The one-tonne Parobot has a big message for African poachers. "Parobot is a symbol of resistance, to fight back and tell the criminal gangs who are behind the slaughter that we will not give up on Africa's wildlife heritage," said Ichikowitz.

Relaunched LM-100J looks set for a warm welcome in Africa

Lockheed Martin is confident that its relaunched LM100J will be welcomed in Africa.

Dennys Plessas, Lockheed Martin's vice president business development EMEA, said the original L100s had been performing well in Africa for more than 40 years and that operators had been asked about a possible replacement.

"They all said what they want is another L100," Plessas said.

The LM-100J is the civil-certified version of Lockheed Martin's proven C-130J Super Hercules and is an updated version of the L-100 (or L-382) cargo aircraft. The civil 'J' model was launched in February 2014.

South Africa's Safair currently operates one of the world's largest L-100 fleets. Its parent company, ASL Aviation, ordered 10 of the type at the Farnborough Airshow in July.

"We've long relied on our L-100s to deliver results that no other aircraft can produce," said Hugh Flynn, chief executive, ASL Aviation Group. "From flying humanitarian relief supplies over rugged African terrain to transporting key cargo within Europe and around the world, no other plane can do what



a Hercules can. We take pride in our legacy L-100 fleet and eagerly look forward to our future as LM-100J operators."

Lockheed Martin is hoping the military version will enjoy the same success.

Currently Tunisia is the only African country to feature the C130J. It will have its second aircraft delivered before the end of the year.

The LM-100J is set for operation in Africa.

"We are optimistic," Plessas said. "A number of air forces in north Africa are recapitalising. We have 120 older C130s operating in Africa and we are seeing interest from all over."

"There are countries that have never flown C130s and came to us. We demonstrated the aircraft in Angola, Morocco, Algeria, Nigeria and Ethiopia."

Denel to head up SA regional programme

South Africa is to develop its own South African Regional Aircraft (SARA) programme led by defence giant Denel.

"We have all of the skills from the work we have done in the defence industry and believe we can work with partners to make this happen," said Denel Aerostructures chief executive Ismail Dockrat.

Denel unveiled a mock-up of the 24-seat turboprop at AAD, where Dockrat said the company was anticipating a seven-year development programme through to FAR Part 45 certification.

"We are in pre-development stage right now," he said. "We could have an aircraft flying in two years but we have experience on working through certification programmes – with the A400M for example – so we know what is involved."



Denel's research showed that, while a lot of the world with major hubs will be using larger aircraft, the rapid growth in air travel on the African continent would create a demand for a new generation aircraft that can fly point-to-point.

"There is a clear need to link regional centres that are not currently accessible for passenger flights," said Dockrat.

"There is proven capacity within the local aerospace industry to deliver on an indigenous South African aircraft, as



demonstrated with the success we achieved with the Rooivalk helicopter."

Dockrat stressed that the SARA is not a Denel aircraft. "It is just Denel-led," he said. "We will work with others and will be looking for risk sharing or financial investment from international companies – perhaps even other OEMs – from around the world."

The SARA is expected to have a range of 1,500nm and will have a pressurised cabin to enable it to avoid weather issues that affect similar sized aircraft.

"If you look at the market, aircraft in this category are using 20-year-old technology. The SARA will utilise the latest technology, which will make the aircraft economic with fuel burn and comfortable for passengers," said Dockrat.

It will have three configurations – commuter, combi, or all cargo.

Major training facility scheme

Denel signed a three-way MoU at AAD with simulation and training company CAE, and Elisa, a local South African services company, to set up a major new training facility in South Africa.

Denel Aviation CEO, Mike Kgobe, revealed the plan for a South Africa National Training and Simulation Centre (SANTSC) that will offer pilot and technical training for military and commercial aviation, as well as emergency and disaster management training.

The envisaged phase one of the multi-phase project would be the upgrade of the facilities at Denel Technical Academy in Kempton Park.

The facility will be equipped with modern synthetic technical training solutions for computer-based learning in avionics, aero structures and propulsion disciplines.

It will also have state-of-the-art flight simulators to expand the offering to include pilot training programmes, as well as establishing training programmes based on modelling and simulation tools to support other market segments, such as emergency and disaster management.

"There is a mammoth demand for the training of pilots and other professional skills in the aviation sector, both within South Africa and on the rest of the continent," said Kgobe.

Jetcraft aiming to 'plant its flag'

Jetcraft last year became the world's largest private aircraft broker after acquiring Swiss based ExecuJet Aircraft Trading, which gave the US company a foothold in South Africa through its sales office in Johannesburg.

David Dixon, president from the Hong Kong office, and Melissa Meyer, aircraft sales for sub-Saharan Africa, were at AAD making sure the local market got to know the company.

"We took on ExecuJet Aircraft Trading to expand buying and selling aircraft here in Africa – a big and exciting emerging market in terms of business aviation," said Dixon. "While we already consider Turkey, Nigeria, Kenya, and South Africa 'mints of growth,' we want to expand in this region. West Africa is certainly a growing market we're looking at after southern Africa. Angola and Ghana also have excellent prospects."



The company also attended the African Business Aviation Association (AfBAA) symposium, held in Johannesburg just before AAD. "It became clear that many of the problems in Africa are the same as in Asia. This can be from problems involving labour unrest, exchange rate, or governmental issues. I think both sides need to be more educated. Joining AfBAA means we can work together collectively to solve issues," said Dixon.

Meyer said she was keen to promote the fact that customers wanted and needed aircraft as a business tool. "It's not just flash bang and status that customers are after. This is an industry to be encouraged, and not just for the rich and famous," she said.

Air BP plays its card

Air BP was at AAD to present its loyalty product – the Sterling Reward Visa card – to its customers in South Africa.

The scheme enables Air BP's Sterling card holders to earn money back on fuel purchases. It includes access to the interactive 'eNabler' paperless electronic invoicing system, 24/7 support from the global Air BP out-of-hours team, and access to a dedicated account manager.

Thermoteknix leads fight against infection

With the increasing spread of Ebola in Africa, and other infectious diseases such as swine flu, SARs and the H5N1 'bird flu' virus a global problem, early detection is paramount for both people and businesses.

One piece of equipment on display at AAD could help.

One of the first symptoms of many infectious diseases is a fever, and UK company Thermoteknix Systems was promoting its FevIR scan fever screening system to the region.

"The miniature, discreet and ultra portable FevIR scan skin temperature monitoring system can help with mass screening of high pedestrian areas, such as airports, train stations, factories and other public places," explained Dr Ray Livingstone, sales manager.

"It provides peace of mind with high-speed sensitive temperature measurement for high-volume pedestrian transit areas."

The system is based on a Thermoteknix thermal imaging camera working in conjunction with a blackbody calibration unit for high accuracy temperature measurement. It is easily installed, operated and relocated with the minimum of set-up time and operator training. On-screen alerts identify one or more individuals in a large crowd.

Safomar growing a new crop of pilots

A desperate skills shortage of pilots capable of operating crop-spraying helicopters has led to the development of training services by Safomar, South Africa's major helicopter distributor and aviation services company.

"Crop-spraying is vital for Africa's farming areas," said Safomar Holdings CEO Shai Shalem. "There are very few rated pilots and even fewer instrument rated for crop spraying," he said.

Safomar is the distributor for southern Africa for MD Helicopters and Enstrom. The company owns and operates its own helicopters and has installed crop-spraying equipment on

many different types. "The market is growing," Shalem said.

He described his company as a one-stop-shop. He said: "We will sell equipment, sell spares, set up tools and logistics, provide oils and even training."

He said in the past many operators found it difficult to get the essential parts and services. "Africa was seen as a graveyard for old equipment," he pointed out. "It was sold into Africa but was unsustainable. That is changing."

Safomar is forming partnerships across sub-Saharan Africa with operations in Ghana, Kenya, Namibia and Tanzania and is continuing to expand.



Shai Shalem - leading the one stop shop into new areas.

Flight school chips in with a message

One South African flight training school was at AAD demonstrating its successes across Africa... and with a very clear message.

"Our pilots become captains" is the slogan of Blue Chip Flight School, one the most experienced flight training schools in South Africa. Set up in 1996, the company has schools based at Newcastle Airport in KwaZulu-Natal, and Wonderboom Airport in Pretoria.

"The school is focused on commercial pilot training up to ATPL," said Kobus Lourens, general manager. "At the moment we have some 150 students, of which around 50% are from outside of South Africa. Many students come from other African nations, as well as Europe, the USA, and the Middle East, and people might also be surprised that around 35-40% of our students are female - which is great."

□□□□

Blue Chip's fleet includes 12 Cessna 172s, a Piper Arrow and a Beech 55 Baron. It is also "experimenting" with a South African Sling aircraft.

The school has an accredited in-house

examination centre, an Alsim ALX flight simulator, which is accredited for the maximum hours for licences and ratings, as well as instrument rating renewal. It permits flight management systems, glass cockpit, multicrew cockpit, and jet transition training.

□□□□

"There is a steady growth in aviation training in Africa and people like to come to us as we have the right infrastructure and we are much better equipped than other African countries," said Lourens.

"Another reason is that we are much cheaper, especially for students coming from outside of Africa."

The school also works with FlyJetstream, and together they have introduced a training concept that provides students with the opportunity to shadow an experienced pilot on a charter flight.

"This is great experience as we cover a lot of destinations in aircraft from King Airs to PC12s and BBJs," said Marius Bergh of FlyJetstream.



Bell turns its focus to Africa

John Garrison, Bell Helicopter's president and chief executive officer, explains to **Jon Lake** why Africa is an important focus for the company's attention.

Bell Helicopter was at AAD with a new model and a positive belief in the company's prospects in the region.

"We subscribe to Honeywell's growth schedules and forecasts, and in the total African region they're forecasting a growth of about 2,000 to 3,100 helicopters over the next 20 years," said CEO John Garrison.

"Obviously, political uncertainty could have an impact on this figure, but with some degree of stability we think that this is something that can be achieved. We're investing in our product, people and service so that we can participate in that growth as it occurs over the next decade."

Garrison accepted the observation that Bell was entering an exciting new phase in its 79-year history, developing helicopter designs that were genuinely new and that no-one could characterize as derivatives of existing product lines.

This was after a period where Textron had kept a very tight hold on the purse strings when it came to investment, forcing Bell to be more conservative with new product offerings.

Garrison placed these developments firmly in the context of the company's strategic priority to grow what he called a balanced business; making investments in the company's military, commercial and aftermarket service and support businesses.

□□□□

He contended that the strategy was already working both globally and regionally, and that sales were "growing faster than the underlying rate of the market place".

"A key tenet of that strategic priority is to make sure that we offer a differentiated product and service to our customer, because that's how you win," he said.

"We've been in the market a long time (75-plus years), and we've been intently listening to the voice of the customer. As well as the significant investments that we're making in our product and our product portfolio, we have been making investments in our sales and marketing team, to win back a market position."

Garrison explained that Bell currently had less than 40% of the market share in South Africa but said the company had been investing in the region to support its customers and to win new business, investing in more sales personnel and product support engineers in the region.

Bell Helicopter has three regional sales managers, three regional sales representatives, one customer support and services representative, and two customer service engineers dedicated to Africa, backed up by the product support engineering team based at Mirabel (near Montreal in Canada) and by the slightly closer Amsterdam Supply Centre, which also has dedicated account managers for urgent needs.

Middle East to host African aviation summit

A new major event incorporating the whole Africa aviation spectrum is being held in Dubai. We find out why.

Times Aerospace – publisher of *African Aerospace* and *Arabian Aerospace* magazines – has launched Aviation Africa 2015, a senior-level conference and exhibition that will cover the whole aviation industry, from air transport to business aviation.

The event will be held on May 10-11, 2015 at Le Meridien Airport Hotel in Dubai.

“There was a lot of initial surprise when we first announced that the event would be staged in the Middle East rather than on the African continent,” said publisher Mark Brown. “But we had talked to a lot of people and we were aware from first-hand experience of some of the difficulties of getting from one African country to another, as well as a number of visa issues.

“Most African countries now have links with the UAE and we are delighted that the continent’s largest carrier, Ethiopian Airlines, has come on board and will be providing discounted fares for delegates flying from Africa on the award-winning airline.”



Times Aerospace is organising the event in conjunction with the Access Group in the UAE and AeroComm in the UK. The event will be chaired by Times Aerospace editor-in-chief, Alan Peaford.

“While there is competition between Middle East businesses and carriers and their African counterparts, there is also much co-operation and a lot of lessons to be learned too,” Peaford said.

“Many of the challenges that face Africa are the same as have been faced over the past couple of decades by the Middle East. There was a time when the world laughed at the aspirations of the Gulf carriers and the airport companies in the region. Today they are among the most admired in our industry. It wasn’t that long ago that business aircraft manufacturers ignored the potential private aviation market and there was a real lack of parts, infrastructure and after-market support. Now that has all changed.

“In Africa today, I hear many of the questions about development that I heard then. It felt like a good idea to see if we could bring some case studies that might help to short-cut problem-solving and enable people to learn from the Middle East’s experiences.”

The event will see leaders from African and Middle Eastern airlines and the top professionals from the business aviation industry, as well as leading financial organisations, manufacturers and aviation support businesses, attending.

“We have been talking to the main organisations, such as the African Airlines Association (AFRAA), the African Business Aviation Association (AfBAA) and the Arab Air Carriers Organisation (AACO),” Brown said. “We have also spoken to government ministers and to civil aviation authorities. Not only will this be a fantastic opportunity to learn more about the challenges and the great prospects facing Africa, there will also be a tremendous number of networking opportunities.”

The summit will include case studies and top-level panels, while exhibition space is already being snapped up. “We have been thrilled with the support we are already seeing from the industry,” Brown said.

Nexus, from Saudi Arabia, and Wyvern Consulting, from USA, have been named as the main sponsors.

Nexus, which launched in 2010 and is based in Jeddah, has opened a regional office in Rwanda and has already identified the opportunities the region can offer.



Wyvern Consulting has been providing safety intelligence data and onsite risk assessments to business and private aviation communities for more than 20 years and has partnered with Nexus for the Middle East, Asia and Africa regions.

A key focus area of the two-day summit will be the safety challenges in the region.

“African airlines, business aviation, airports and ground handling are all facing huge growth pressures and, as we know, there have been issues over safety,” said Peaford.

“There is a lot of good work been done by the African industry and I believe this summit will explode some myths but also allow some examples of how the successful players have managed things like human performance, especially as meeting the growth demands will inevitably require a multi-national workforce or a whole different emphasis on education.”

The Middle East has also been investing in African infrastructure and developing partnerships across the continent. “There is a lot of interest from the financial and investment community,” Brown said.

The summit will also be marketed to countries outside the region that have identified Africa’s growth potential.

“The US Congress has put African investment as a priority, China has already been investing and recently Brazil, the UK, and other European countries have been showing interest,” explained Brown. “We believe this event will give an introduction to the growth prospects and the challenges in an open and comfortable environment.”

“While there is competition between Middle East businesses and carriers and their African counterparts, there is also much co-operation and a lot of lessons to be learned too.”

ALAN PEAFORD





AfBAA

AFRICAN BUSINESS AVIATION ASSOCIATION



JOIN AfBAA.

LEAD BUSINESS AVIATION IN AFRICA

www.afbaa.org

info@afbaa.org

 /AfricanBAA

 @africanbaa

Join our  group

all in a day

PEOPLE / PERSONNES

Wynand Meyer

1

■ What challenges do UAS face in ground handling and trip support within Africa?

We deal with almost every aspect of flight support including landing and permits, ground handling, flight planning etc. The one challenge that seems to have an impact on all of our operational segments is infrastructure – telecom infrastructure, equipment, quality and availability at airport.

Insufficient equipment and lack of skilled ground staff and procedures contributes to the delays we face on the ground, which is an unnecessary expense.

It is extremely difficult to communicate with local agents due to both telecommunication failures and linguistic barriers, while electrical outages and infrastructure failures, that you simply would not encounter elsewhere, cause diversions and have severe financial impacts.

Public access to information is also limited. Notice to airmen (NOTAMS) and other information are often out-of-date, so we have to be proactive and take precautionary measures to avoid complexities.

We frequently make contact with the airport to find out their operational information as well as the handling agents to ensure they have the equipment on the ground that we require.

One of the reasons why infrastructure is lagging is due to the lack of a competitive environment.

2

■ What type of customer do you attract in the region?

Our customer base is not limited to any type of operator; we are known to take on any flight no matter the size of the aircraft or type of operations. Our clients vary from Royal families, heads of state, airlines, private business operators, corporate aircraft, charter, cargo flight and even the small single-engine general aviation clients.

3

■ What role does UAS play in improving the African market?

We found that the only way we could achieve a harmonised level of service across our geographic and operational segments was by being physically present on-site.

In the last years, we have hired and trained local African staff and stationed UAS supervisors in airports across Africa; we are now present in South Africa, Nigeria, Kenya, Côte d'Ivoire, Ghana, Gabon, Cameroon, Ethiopia and Mali.

Our local support staff oversee the quality, safety, and on-time delivery of requested services.

We are constantly informed in real time of delays, equipment or fuel shortages, and any minor/major deviation from the trip plan.

4

■ What is your background within the industry?

I have accumulated more than 17 years experience in aviation. My career has taken me throughout Africa, the Middle East, Europe, the USA and India.

In 2003 I took over the management of a newly acquired company – Aerospace Handling International in Johannesburg. It was a supervisor company for Africa, servicing international charter, corporate and private flight departments.

In 2008, I joined Jeppesen overseeing its Africa, Middle East and India ground-handling network based in Dubai.

In 2013 I joined UAS International Trip Support as regional director for Africa to oversee the company's interests and develop its physical presence in Africa.

5

■ What does a typical day involve for you?

With the overall management and having three regional offices, it takes careful planning each day.

I start my day checking my phone for e-mails and scanning through those received during the night. I feel this helps me ahead of time, knowing what to expect before going to the office.

With a great management team supporting me, we conduct daily briefings each day to discuss the current flight operations, financials and other aspects of the business.

I like to regularly walk from desk to desk to talk to my staff to build a personal relationship with them. I believe in an open door policy, I find this gets the staff to open up to you and naturally produce better results for the business.

Marcelle Nethersole
speaks to the director business development Africa at UAS.

“ It is extremely difficult to communicate with local agents due to both telecommunication failures and linguistic barriers. ”



engine mro services



you fly, we care

iss@itp.es | www.itp.es

PW100



PW200



F404



CT7-B/T700



CT7-5/7/9



TPE331



TFE731



M250

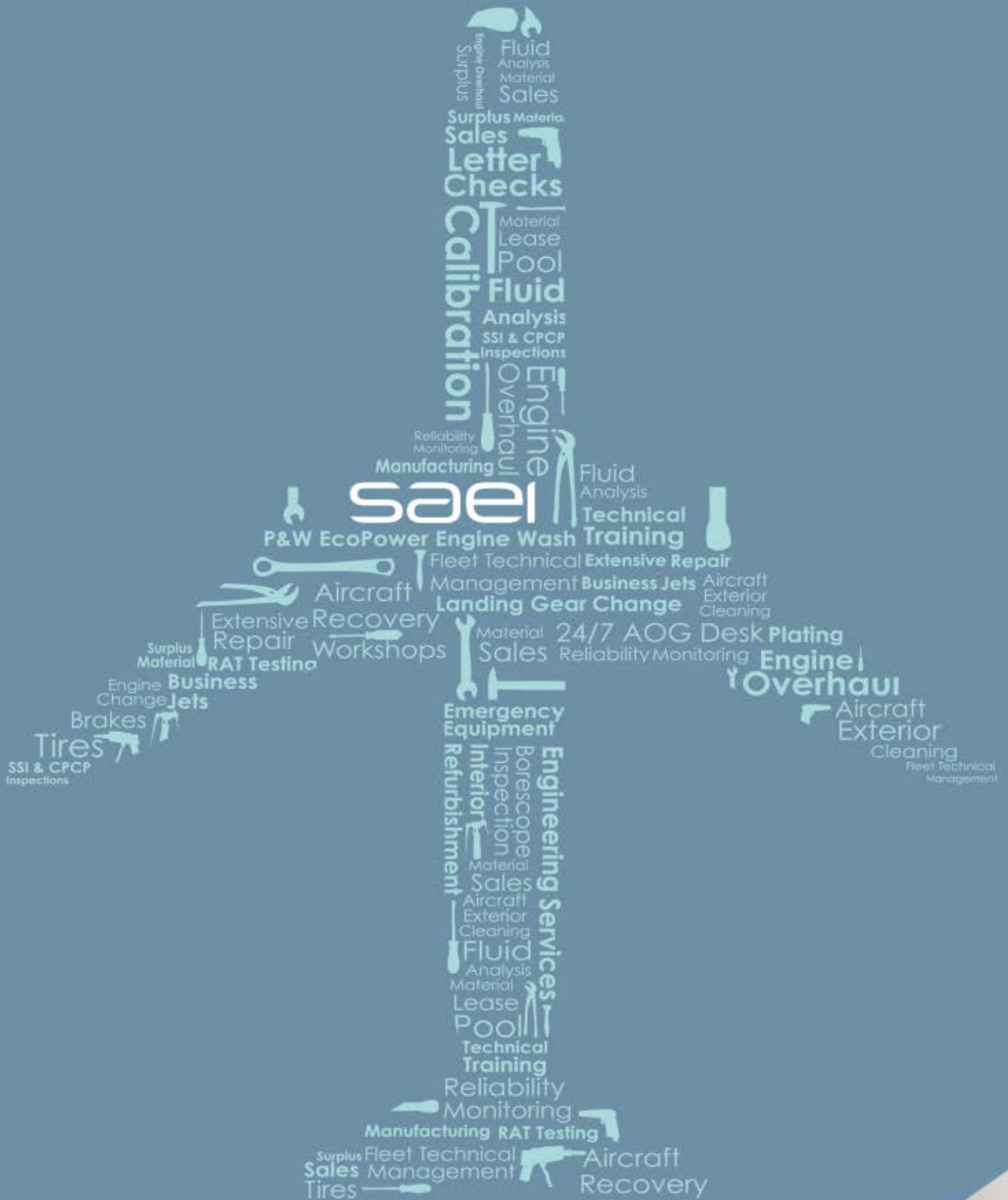


RR300





السعودية لهندسة وصناعة الطيران
Saudia Aerospace Engineering Industries



Tel : 00966 12 272 9491
Fax: 00966 12 272 9493
Website: www.saei.aero
Email: sales.marketing@saudiamro.com