



# AFRICAN AEROSPACE

THE MAGAZINE FOR AEROSPACE PROFESSIONALS IN AFRICA

[www.africanaerospace.aero](http://www.africanaerospace.aero)



## GAMBIA'S BIG BIRD IN SAFE HANDS

« Une équipe de rêve chez Gambia Bird »

**PAGE 26**

### DEFENCE

Paramount  
presents  
an African  
premiere  
**PAGE 43**



### AIR TRANSPORT

EgyptAir on  
handling the  
fleet planning  
in a crisis  
**PAGE 31**



### GENERAL AVIATION

Rhino lift  
is fair  
game for  
helicopters  
**PAGE 57**



*CRJ NextGen*

# RESULTS SPEAK

CRJ NEXTGEN  
DELIVERS THE  
INDUSTRY'S BEST  
ECONOMICS



**Bombardier's CRJ Series continues  
to be the most successful regional  
aircraft family in the world.**

.....

The *CRJ NextGen* family delivers industry-leading results to operators in over 50 countries, with up to 15% lower operating costs\*, up to 16% better fuel efficiency\*, enhanced passenger comfort and lower emissions – making it the right aircraft for today, and for the future.

[www.crjnextgen.com](http://www.crjnextgen.com)

\*Versus average in-production 100-seater aircraft.  
Bombardier, NextGen and CRJ900 are Trademarks of Bombardier Inc. or its subsidiaries. ©2013 Bombardier Inc. All rights reserved.

**BOMBARDIER**  
the evolution of mobility

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](http://www.africanaerospace.aero)

**Directors:**  
Mark Brown & Kevin Sammon

**Publisher:**  
Mark Brown  
[mark.brown@africanaerospace.aero](mailto:mark.brown@africanaerospace.aero)

**Display Advertising:**  
Brian Whelan  
[brian.whelan@africanaerospace.aero](mailto:brian.whelan@africanaerospace.aero)

**Production Coordinator:**  
Claire Silva  
[claire.silva@africanaerospace.aero](mailto:claire.silva@africanaerospace.aero)

**Circulation Dept:**  
Ryan Everitt  
[ryan.everitt@africanaerospace.aero](mailto:ryan.everitt@africanaerospace.aero)

**EDITORIAL**

**Editor-in-Chief:** Alan Peaford  
**Deputy Editor:** Ian Sheppard  
**Air Transport Editor:** Victoria Moores  
**Air Transport:** Alan Dron,  
Martin Rivers, Keith Mwanalushi  
**Cargo Editor:** Tom Pleasant  
**Defence:** Jon Lake, Frederic Lert, Claire Aphthorp  
**Business Aviation Editor:** Liz Moscrop  
**Technology & Space Editor:** Steve Nichols  
**Aircraft Interiors:** Ella Nethersole  
**Events Editor:** Kelly Green  
**Airports:** Keith Mwanalushi  
**News team:** Steve Knight,  
Marcella Nethersole, Kelly Green,  
**Southern Africa editor:** John Miller  
**French Speaking Africa:** Thierry Dubois,  
Vincent Chappard (Mauritius), Frederic Lert  
**Contributors:** Terry Spruce,  
Jamie Hunter, Kelly Clark, Alex Fox  
**Picture Editor:** Ian Billingham  
**Photographers:** Mark Wagner,  
Tom Gordon, John Miller  
**Design:** Chris Murray  
**Sub Editors:** Steve Knight, Kelly Green  
**Production:** Rick Haden

**Editorial head office:**

Aerocomm Ltd, The Gatehouse, 104 Lodge Lane  
Grays, Essex, RM16 2UL UK.  
Tel: +44 (0)1375 427014 Fax + 44 (0)1375 404478

**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.

## Why compulsory IOSA should end Africa's safety stigma

**A**viation could be a generator of wealth to Africa and satisfy a growing middle class. But as you will see as you read this issue, there are a number of challenges that are stopping this from happening.

The big elephant in the room is undoubtedly safety.

The 2012 global accident rate for Western-built jets was the lowest in aviation history, according to the statistics released by the International Air Transport Association (IATA) in January.

But according to IATA's director general Tony Tyler, Africa is still the worst performer by a large margin.

While the global figure for hull loss rates was 0.20, the equivalent of one accident every five million flights – or put another way, if a passenger was to fly every day it would be 13,500 years before they would face this kind of accident – Africa's accident rate for all aircraft types more than doubled from the 2011 figure of 6.17 to 12.44 accidents per million flights in 2012, IATA said. There were 13 aircraft accidents on the continent last year up from eight in 2011.

And the terrible fatal tragedy in DRC in March adds to the concerns of the industry and the travelling public.

"Africa is a continent divided on performance. Airlines on the IOSA (IATA Operational Safety Audit Registry) are performing at or above industry average rates. But the continent's performance is far from satisfactory. It should be as safe to travel by air in Africa as it is in any other part of the world," Tyler said.

In May last year, IATA, and the International Civil Aviation Organisation (ICAO), committed to an Africa Strategic Improvement Action Plan aimed at addressing safety deficiencies and strengthening regulatory oversight in the region by 2015. The plan



was endorsed as part of the Abuja Declaration by the AU Ministerial meeting on Aviation Safety and Security in July and endorsed at the AU Assembly. "Stakeholders are united in their commitment to bring all of Africa to world-class safety levels through the adoption of global standards. Passage of the Abuja Declaration is a key step along this path," Tyler said.

Critical to the success of this plan is mandatory adoption of IOSA by African states. Airlines on IOSA experienced zero Western-built jet hull losses during the year under review.

IATA brings its annual general meeting to Africa in June. All of the world's major airlines will convene in Cape Town. This is the time that once and for all, African airlines should stand up, commit to IOSA across the board and once and for all end the stigma that affects the continent's aviation future and the safety of its people.

**Alan Peaford**  
Editor in Chief

**COVER: Gambia Bird CEO Thomas Wazinski. Picture: Siaka Charreh.**

## Advertisers

Airbus	2, 3	MTU Aero Engines	35
ARINC	17	Multi Service Aero	58
Atlantic FuelEx	18	NEXUS	4
BAE Systems Regional Aircraft	49	Nigerian Aviation Handling Company Plc	73
Bestfly Flight Support	54	Pan Am International Flight Academy	45
Bombardier	77	RwandAir	6
CAE	54	SAA Technical	60
Dassault Falcon	18	Sabre Airline Solutions	30
Egypt Air Maintenance & Engineering	77	Saudi Aerospace Engineering Industries	OBC
Embraer Commercial Jets	78	Spatial Composite Solutions FZE	11
Embraer Defense & Security	21	Spectrum Aeromed	46
Embraer Executive Jets	13	Turkish Aviation Academy	8, 9
Evergreen Apple Nigeria	10	Universal Weather and Aviation	51
Flightpath International	59	World Food Programme	67
FlightSafety International	82		
Fly Aviation Services	33		
FLYHT Aerospace Solutions Ltd.	25		
GHS Aviation Group	14		
Iberia Maintenance	70		
Jetcraft Corporation	63		
JETSTREAM Aviation Academy	56		
Maximus Air Cargo	81		
	71		

African Aerospace magazine is published in partnership with AFRAA



African Aerospace magazine is published with the support of AfBAA



lovea380.com



And us, US380 and the project are being managed and funded jointly.

Higher load factors. Lower costs. When will your revenues profit from the A380?

Operators love the aircraft that passengers love to fly.



Airbus A380. Love at first flight.



**AIRBUS**

AN EADS COMPANY

# nexus



INTERNATIONAL SECURITY, INC.



## 11 business brief

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

### AIR TRANSPORT

#### 19 Cash and Carriers

South African Airways continues to dominate the domestic airline strategy in its own market and the lawyers are cashing in.

#### 22 Partnerships from Paradise

Air Mauritius is looking at developing strategic partnerships that will enable it to achieve its growth ambitions.

«Les importantes restructurations du secteur aérien ont vu Air Mauritius renouer avec les bénéfices.»

### COVER STORY

#### 26 Bird strikes

Africa's newest flag carrier overcomes obstacles thanks to some German efficiency and a national will to succeed.

«Gambie Bird, compagnie aérienne de l'ouest africain, a franchi beaucoup d'obstacles depuis le lancement de ses services.»

#### 31 Revolution in crisis management

The Arab Spring created a challenge for airline strategy. We analyse just how well EgyptAir coped with the revolution in its fleet planning.

«Que faites-vous lorsque les événements bouleversent la stratégie de votre compagnie aérienne?»

#### 36 The Dreamliner nightmare

Everything was going well for Ethiopian Airlines and its new Boeing 787 arrivals...and then the battery crisis happened.

«Les problèmes du Boeing 787 sont un véritable casse-tête pour les transporteurs comme Ethiopian Airlines.»

#### 40 Fast and Furious

The start-up success of Tanzanian-based Fastjet hit a temporary buffer as legal challenges interrupted the growth surge.

### PEOPLE

#### 42 Lady on a mission

Tanzanian aviation gets its first woman CEO and Sauda Said Rajab has clear plans to prove she is the right person for the job.

«Sauda Said Rajab vient de marquer l'histoire de l'aviation de la Tanzanie.»



Continued on Page 7

## TRAINING

#### 74 CATCHING THE LOCAL TRAIN

Airlines based on Africa's Indian Ocean islands are creating their own training bases to develop both cabin and flight deck crew.

«La formation du personnel navigant est devenue un enjeu stratégique pour les compagnies aériennes africaines.»

#### 78 FIRST FOR FLIGHTSAFETY

Maintenance engineers across Africa can now achieve international standard certification while staying on the continent.

#### 79 SPRINGBOK SPRINGBOARD

Aggressive marketing and a stable political culture has helped South Africa take a leading role in flight training.

«Les stratégies qui ont rendu les centres de formation sud-africains très attractifs pour les compagnies aériennes.»



## AIRPORTS

#### 83 TAKING IN THE TECHNOLOGY

Arinc introduces the latest in airport technology to Kenya and Egypt.

«ARINC a connu ce qu'un dirigeant de l'entreprise décrit comme son "premier succès important en Afrique.»

#### 84 ISLAND APPROACH

Mauritius celebrated its national day with the arrival of its first A380 – and prepared with the opening of its new airport terminal.

«L'île Maurice a inauguré le nouveau terminal de son aéroport international lors la fête nationale du pays le 12 mars dernier.»

#### 88 EXPANDING FOR LANDING

Airport building and upgrades are high on the agenda for African nations. One conference in South Africa focused on why expansion is vital.



A journey of comfort. A journey of serenity.  
A journey of opportunities.  
**A journey that connects  
from the heart of Africa**



RwandAir is dedicated to connecting you better each time, to more destinations in the world right from the heart of Africa.



**RwandAir**

*Fly our dream to the heart of Africa.*

T&C apply. All prices inclusive of taxes

[www.rwandair.com](http://www.rwandair.com)



## DEFENCE

### 43 Paramount puts Africa in the picture

The first aircraft to be wholly designed and built in Africa.

### 46 From Russia with Love

Across the African continent there are hundreds of Russian-built helicopters plying their trade in the field of national defence. We look at the market.

### 49 Angola's dual touch

Combining light attack with advanced training sees Brazil's Super Tucano at work in Angola.

## BUSINESS AVIATION

### 50 Wealth of opportunity

Africa's high wealth individual numbers has grown as has the opportunities for business aviation. AfBAA is making plans to meet those needs.

### 53 Mission possible

An aircraft built for missionaries is now ready for VIPs to capture that Kodiak moment.

### 55 Fuelling a new wave

Nigeria and West Africa has new fuel options as a special offer comes from the Atlantic.

## GENERAL AVIATION

### 57 Haul of the Wild

Heavy lift challenge for one pilot to bring a rhino to safety from the hands of the poachers.

## MAINTENANCE

### 61 MRO Fast track

How Sabena Technics is building from its Tunisian base to reach out for more African maintenance deals.

«Le spécialiste de la maintenance poursuit son développement en Afrique, malgré quelques obstacles.»

### 64 Ahead in the cloud

How the computing cloud will bring benefit to African maintenance operators.

### 66 Help at hand

One Russian company is aiming to help supply the vital parts to keep Africa's Russian-built helicopters safely in the air.

«AviaHelp, fournisseur de pièces de rechange pour des hélicoptères russes, souhaite se développer durablement.»

## CARGO

### 68 Freight Expectations

Demand for Africa's riches is stimulating a rush of cargo operators to the continent – and with them comes investment in assets and people.

«La création de richesses en Afrique continue d'encourager la venue d'opérateurs de fret sur le continent.»

## PEOPLE

### 104 All in a Day

We meet Execujet Nigeria's CEO Peter de Waal and find out what makes him tick.

## TURBOPROPS

### 90 TOP OF THE PROPS

ATR's turbo prop passenger aircraft is finding a home across Africa. We look at the operations for the type.

### 92 CEO'S STORY

ATR's CEO Filippo Bagnato explains why the turboprop is perfect for Africa.

### 94 THE SOUND OF SILENCE

The "quiet" turboprop making a big noise as African carrier's look to Bombardier's Q400 to meet new demands.



## MANAGEMENT

### 96 OPEN FOR BUSINESS

Many African nations talk about Open Skies – but bilateral service agreements can still get in the way.

### 99 WHY AFRICAN AVIATION KEEPS STALLING

Industry expert Sudeep Ghai investigates the challenges that keep putting the brakes on African aviation's take off.





# TURKISH AVIATION ACADEMY

*Your Global Training Partner*



- *EASA 147 Approved Training Organisation*
- *IATA Trainings*
- *Aviation English*
- *Flight Phobia Programme*

TURKISH AIRLINES 

A STAR ALLIANCE MEMBER 

[www.thyaviationacademy.com](http://www.thyaviationacademy.com)  
[aviationacademy@thy.com](mailto:aviationacademy@thy.com)



Regional  
Training Partner



Authorised  
Training Center

edexcel  
Approved Centre



TRAINAIR  
PLUS



# Turkish Aviation Academy is now certified by EDEXCEL

Our Academy is accredited by EDEXCEL, the largest rating agency of the United Kingdom, and known for its motto "excellence in education".

EDEXCEL develops vocational training opportunities through curricula drawn up for specific industries and levels, with the expectations of the business world in mind.

This accreditation not only certifies the compatibility of the training programs offered in our Academy with international quality standards, but also provides the participants of the program with certificates recognized in the business world and by universities. The accreditation provided by EDEXCEL grants the Aviation Academy programs the status of "EDEXCEL ASSURED".

Our Academy has also achieved the capability of offering the program "Level 4 Certificate in Aviation Operations on the Ground" within the framework of EDEXCEL. This program covering numerous fields regarding ground services for aviation industry comprises the topics such as health, safety, cargo transportation, and flight operations. The graduates of this certificate program receive internationally recognized professional qualifications. Since the levels and credits representing professional qualification are compatible with European Qualification Framework, they provide career opportunities both in Turkey and abroad.

**edexcel**   
Approved Centre



## COMFORT IN A CLASS ABOVE

Luxury has a new name. We call it the Legacy 650. With intercontinental range and three distinct cabin zones, you can work, rest, and then work again. Put comfort and style high on your next meeting's agenda. Find out more about the ultimate in luxury at [EmbraerExecutiveJets.com](http://EmbraerExecutiveJets.com)

Latin America +55 12 3927 3399, U.S., Canada and Caribbean +1 954 359 5387,  
Europe, Middle East and Africa +44 1252 379 270, China +86 10 6598 9988,  
Asia Pacific +65 6734 4321

FOR THE JOURNEY

 **EMBRAER**  
*Executive Jets*

## Air Algeria opts for Dreamliners

The Algerian government has given the go-ahead for Air Algeria to move ahead with its plans for purchasing new aircraft as part of a bid to get the North African carrier competitive with other carriers.

The airline – which is state owned – has been starved of investment for several years but has won over the government to invest in the airline as the country attempts to regenerate its tourism business and international relationships.

Analysts in North Africa, however, were surprised that the Algerian government did not move towards the open skies policy that had been hinted at when the country hosted the Arab Air Carriers Organisation (AACO) annual general meeting in Algiers in November.

Algerian media reported that both the domestic liberalisation and the open skies agreements had been put on a back burner by the government.

The airline has primarily been a Boeing customer with 23 Boeing 737s and three B767s. It has three Airbus A330s and a dozen ATR-72s, which it uses for shuttle flights to the country's main oil and gas fields.

Analysts suggest that Air Algeria has already been in talks with the American manufacturer for eight B787-8 Dreamliners and,



## Film star Gypsy finds new home in Kenya

The aeroplane that featured in the 1985 seven-time Oscar-winning film *Out of Africa* has a new home in Kenya. It was sold in February at the Bonhams auction at the Grand Palais in Paris, France.

The 1929 American Moth Corporation De Havilland 60GMW Gipsy Moth bi-plane, which featured in the Sydney Pollack-directed movie starring Meryl Streep and Robert Redford, sold for around \$262,000 to an anonymous telephone bidder at the auction, held during the capital's Rétromobile week.

The sale set a new world record for a Gipsy Moth.

The plane is in excellent condition with a permit to fly, and still wears its yellow-and-black livery and registration G-AAMY (in homage to pioneering English aviatrix Amy Johnson) as seen in the movie.

The DH-60 Moth measures 24ft long by nearly 9ft high (7.3 metres by 2.7 metres), and has a 30ft (9 metre) wingspan. It is capable of a maximum speed of 105mph (169km/h).

despite the current issues with the aircraft, the airline is ready to sign a deal.

## FastJet announces Jetlink partnership

FastJet has announced that it has signed a memorandum of understanding (MoU) with Kenyan airline Jetlink.

Under the terms, FastJet and Jetlink are working together to create a joint venture, which will give a platform for the launch of the FastJet brand in Kenya.

Jetlink has traffic rights to all domestic destinations in

Kenya, as well as a number of regional destinations. Its operations have been temporarily suspended since November 2012 while the company is restructured.

## Bridge is BAE Systems head

BAE Systems has announced the appointment of a new regional managing director for Africa and the Middle East.

The former vice president for Africa, Ben Bridge, has been named as the successor to Simon Keith and now has overall responsibility for

BAE Systems' activities throughout the Gulf region and Africa. He will be based in Abu Dhabi at the company's regional headquarters.

## Ethiopian approved for CFM56 overhaul

Ethiopian Airlines' maintenance arm has been approved to overhaul CFM International CFM56-3 and -7B engines.

General Electric assisted Ethiopian MRO Services to develop its capabilities over the past three years and the airline group has

invested more than \$20 million to expand the engine shop, upgrade the existing test cell, and update necessary tools and machinery.

It now has full overhaul capability for legacy Boeing 737-300/400/500s, as well as current generation 737s, under a support agreement with the engine manufacturer.

The 12,000sqm (129,000sqft) facility has been certified for CFM56 overhaul by the Ethiopian Civil Aviation Authority and the FAA.



## PRE OWNED A320 EVACUATION TRAINER FOR SALE

IN NEED OF REFURBISHMENT. SOLD 'AS SEEN' OR CAN BE UPGRADED AS REQUIRED. SHIPMENT EX DUBAI. VERY REASONABLE PRICE. ALSO NEW A320 AND B737NG DOOR TRAINERS (ONE OF EACH) FOR SALE.



T: +971 7 2434495 | F: +971 7 2434496  
M: +971 50 6259024

[www.spatial-composite.com](http://www.spatial-composite.com)

## Africa's improved satellite coverage

Africa will get improved satellite coverage when Astrium's Alphasat is launched from French Guiana later this year.

The 1-XL programme has reached a milestone with the successful completion of the major testing stage.

Alphasat is a high-power telecom satellite built by Astrium through a public-private partnership between the European Space Agency (ESA) and UK satellite operator Inmarsat.

Weighing more than 6,600kg, it is based on the new European Alphasat telecommunications platform developed by Astrium and Thales Alenia Space under joint contract from ESA and the French space agency, CNES.

The Alphasat mission will extend Inmarsat's current L-band broadband global area network (BGAN) services, providing an additional 7 MHz of spectrum over Europe, the Middle East, Africa and parts of Asia, from its 25-degree East geostationary orbital position.

Alphasat's launch is planned for this summer aboard an Ariane 5 from Europe's spaceport in French Guiana.

## Chapman Freeborn wins charter award

Chapman Freeborn has been named the air charter provider of the year in Africa for the second time, after being nominated by freight forwarders and cargo airlines.

The announcement was made at the Air Cargo Africa 2013 event held in Johannesburg, South Africa.

Chapman Freeborn was the first international aircraft charter company to establish a presence in



## British aircraft supports African mission to Mali

**A Royal Air Force C17 aircraft has flown troops from Ghana to Bamako as part of the UK's support for the international intervention in Mali.**

**The transport aircraft carried more than 120 members of Ghana's Engineering Company 1 to Mali's capital with vehicles and equipment.**

**They will build accommodation and support engineering projects as part of the African-led international support mission to Mali (AFISMA).**

**The UK, concerned by the situation in Mali and the threat posed by violent extremist groups in the north, responded to a**

**Ghanaian request by making a C17 aircraft available.**

**The UK has been a firm supporter of the UN Security Council resolutions on Mali, as well as regional leadership from the Economic Community of West African States (ECOWAS) and the African Union and EU.**

**As well as providing logistical support and C17 aircraft to support the French-led intervention in Mali, the UK also offered up to 40 personnel for the EU training mission to Mali and up to 200 personnel in support of the African-led support mission. Negotiations are continuing on the details of the UK's contribution.**

Africa – opening its first office in Entebbe, Uganda in early 2009.

Ten months later it established a second location in Johannesburg, South Africa – providing the full range of cargo aircraft and passenger air charter services.

Chapman Freeborn also won the accolade at the inaugural awards in Nairobi in 2011.

## Bombardier begins Morocco production

Bombardier Aerospace has announced the start of production at its transitional facility in Morocco in February.

Following a graduation

ceremony at the Institut des Metiers de l'Aeronautique (IMA), 18 new local aircraft assemblers began production of the first Bombardier components to come out of its Moroccan manufacturing facility.

Bombardier announced its intention to build a manufacturing facility in Morocco in November 2011.

The company has extended its timeline for construction of the new facility as the manufacturing plan evolves. In order to maintain the timeline for production, Bombardier set up operations in a transitional facility located at the Mohammed V International Airport in

Nouaceur in the Greater Casablanca region, near its future permanent facility. The Bombardier Aerospace transitional manufacturing facility in Morocco is currently producing simple structures, including flight controls for the CRJ Series aircraft. By year-end, the facility is expected to employ approximately 100 fully trained aircraft assemblers.

## Libya signs with Lufthansa Systems

Libyan Airlines has selected a comprehensive package of aeronautical solutions from Germany's Lufthansa Systems. The two companies signed a five-year contract for the

Lido/Flight flight planning solution, as well as the Lido/RouteManual and Lido/eRouteManual navigation charts.

Lido/Flight covers all aspects of flight planning and provides dispatchers with many optimisation options regarding flight time, fuel consumption or costs of each flight.

## Perfect Precision

Tanzania's Precision Air Services recorded a 13% growth in passenger numbers between April 2012 and the end of January 2013, increasing from 663,636 the previous year over the same timeframe to 750,762.



Our area of expertise is large.  
Our solutions are custom-made.

With a growing presence in the global market, Embraer Defense & Security is a company that has strategic partnerships to develop integrated solutions in defense and security. Our customized technology allows for an efficient performance on land, sea and air. After all, protecting people, territories and assets is our mission.





# MAKE EVERY FLIGHT A SAFE FLIGHT WITH AFIRS

Join the 40 operators worldwide that use FLYHT's Automated Information Reporting System (AFIRS) for real-time connectivity and situational awareness of their aircraft in flight, and on the ground.

Unlike other satcom systems, AFIRS provides a *full data service* to improve your safety and efficiency. With over 30 transport category STC's we will get you up and running quickly!





## North African air travel on the up

The major air travel markets across north Africa are continuing to increase frequencies and capacity, but are yet to recover to pre-Arab Spring highs, according to the latest statistics from aviation data and analysis team OAG.

The OAG frequency and capacity trend statistics (FACTS) report for March showed that one of the strongest performers over the last 12 months has been Libya, which was expected to see frequencies and capacity rise in March 2013, compared to the same month in 2012.

Elsewhere in the region, Algeria was also predicted to see solid growth in March 2013, with international flights increasing by 15% and seats by 16%, while Egypt, Morocco and Tunisia added 154,000, 122,000 and 85,000 international seats respectively.

Eastern Africa was the only other African region to see an increase both to/from and within capacity in March 2013 versus March 2012.

However, there were declines of 6% and 3% in seats within southern and central/western Africa, meaning that overall seat capacity within Africa as a whole remained flat in March 2013 against the same month in 2012.

## Cape Town sees the light

Airports Company South Africa has selected ADB Lighting Technologies to upgrade the aeronautical ground lighting at Cape Town International Airport.

ADB will supply and install its new all-direction (AD) lights for the runway centreline, touchdown and taxiway centreline; and new elevated runway edge lights



Sir Arumemi-Ikhide and Prince Bayero at the signing.

## Domestic lease deal opens freight path in Nigeria for Touch

Emirate Touch Aviation Services is wet leasing two 737-300 aircraft from Nigerian carrier Arik Air for its cargo operations.

The aircraft, crew, maintenance and insurance (ACMI) agreement was signed in Lagos by the chairman of Arik Air, Sir Joseph Arumemi-Ikhide and director general of Emirate Touch Aviation Services, Prince Isa Bayero – the son of the 11th Emir of Kano state.

Under the terms of the agreement, Arik Air will leasing the two B737-300 aircraft (5N-MJA and 5N-MJB) to Emirate Aviation Services for cargo operations.

Speaking at the signing ceremony, Sir Arumemi-Ikhide said the event was significant because it marked the first time the airline was going into such an agreement with a Nigerian company.

"We are pleased with this lease agreement with Emirate Touch Aviation Services represented by our revered Kano Prince, Bayero. As a world class airline, our mission is to build alliances and partnerships and thereby increase capacity in the industry," Arumemi-Ikhide said.

Prince Bayero said he was elated to be going into this partnership with the leading indigenous carrier in Nigeria and hoped this will help increase capacity in the industry as envisioned by the founders of Arik Air.

"This is a landmark agreement that will stimulate the growth of cargo operations in Nigeria and points beyond," Prince Bayero said.

(EREL), as well as runway closure crosses, part of its 'green', energy-efficient, LED lighting portfolio.

The new closure markers will also allow easier airfield maintenance by allowing the airport staff to close commercial operations on the runway when needed.

## Landmark codeshare agreement signed

Air Seychelles and Airberlin have signed a historic codeshare agreement allowing customers from each of the two carriers to

fly seamlessly between Germany and Seychelles via Abu Dhabi.

The two airlines are both members of the Etihad Airways strategic equity alliance, with the Abu Dhabi-based airline holding a 40% stake in Air Seychelles and 29.21% stake in Airberlin.

The new codeshare arrangement will give European travellers immediate access to a total of 54 flights a week to Seychelles from four German hubs (Berlin, Düsseldorf, Frankfurt, Munich) on the combined

Airberlin, Air Seychelles and Etihad Airways network.

## Gambia Bird flies to new places

Gambia Bird Airlines has identified strategic route opportunities for flight options in west Africa and has introduced more destinations, routes and frequencies for business people, tourists, and domestic travellers.

One new direct route is Accra to Bamako, operated on Tuesdays and Thursdays.

The airline has also included additional frequencies from Banjul to Accra and Freetown to Monrovia.

## Etihad partners with Kenya Airways

Etihad Airways is to expand significantly its reach across Africa after signing a strategic commercial partnership agreement with Kenya Airways, the national flag carrier of Kenya.

Etihad will place its EY code on Kenya Airways flights from Nairobi to 27 destinations across Kenya Airways' network in Africa.

As part of the reciprocal codeshare agreement, Kenya Airways will place its KQ code on Etihad Airways' daily service from Nairobi to Abu Dhabi and, subject to government approval, onwards to up to 32 key destinations across Etihad's global network. Kenya Airways will also launch a new thrice-weekly service between Nairobi and Abu Dhabi from mid-summer 2013.

The agreement paves the way for greater collaboration between the airlines on the joint procurement of services for ground handling, line and heavy maintenance, training and cargo operations.

## 'Engage with staff' call for success

EgyptAir Maintenance and Engineering Company's Mohamed El Sherbiny called on African maintenance companies to engage with their staff if they are to develop successful businesses in the changing world.

He was speaking at the MRO Africa event in Addis Ababa, where the maintenance business and EgyptAir Training centre were participating.

## Ethiopian eyes aircraft orders

Ethiopian Airlines is evaluating a number of aircraft types as it works to boost its fleet from 58 to 112 aircraft under its Vision 2025 strategy.

Today the Addis Ababa-based carrier operates 54 aircraft, comprising five Boeing 777-200LRs, four 787s, 13 767-300ERs, four 757-200ERs, five 737-700s, eight 737-800s, nine Bombardier Q400s, along with a cargo fleet of two 777-200Fs, two 757-200Fs and two MD-11Fs, according to the latest fleet data shown on its website.

The carrier also shows firm orders covering 41 aircraft: 12 Airbus A350-900s, 10 787s, one 777-200LR, five 777-200Fs, two 777-300ERs, seven 737-800s and four Bombardier Q400s.

However, Ethiopian is planning to retire its older narrow- and wide-bodies, including its Boeing 767s, 757s and MD-11s, and replace them with more modern, fuel-efficient models.



## Ethiopian and Airbus host 'Little Engineer' workshops

Ethiopian Airlines and Airbus have partnered to host workshops for close to 100 students from schools in Addis Ababa. The workshops were conducted by The Little Engineer (TLE), an organisation dedicated to instilling an appreciation of science and technology among today's youth.

Airbus has announced a regional partnership with TLE as a result of on-going efforts to inspire and instil a passion for science and technology at an early age. It aims through this partnership to engage with more than 500 students in Africa and the Middle East in 2013.

This means it is looking to place orders to fulfil its long-term fleet plan, covering both replacements and future growth.

"We are evaluating mid-size passenger and freighter aircraft, such as the A330-200, A330-200F and also regional jets as

part of the on-going fleet plan study and aircraft evaluation process," said an Ethiopian Airlines spokeswoman.

The additional aircraft will be used to expand Ethiopian's network to new destinations in Asia, the Americas, Africa and

Europe. By 2025, Ethiopian is aiming to serve 90 international destinations, compared with 70 today.

to switch to a higher class of travel a few days before departure.

The service is available at a fee, conditional upon the acceptance of an offer made by the customer.

Eligible passengers may ask to upgrade to business class or premium economy directly through the airline's website after receiving an e-mail invitation from Air Mauritius 14 days before departure, or by making an offer through the contact centre from the day after buying their ticket.

All received offers will be evaluated between three and six days before departure based on several criteria, including seat availability.

## Bell 429 green light in Nigeria

Bell Helicopter has announced that the Nigerian Civil Aviation Authority has validated the Bell 429 for operation in Nigeria and endorsed the Bell 429 gross weight increase to 3402kg (7,500lbs).

Nigeria is the 15th country to approve the increased maximum gross weight for the Bell 429 based on Transport Canada's certification.

The additional 227kg (500lbs) of fuel and/or payload allows operators to take advantage of the aircraft's full capabilities.

## Mauritius bidding plan for upgrades

Air Mauritius has introduced an 'upgrade now' service to give its customers the opportunity

## IATA safety boost

The International Air Transport Association (IATA) announced that 2012's global accident rate for Western-built jets was the lowest in aviation history, but said more needs to be done to improve safety in parts of Africa.



## High-tech boost for Ivory Coast carrier

Air Côte d'Ivoire, the national carrier of Ivory Coast, has signed an agreement with ADS software to implement its AirPack fleet management system and logistics solutions.

AirPack is comprised of AirTime (fleet management - CAMO), AirStock (inventory control - logistics), AirDoc (documentation management), and AirUser (security management).

The airline becomes the 13th Africa-based

operator to implement the system, joining clients in Algeria, Morocco, Ivory Coast, Burkina Faso, Mali, Botswana, Mauritania and Sudan.

Air Côte d'Ivoire will utilise four of the six AirPack modules with the main focus being on the management of the fleet and the logistics side of its activities in accordance with Ivory Coast aviation authority (RCI) regulations and EASA airworthiness standards.



# ARINC

## We are committed to simplifying communications.

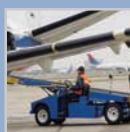
### **Complicated Type B Messages are History.**

With 80 years of aviation communications experience, ARINC 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, ARINC 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](mailto:emea@arinc.com) to discuss your messaging cost analysis.

[typebmessaging.com](http://typebmessaging.com)



ARINC, Pegasus One, Pegasus Place, Gatwick Road  
Crawley, West Sussex, RH10 9AY, UK  
+44 1293 641200 [emea@arinc.com](mailto:emea@arinc.com)

# *A Must for Thrust*



24/7 help desk: +971 4 255 66 26  
[fueldesk@atlanticfuellex.com](mailto:fueldesk@atlanticfuellex.com)

- All the benefits of working with a highly experienced company
- Quality Assurance of Aviation Fuel
- Customized Business Solutions

# Cash and Carriers

*Despite its eroding market share, South African Airways continues to dominate domestic airline strategy in its home country. Recent cash requirements to keep it afloat have also fattened the pockets of the nation's legal services. Dan Brightman reports.*



In February, South African independent airline, Comair, launched a High Court application against its government's \$560 million guarantee provided to national carrier, South African Airways.

Since its founding in 1946 by returning South African Air Force pilots, Comair has made consistent profits, largely because of its financially disciplined management philosophy.

It has been an example to the world's airline industry and has remained mostly free of political interference, unlike its branded industry colleagues that wear the nation's colours.

Comair is not South Africa's only profitable independent airline flying domestic and regional routes. It shares airspace with Airlink, run by shrewd and politically dextrous CEO, Rodger Foster.

Despite the power wielded by taxpayer-funded South African Airlines, both Comair and Airlink have managed to thread a precarious route to sustainability while faced with a seeming unlimited pit of cash provided to the government's wholly owned carriers, SAA and SA Express.

Comair's High Court application is not the only one currently fielded by the independent. However, it is a strong signal that the industry's struggle for profitability often bubbles to the surface during a period of several years where fuel price fluctuations present its biggest threat to survival.

With a strong regulatory environment, albeit one that is lacking effective leadership at the moment, airlines have explored every possible potential cost saving. There is no more room for streamlining maintenance and other potential variables and it appears the independent airlines

Continued  
on Page 20





CONTINUED FROM PAGE 19

are pushing aircrew flight and duty boundaries, as well as adopting a minimal fuel regime. Pilots among the independent operators are beginning to raise red flags about fatigue and stress issues and obligatory flight and duty exceedences are being filed with the South African CAA with increasing regularity.

Those flying regularly on South Africa's domestic carriers may have noticed that not every seat carries an in-flight magazine and that traditional comforts, like complimentary meals and beverages, are now only supplied against premium fares. Moreover, the concept of a South African low-cost carrier (LCC) has slowly migrated from clear-cut minimal standards to an almost single level of service – there's little to distinguish on-board standards between LCC and premium seats.

Those booking a franchised British Airways flight might find themselves on a kulula.com aircraft or vice-versa. Seat prices are now very similar between SAA's own branded prices, LCC subsidiary Mango Airlines and Comair in the guise of BA or kulula – Comair no longer has its own branded flights.

The airlines have traditionally serviced what is described as the 'golden triangle' between Johannesburg, Cape Town and Durban – South Africa's three largest cities. According to OAG Airline intelligence, these locations alone account for around 80% of all South African departures.

While the public may perceive full aeroplanes as a sign of industry health, airlines can ill-afford to support 'soft' routes. The result is difficulties in obtaining seats at short notice because carriers are unwilling to expose themselves to over-capacity, thus frustrating passengers who are now having to book earlier.

With the demise of 1Time airlines in November 2012, filling the gaps has been a carefully measured exercise with Mango increasing its Port Elizabeth service using a leased Boeing 737-300 from Star Air Cargo. The airline has made the decision to acquire a further two 737-800s, the first one due to arrive in South Africa in late March. Mango is also planning to take over iTime's Zanzibar 'charter' route.

South African Airways' health continues to be a sensitive issue to its government owners. Government's continued social meddling in the airline has resulted in revolving door management – the latest switch taking place in

February with the suspension of CEO Vuyisile Kona.

Although Minister of Public Enterprise, Malusi Gigaba, has engaged the services of Mango CEO Nico Bezuidenhout to take over the reins as 'acting' CEO of SAA, the ANC Government has placed greater importance on applying transformation principles rather than airline management expertise into senior positions.

SAA has lost \$1.6 billion dollars over the past decade and is struggling to find acceptance for its 20-year 'return to profitability' plan that will enable it to make needed fleet changes. SAA is being seen as a bottomless pit for public money and there's little evidence that the airline has any long-term vision, other than as home for the ANC's cadre deployment strategies. One Department of Public Enterprises member, quoted in the national newspaper, said: "SAA lives from hand to mouth" and "SAA had given the department the impression that everything is 'fine'."

**Pitiful financial circumstances**

Despite its pitiful financial circumstances the state airline is, without doubt, the dominating influence among domestic operators. Comair is appalled at the continued reliance on taxpayer money to keep SAA afloat. It is at pains to remind the travelling public that this type of support enables the national carrier to compete unfairly with commercial operators and, as the airline takes delivery of brand new Boeing 737-800s, financed with private capital, the pressure to pay for them mounts. SAA lost \$142 million last year.

While Comair makes the most noise for operating outside of any government subsidy arrangement, it is not alone as an independent operator.

Airlink, operating under the South African Airways brand and enjoying the national carrier's code-sharing facilities, has become expert at operating low-volume high-yield routes – important in satisfying the government's need to link smaller communities like Nelspruit and Pietermaritzburg.

Airlink has sought growth from exploring regional cross-border destinations and now flies to a number of neighbouring countries. Its existence is intrinsically tied to SAA and, although the national carrier was a part owner of Airlink, the airline has been known to move over when SAA wants to muscle in on seemingly profitable routes.

SAA describes its Airlink partner as a franchise operation and Airlink continues this arrangement

to provide a feeder service for SAA. It is a privately-owned company with a mixed fleet of Jetstream J41, Embraer ERJ 135 and BAe146 aircraft, carrying more than 80,000 passengers a month. Although it shares passenger-handling facilities with SAA, its maintenance, staffing and ground-handling services are almost entirely separate. The airline remains well run and profitable.

While Airlink continually seeks new routes too soft to attract the interest of SAA and its own regional carrier division, SA Express, a small collection of commercial operators fill low-volume routes with much smaller aircraft.

Regional capital Ulundi, for instance, is served by a Kwa Zulu Natal Government-subsidised operation contracted to Johannesburg-based Federal Air. Often carrying less than four passengers per flight, the sector is flown between Pietermaritzburg, Durban and Ulundi using a single-engined Cessna Caravan operating five days per week.

More recently, start-up airline Blue-Crane has applied for a scheduled license to operate a six-passenger Cessna 414 between East London and Port Elizabeth in the Eastern Cape. These low-volume routes are often supported by a deteriorating road infrastructure, which means businessmen and government officials spending hours driving between appointments and requiring the hotel accommodation for trips that could otherwise be completed in a day by flying. Poor roads will almost certainly provide new opportunities for small and existing operators.

The fragile domestic market in South Africa, as in many other parts of the world, has left a littered trail of start-ups. These include Boeing 737 operator Velvet Sky and 1Time during 2012.

While 1Time was in business for seven years, Velvet Sky lasted three.

The industry has not been without its hopefuls either, with two airlines managing to complete an inaugural flight and then disappearing entirely.

In 2011, supported by the South African National (minibus) Taxi Council organisation with a star-studded opening attended by President Jacob Zuma, the airline completed only one public relations flight between Johannesburg's second airport, Lanseria and Bhisho in the Eastern Cape. In December, new-start FlyGoAir managed a single PR flight between Lanseria and Kruger Mpumalanga International Airport using a chartered Beech 1900D, and hasn't operated since.



# Right. Now.

## **Nothing works as well as an E-Jet today.**

Even in more prosperous times, E-Jets were a compelling choice — creating a whole new 70- to 120-seat category that spans all business models. Today, they're even more compelling, now that optimal fleet performance is so crucial to profitability. That's because E-Jets give you options that boost economy. Like filling schedule gaps without excess seat capacity. Or efficiently tackling long thin routes that require a mainline product standard. Or capturing new markets by going where other airlines can't. Think flexibility. Think E-Jets. Because now is the time to get things right.

*Discover the full range of E-Jet capabilities at [EmbraerCommercialAviation.com](http://EmbraerCommercialAviation.com)*

900+ DELIVERIES. 62 AIRLINES. 43 COUNTRIES.

LOVE WHAT YOU FLY



*Commercial Aviation*

*Les importantes restructurations du secteur aérien ont vu Air Mauritius renouer avec les bénéfices. La compagnie est maintenant à la recherche d'un partenaire stratégique de manière à s'assurer une croissance pérenne. Une enquête de Vincent Chappard.*

# Un partenariat pour soutenir la croissance

«Partnerships key to growth for Air Mauritius» – Page 24

Après avoir restructuré son réseau, Air Mauritius a renoué avec des bénéfices pour le second trimestre de l'année financière 2012-2013. Les indications disponibles au début de février 2013 laissent entrevoir une poursuite du redressement financier de la compagnie pendant le troisième trimestre (octobre-décembre 2012). Air Mauritius a offert 1 841 372 sièges sur l'ensemble de son réseau et a transporté 1 325 000 passagers au cours de l'année financière 2011-2012, soit 50% des passagers sur la destination Maurice.

«Ces résultats du deuxième trimestre de l'exercice 2012-2013 ne découlent pas seulement d'une rationalisation du réseau mais d'une série d'actions entreprises depuis le début de l'année 2012 dans le cadre de notre programme de transformation 7 Step Plan», a déclaré Foad Noorally, directeur juridique, de la Communication et Secrétaire Général d'Air Mauritius.

Le but de ce programme est de transformer le modèle économique de la compagnie pour en assurer l'efficacité, l'assise financière et la pérennité. Le 7 Step Plan concerne le réseau de dessertes, la flotte, la stratégie commerciale, l'optimisation des ressources, des actifs et des coûts, ainsi que la qualité du service.

La compagnie nationale est en effet un lien indispensable entre l'île Maurice et le reste du monde. Air Mauritius propose des vols directs vers Paris et Londres en Europe. Dans la région voisine de l'île Maurice et dans le périmètre de l'océan Indien, elle dessert bien évidemment l'île Rodrigues, l'île de La Réunion, Madagascar,



Décollage de l'aéroport international SSR d'un Airbus A330 d'Air Mauritius.

l'Afrique australe, l'Afrique de l'est, l'Inde et l'Australie. Son réseau s'étend aussi à la Malaisie, Singapour, Hong Kong et la Chine. Les dessertes touchent des hubs régionaux comme Johannesburg, Nairobi, New Delhi, Shanghai, Kuala Lumpur.

«Avec le réseau actuel d'Air Mauritius, le potentiel du trafic de transit entre le continent africain d'une part et les régions est et nord de l'océan Indien, est intéressant. Il n'est pas encore très important, mais le potentiel économique du continent africain peut changer cette donne» a déclaré Foad Noorally.

Le secteur aérien et le secteur du tourisme sont touchés, comme d'autres, par la crise économique. Ces secteurs doivent s'adapter à la crise et au changement économique mondial qui voit la montée en puissance de certains pays d'Asie et le potentiel de plus en plus affirmé de l'Afrique.

« Nos marchés européens arrivent à saturation, alors que s'ouvrent de nouveaux marchés, notamment l'Asie ainsi que possiblement la Russie à court et moyen termes et, à plus long terme, l'Afrique continentale, » a-t-il ajouté.

Air Mauritius a en effet du cessé certaines





**«Nos marchés européens arrivent à saturation, alors que s'ouvrent de nouveaux marchés, notamment l'Asie ainsi que possiblement la Russie à court et moyen terme et, à plus long terme, l'Afrique continentale.»**

**FOOAD NOORAULLY**

dessertes directes en Europe qui n'offraient pas les paramètres nécessaires au maintien de l'équilibre du réseau de dessertes de la compagnie. En même temps, elle propose à ses clients plus d'opportunités de connexion à travers son partenariat avec Air France sur le hub de Paris-Charles de Gaulle ainsi qu'avec la desserte sur le hub de Londres-Heathrow.

La compagnie ouvre ainsi de nouvelles destinations ou augmente ses fréquences vers l'Asie et l'Afrique de l'est pour capter de nouvelles opportunités de croissance. Selon Foad Nooraully, certaines de ces destinations ne sont pas immédiatement rentables car elles doivent atteindre leur rythme de croisière. Mais les études de marché témoignent de leur potentiel et Air Mauritius doit saisir ces opportunités. Le partage de code permet en effet à la compagnie de limiter les risques, au prorata des sièges affectés aux différentes compagnies partageant le vol.

#### **Un réseau renforcé**

En Afrique, Air Mauritius vole sur Johannesburg 10 fois par semaine et sur Nairobi 3 fois par semaine. Avec ces deux hubs d'Afrique australe et d'Afrique de l'est, les voyageurs bénéficient de nombreuses possibilités de connexion sur l'ensemble du continent africain mais aussi, dans le cas de Johannesburg, avec l'Amérique du Sud.

Au Moyen-Orient, Air Mauritius a un accord de « code sharing » avec Emirates. Depuis décembre 2012, Emirates a augmenté ses fréquences sur l'île, passant de 12 vols par semaine à

Continuer à  
la page 24

SUITE DE LA PAGE 23

deux vols quotidiens.

Pour le marché asiatique, Air Mauritius vole en direct sur Mumbai, New Delhi, Singapour, Kuala Lumpur et Shanghai. La compagnie possède des accords de code sharing et de connexion avec des transporteurs du sud-est asiatique comme Malaysian Airlines et Cathay Pacific. La desserte sur la Chine s'est enrichie depuis janvier 2013 avec deux vols hebdomadaires en direct sur Shanghai. Ils s'ajoutent aux vols déjà disponibles depuis plusieurs années avec escales.

Air Mauritius opère actuellement une flotte comprenant quatre A340-300, deux A340-300E, deux A330-200, deux A319 et deux ATR72-500. Dans le cadre d'une optimisation de son réseau et de ses coûts d'opération, elle souhaite renouveler sa flotte et même l'agrandir en fonction des besoins futurs. Cette éventuelle évolution de la flotte pourrait se faire avec la participation d'un partenaire stratégique.

#### Un partenariat stratégique

Selon nos informations, Air Mauritius souhaitait finaliser un partenariat stratégique avec une compagnie aérienne solide dans le courant de cette année.

Un partenariat a pourtant été évoqué entre François Hollande et le Premier ministre mauricien, Navin Ramgoolam, le 21 janvier dernier à l'Élysée.

Une délégation du groupe Air France/KLM avait fait le déplacement à Maurice en 2012. Les discussions entamées à cette époque pouvaient se concrétiser à la mi 2013 par un partenariat à la fois financier et stratégique.

Cette piste semble écartée à ce jour suite aux récentes déclarations de l'actuel président d'Air France, Alexandre de Juniac.

Il a en effet déclaré que la compagnie n'a pas les moyens pour contribuer davantage au capital d'Air Mauritius mais il existe d'autres voies pour intensifier cette coopération. Rappelons que le groupe Air France/KLM a enregistré une perte de 1,260 milliard d'euros pour le premier semestre 2012.

Air France et Air Mauritius sont déjà partenaires via des accords de partage de codes et de mise en commun de leurs programmes de fidélités Flying Blue et KestrelFlyer.

Air France peut aussi commercialiser les vols inter-îles dans l'océan Indien opérés par Air Mauritius. Les deux compagnies font partie des 14 compagnies ayant signé un accord pour une meilleure accessibilité des îles Vanille dans le sud-ouest de l'océan Indien.

Navin Ramgoolam s'est exprimé à la presse en marge d'un déplacement sur l'île en février dernier.

Le premier ministre mauricien aurait indiqué, selon l'agence Ecofin, qu'Air Mauritius est à la recherche d'un partenaire stratégique pour renforcer ses moyens financiers et poursuivre son développement, l'état mauricien étant l'actionnaire principal de la compagnie.

## SUMMARY

# Partnerships key to growth for Air Mauritius

*Air Mauritius is looking for a strategic partner so that it can go for growth. Vincent Chappard reports.*

**Air Mauritius has entered 2013 leaner and fitter thanks to a root and branch review of its entire organisation combined with a rationalisation of its network.**

The seven-step recovery programme was ordered at the start of 2012 against a backdrop of high fuel prices, an unfavourable Euro/US dollar exchange rate and the protracted global economic crisis, where airlines around the world remained challenged – particularly destination carriers that depended on long-haul operations.

The review looked at, among other things, the fleet; the business strategy; optimisation of resources, assets and costs; and quality of service.

Food Nooraully, the company's legal director, confirmed that, as a result of the programme, the carrier had returned to profit in the second quarter of 2012.

According to a company statement, bottom line performance for the second quarter improved by eight million euros to record a profit of €1.2 million. Early information also suggested a continuation of the financial turnaround in the third quarter (October-December 2012).

The national airline is viewed as an essential link between Mauritius and the rest of the world. In 2011/12 it carried 1.3 million passengers on its network – 50% of whom flew to or from Mauritius.

The carrier offers direct flights to Paris and London as well as destinations in the Indian Ocean, southern Africa, east Africa, India and Australia.

Its network extends to Malaysia, Singapore, Hong Kong and China and its routes affect regional hubs like Johannesburg, Nairobi, New Delhi, Shanghai and Kuala Lumpur.

As part of its review, the airline stopped some direct services to Europe but, at the same time, offered customers more opportunities to connect through partner hubs at Paris-Charles de Gaulle and London Heathrow.

"New markets including Asia, and possibly Russia, are opening up in the short and medium term," said Nooraully. "With the current network, the potential of transit traffic between Africa and the eastern and northern regions of the Indian Ocean is interesting."

The company has certainly recognised the economic potential of the African continent and is looking at possible new destinations and increased frequencies to both Asia and Africa.

According to Nooraully, some of these destinations may not be immediately profitable but market research demonstrated their potential.

The carrier currently flies to Johannesburg 10 times a week and Nairobi three, giving travellers many connection possibilities throughout Africa and, in the case of Johannesburg, to South America as well.

In the Middle East, Air Mauritius has a 'code sharing' agreement with Emirates. In December 2012, Emirates increased its frequencies to the island from 12 flights per week to twice daily.

For the Asian market, Air Mauritius flies direct to Mumbai, New Delhi, Singapore, Kuala Lumpur and Shanghai. The company has code sharing agreements and connections with carriers such as Southeast Asian, Malaysia Airlines and Cathay Pacific.

Services to China were also expanded in January with two flights weekly to Shanghai. These were in addition to flights that had been available for many years requiring a stop-over.

Air Mauritius currently operates a fleet of four A340-300s, two A340-300Es, two A330-200s, two A319s and two ATR72-500s. It now wants to renew and grow its fleet and is looking for a strategic partner to help it do so.

The natural partner would seem to be Air France – the airlines already have code sharing agreements and a pooled loyalty programme. Air France can also sell flights between islands in the Indian Ocean operated by Air Mauritius and both carriers are among 14 companies that have signed an agreement for better accessibility to the Vanilla Islands in the southwest Indian Ocean.

However, if Air Mauritius wants a quick deal, it is going to be out of luck. Although an Air France / KLM delegation visited Mauritius in 2012 to discuss possibilities, Air France president Alexandre de Juniac has poured cold water on the idea of a financial and strategic partnership any time soon.

Air France / KLM recorded a loss of €1.260 billion for the first half of 2012 and, while de Juniac said there were ways to strengthen cooperation, he added that his company did not have the means to contribute more.

Mauritian Prime Minister Navinchandra Ramgoolam summed up the situation in February when he confirmed to reporters that Air Mauritius was looking for a strategic partner to strengthen its financial resources and pursue its development (the state of Mauritius is the main shareholder of the company) and that the need to establish a capital alliance was urgent. "Air Mauritius needs capital and new aircraft but Air France has told us they can not give it to us for now, maybe later," he was reported as saying.



«New markets including Asia, and possibly Russia, are opening up in the short and medium term.»

FOOD NOORULLY

Le besoin de nouer une alliance capitalistique est urgent, Air Mauritius a besoin de fonds propres et de nouveaux avions, mais Air France nous a dit qu'ils ne peuvent pas nous les donner pour l'instant, peut-être plus tard.

«Air Mauritius est en effet engagée dans un processus de recherche de partenaire stratégique depuis plusieurs mois.

«Le partenariat peut prendre différentes formes. Le processus est toujours en cours et concerne de grandes compagnies aériennes européennes, asiatiques et du Moyen-Orient » a précisé Foad Nooraully.

Air Seychelles bénéficie d'un fort partenariat depuis janvier 2012 avec Etihad qui détient 40% de son capital. La compagnie seychelloise vient de recevoir un second Airbus A330 provenant de la flotte d'Etihad.

Cet avion a pris sa part du programme de l'hiver austral qui prévoit l'ouverture d'une ligne vers Hong-Kong et le renforcement des fréquences sur Abu Dhabi, Johannesburg et Maurice.

Air Mauritius doit encore franchir une étape importante dans la recherche d'un partenaire stratégique et pour le renouvellement de sa flotte d'avions afin de préserver son attractivité au sein du continent africain et de l'océan Indien.



Arrivée du premier vol direct d'Air Mauritius à Shanghai le 24 janvier 2013.



**Fly Aviation Services**  
Short notice is enough notice

**24/7 WORLDWIDE FLIGHT SUPPORT**  
PERMITS • HANDLING • FLIGHT PLANS • AIRCRAFT CHARTERS • FUEL

Tel +971 4299 1107 | Fax +971 4299 1133 | Mob +971 50 459 5980 | Email sales@flyaero.ae

# TOTAL PEACE OF MIND



[www.flyaero.ae](http://www.flyaero.ae)

**SHORT NOTICE ARRANGEMENTS**

Through our excellent relationships with CAA departments worldwide

**GLOBAL REACH**

No location is too remote, thanks to our expansive network of ground handling agents

**HASSLE FREE INVOICING**

Clear and straightforward post-flight paperwork

**OPERATIONAL EXPERTISE**

Multilingual, experienced licensed dispatchers on duty 24hrs / 7 days

**NO HIDDEN OR EXTRA CHARGES**

No fees for short notice, hotel arrangement, fuel arrangement, extra revisions



# GAMBIA'S DREAM TEAM

*Since launching regional and intercontinental services in October 2012, Gambia Bird, west Africa's newest flag-carrier, has encountered more than its fair share of obstacles. **Martin Rivers** reports on the company's continuing hopes of unifying west Africa's fragmented air infrastructure.*

**G**ambia Bird's inability to gain traffic rights to Lagos remains a major setback, forcing a rethink of early plans for a high-frequency service to the Nigerian metropolis.

The prospect, however remote, of Islamist rebellions spreading from Mali across the wider Sahel region is another cause for concern, rattling some European travellers.

But for Gambia Bird's management team – comprising chief executive officer Thomas Wazinski, chief commercial officer Karsten Balke, and chief administration officer Malleh Sallah – the dream of unifying and expanding west Africa's fragmented air infrastructure is inching ever closer to reality.

With a fleet of two new Airbus A319s and an EASA-certified line station manned by Germania Technik Brandenburg (GTB), they hope to transform this sliver-shaped country into a major player in west African aviation.

"In the short and medium-term our vision is to raise the aviation industry to a level that is A-class within the sub-region," explained Sallah. "Long-term, we want to turn Gambia into one of the major hubs in the sub-region; Banjul (Gambia's capital) has the opportunity based on its location to be an intercontinental hub."

The idea for Gambia Bird spawned from



Team work: From left, Mullen Sallah, Thomas Wazinski and Karsten Balke.

Wazinski's earlier, unsuccessful attempt to establish a new carrier in Ghana – a country that has since given rise to the likes of Starbow and Africa World Airlines.

After teaming up with Sallah and securing the political backing of Gambia's president, Yahya Jammeh, Wazinski oversaw a deal that granted Germania 90% ownership of the new airline venture. President Jammeh's willingness to hand over majority control of his flag-carrier to a foreign partner was a shrewd move, side-stepping many of the pitfalls faced by other African start-ups.

EASA certification lies at the core of Gambia Bird's proposition as a west African airline with European safety standards. "To set up a line station here, you have to fulfil certain requirements," explained Wazinski, who is also director of GTB. "The competent authority for the operator and the technical division is the German CAA. Gambia Bird has audits from the Gambian authorities too, but they don't audit GTB because it is EASA-approved."

Regulatory oversight by EASA gives the airline a free hand in selecting European destinations, though to date it serves just two routes outside Africa. London Gatwick Airport is operated twice weekly – including one flight that picks up passengers in Freetown, Sierra Leone – while, at

the time of writing, Barcelona was operated once weekly. Both routes have recorded load factors in excess of 65%, motivating the launch of a second Barcelona frequency in late March, plus consideration of a third or even fourth London flight at some point in the future.

"We had great success on our European routes," Balke said. "London Gatwick was picked up by the market quite easily and Barcelona was a good choice because Spanair left a big gap when it pulled out of the market." He acknowledged, however, that the forthcoming entry of Spanish low-cost carrier Vueling on the Barcelona-Banjul route presents competitive challenges.

#### Scandinavian destination

Beyond Spain and England, the airline has held talks with airports in Holland, Italy and countries "close to Germany and covering French catchment areas". But talks have advanced furthest with an unspecified Scandinavian destination, which is expected to become the airline's third European route in summer 2013.

Balke emphasised that Gambia Bird's intercontinental links fulfil a vital function for the flag-carrier, saying: "We can feel the pride of west Africans flying into London Gatwick, coming with an African airline, on-time, with a modern aircraft."

But closer to home, it is the carrier's regional footprint that will ultimately determine Banjul's potential as a hub for west Africa.

Though handicapped by delayed traffic rights to Lagos, the airline has deployed a combination of point-to-point and fifth freedom flights to serve many of the sub-region's key urban centres.

In March, it added Bamako in Mali, Ouagadougou in Burkina Faso, and Abidjan in the Ivory Coast to its network. These routes complemented pre-existing services to Conakry in Guinea, Monrovia in Liberia, Freetown in Sierra Leone, Accra in Ghana, and Dakar in Senegal.

Plans for a link to Douala in Cameroon are on hold until access to Lagos is secured, as the Nigerian city will be used as a fifth-freedom stopover on the route.

Commenting on the launch of Bamako flights, Balke downplayed the relevance of a possible guerrilla war between Islamist rebels and French forces north of the city. "We are not scared of the political situation in Mali," he said. "We have been there and felt how safe it is [in the capital]."

An onward connection to Barcelona may also be considered, he said, as Spanair had previously served that route with some success.

Other possible destinations of

Continued  
on Page 28

CONTINUED FROM PAGE 27

interest in the sub-region include Cotonou in Benin, Lomé in Togo, and Equatorial Guinea. But Balke said further expansion is not the top priority, insisting the airline must first “enter a process of consolidation, increase our seat load factors, and focus on marketing and distribution”.

As scheduled frequencies grow, the airline will gradually reduce its charter operations. “For now, if there are possibilities to have additional revenue of course we will take them,” he said. “But scheduled flying comes first.”

Significant expansion, either in the sub-region or in Europe, would also require a larger fleet. Though this is not on the cards at present, Wazinski noted that Germania is due to take delivery of two larger A321s in November 2013 and November 2014. Acknowledging that the economics of flying A319s from west Africa to Europe are not optimal, he said the parent company would carefully consider whether to relocate one A321 to Banjul.

Additional A319s are unlikely to be required until Gambia Bird gains access to Nigeria. “We

planned four frequencies a week to Lagos early on, and since then we are just waiting, waiting, waiting,” complained Balke. With bilateral traffic rights enshrined in the Banjul Accord – to which both countries are signatories – he said the matter is being pursued “government to government”. But he added his frustration that Nigeria’s Arik Air enjoys a monopoly on the Lagos-Banjul route. “They are flying here, but we cannot fly over there,” Balke noted. “This unfair competition will have a major impact.”

#### Seasonal withdrawals

For Gambia, having an autonomous flag-carrier, which maintains year-round links to its partners, is vital. This applies to European leisure traffic as much as to free trade in the sub-region. With tourism accounting for nearly 20% of the country’s GDP, Sallah said seasonal withdrawals by European airlines are damaging to the Gambian economy.

“For a long time we did not have a national airline operating out of Banjul International Airport,” he recalled. “Traditionally, during the

winter months we have been flooded with Thomas Cook, Monarch, Condor and all the European charter flights.

“But then in the summer we are stuck with nothing. Gambia Bird gives Gambia the opportunity to continue linking very important European destinations all year round.”

Balke agreed, saying that the government does not want to be “dependent” on foreign leisure carriers. Developing this point, he said a strong flag-carrier with a deep regional footprint and regular links to European centres of commerce would advance Banjul’s hub aspirations. This, in turn, stood to benefit neighbouring countries as much as Gambia.

The stopover in Freetown on Gambia Bird’s second London-bound service underscores the potential benefit that it can bring to regional partners.

“We have really given Freetownians the opportunity to go back home,” Sallah said. “I’m very proud, as a Gambian, to see the Gambian carrier facilitating not only travel for Gambians, but also for other people in the sub-region. This has been our vision from day one. We will not only

## SOMMAIRE

# Une équipe de rêve chez Gambia Bird

*Gambia Bird, nouvelle compagnie aérienne de l'ouest africain, a franchi beaucoup d'obstacles depuis le lancement de ses services en octobre 2012. Martin Rivers nous retrace son épopée et livre ses espoirs pour créer un véritable hub dans la région.*

Même si Gambia Bird n’a pas encore obtenu des droits de trafic pour Lagos, cette nouvelle compagnie a franchi beaucoup d’obstacles depuis son lancement en octobre 2012. Dotée de 2 Airbus A319 et d’une certification EASA via son partenariat avec Germania, la compagnie souhaite devenir un acteur majeur en Afrique de l’ouest.

Le rêve de l’équipe dirigeante de Gambia Bird d’unifier et de développer le trafic aérien dans cette région se réalise progressivement.

« Notre vision est de permettre à l’aviation de cette région d’atteindre un niveau d’excellence », a expliqué Malleh Sallah, directeur administratif de Gambia Bird.

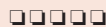
« Nous projetons à long terme de créer à Banjul (capitale de la Gambie), un véritable hub régional. »

Thomas Wazinski, directeur commercial de Gambia Bird, a trouvé un accord garantissant Germania d’être actionnaire à 90% de la compagnie. Même si Yahya Jammeh, Président de la Zambie, a soutenu le projet et a renoncé au contrôle de Gambia Bird, cela lui a permis d’éviter de nombreuses embûches rencontrées par les nouvelles compagnies aériennes africaines.

La certification AESA est au cœur de la stratégie de Gambia Bird qui lui donne ainsi les mains libres pour choisir et opérer ses destinations européennes. L’aéroport de Londres Gatwick est ainsi desservi deux fois par semaine (incluant une escale pour les

passagers de Freetown en Sierra Leone) et désormais un vol hebdomadaire à Barcelone. Les deux routes ont enregistré un taux de remplissage supérieur à 65%, ce qui a permis le lancement d’un deuxième vol à Barcelone fin mars ainsi qu’une étude de faisabilité pour un troisième voire un quatrième vol vers Londres.

« Notre route pour Londres Gatwick a été acceptée par le marché et la destination Barcelone est un bon choix grâce au retrait de la compagnie Spanair », a déclaré Karsten Balke, directeur commercial de Gambia Bird.



Il a toutefois reconnu que l’entrée prochaine en opération de la compagnie espagnole à bas coût Vueling sur cette route Barcelone-Banjul sera un véritable défi. Gambia Bird mène également des discussions avec des aéroports en Hollande, en Italie et des pays proches de l’Allemagne et de la France. Cependant, un aéroport scandinave pourrait être la troisième destination européenne de la compagnie en été 2013.

« Nous pouvons ressentir la fierté des Africains de l’ouest qui arrivent à Londres Gatwick, à l’heure, à bord d’un avion moderne d’une compagnie aérienne africaine », a ajouté Karsten Balke.

Gambia Bird a étoffé son réseau en intégrant Bamako au Mali, Ouagadougou au Burkina Faso et Abidjan en Côte d’Ivoire. Ces destinations complètent

les lignes existantes comme Conakry en Guinée, Monrovia au Libéria, Freetown en Sierra Leone, Accra au Ghana et Dakar au Sénégal. La mise en place d’une ligne vers Douala au Caméroun est en attente jusqu’à ce que l’accès à Lagos soit garanti. Karsten Balke a minimisé l’impact d’un éventuel affrontement entre les rebelles islamistes et les forces françaises sur le lancement des vols sur Bamako. Les perspectives d’ouvrir des routes dans la région du Sahel restent cependant lointaines.

Selon Karsten Balke, le développement du réseau de la compagnie comprenant par exemple Cotonou au Bénin, Lomé au Togo et en Guinée équatoriale n’est pas la priorité absolue. La compagnie doit d’abord entrer dans un processus de consolidation par le biais d’une politique de marketing et de distribution.

Cette expansion exigerait également une plus grande flotte d’avions. Germania doit prendre livraison de deux A321 d’ici fin 2014. Elle décidera de placer ou non un avion à Banjul. L’exploitation d’un A319 ne sera également pas nécessaire tant que Gambia Bird ne pourra accéder au Nigeria.

« Nous avons prévu quatre fréquences par semaine sur Lagos et nous sommes encore et toujours dans l’attente », a ajouté Karsten Balke.

Cette frustration s’explique par le fait que la compagnie Arik Air au Nigeria dispose d’un monopole sur la route Lagos-Banjul.

Bénéficier d’une compagnie autonome est

be the gateway to the Gambia. We will also be the gateway to west Africa.”

Cooperating with neighbouring countries – both to secure traffic rights and to explore potential partnerships – is therefore critical.

The airline is already in talks with one other west African carrier, Balke confirmed, adding: “We have to convince all the other states within the sub-region that we are actually helping them have permanent growth in the tourism market.”

Renewed airport investment is another prerequisite, and Sallah said the Gambian CAA has already drawn up plans to improve facilities.

However, Gambia Bird’s status as a flag-carrier and symbol for national pride necessitates divergence from the low-cost carrier (LCC) model being trialled elsewhere on the continent, notably by FastJet and its affiliate Fly540.

Balke voiced scepticism about the viability of

the LCC model in Africa where, he said, high airport taxes and challenging infrastructure curtail fare discounting.

In Sierra Leone, for example, authorities have proposed increasing the airport development fee from \$24 to \$69. “How can you be low-cost in that environment? “FastJet and Fly540 say they are low-cost carriers but when I look at the fares actually we are sometimes \$80 cheaper than them.”

Instead of minimising base fares and introducing ancillary charges, Gambia Bird aims to balance price with product. “Of course we try to cut down our costs but for some services we cannot,” Balke said. He singled out Gambia Bird’s complimentary in-flight meals, insisting: “There is a market for this and people pay for it.”

The airline is also reconfiguring its dual-cabin fleet when the aircraft undergo their first C-

checks in April. It will withdraw one row from each of the A319s, extending the seat pitch in economy to 31 inches.

Though that work will be completed in Berlin, most of the day-to-day MRO work is conducted by the two engineers that GTB has stationed in Banjul. It has a spare part pool agreement with AJ Walter Aviation, amassing components as diverse as hydraulic pumps, windscreens and weather radar transceivers.

The MRO firm also stores its own tools on-site. “Being so far away from the headquarters in Berlin, you have to be prepared,” Wazinski said. “This station has accumulated more equipment than any of our stations in Germany or Europe.”

From their office at Banjul International Airport, the on-site GTB staff use software including airline information management system (AIMS) for troubleshooting, and integrated maintenance management system (AMOS) for compiling technical reports. “We get everything online,” explained aircraft engineer Sven Lütkeholter. “Our technical manuals are directly linked to Airbus, so they are always up to date. But because they’re brand new aircraft, most of the time the only post-flight issues are things like software updates or wheel replacements. Nothing serious.”

**Middle Eastern carriers**

Despite being in its first year of operations, Gambia Bird is already looking at opportunities to develop overseas partnerships far beyond the sub-region. Alongside talks with one unspecified west African partner, it has held negotiations with two Middle Eastern carriers and four European airlines.

One of the European carriers is Germania, with whom Gambia Bird will begin codesharing out of London Gatwick this summer. But management were tight-lipped when asked about the other negotiations, stressing that numerous different models are being explored and talks remain in the nascent stages. Additional codeshares and interlines would be logical next steps, Balke admitted, though a broader pan-African alliance cannot be ruled out as a long-term aspiration.

One option not being considered, however, is relinquishing Gambia Bird’s European network in favour of solely operating feeder flights. “We want to be independent, and cooperation should not go that far,” Balke insisted. “We want to be free to decide when and how we fly to Europe.”

News that Niger’s government also plans to create a flag-carrier – purportedly in cooperation with Turkish Airlines, though Istanbul denies this – underscores the rapid pace of change in west African aviation.

Ethiopian Airlines-backed Asky is also fast extending its reach across the sub-region. But with operational expertise from Germania, technical expertise from GTB, and political backing from President Jammeh, Gambia Bird is among the front-runners in the race to develop west Africa’s fledgling connectivity.



Aircraft engineer Sven Lutkeholter. / Sven Lutkeholter, ingénieur aéronautique.

essentiel pour la Gambie. Cela facilite le libre échange et assure un trafic aérien vers l’Europe, ce qui est également bénéfique pour l’ensemble de cette région d’Afrique. Le tourisme représente près de 20% du PIB du pays et le retrait saisonnier des compagnies aériennes européennes est néfaste pour l’économie gambienne. Le gouvernement ne veut pas être dépendant des transporteurs étrangers dans le domaine du tourisme et des loisirs.



« Des opérateurs européens opèrent pendant les mois d’hiver, mais il n’y a plus rien en été. Gambia Bird donne la possibilité de relier l’Europe tout au long de l’année », tient à rappeler Karsten Blake.

Il est donc nécessaire de coopérer avec les pays voisins, protéger ses droits de trafic et explorer de nouveaux marchés.

Karsten Balke évoque son scepticisme concernant le développement et la viabilité des compagnies aériennes à bas coûts (LCC) sur le continent africain notamment avec FastJet et sa filiale Fly540. Cela représente un véritable défi car les autorités en Sierra Leone ont par exemple

proposé d’augmenter les taxes de 24 \$ à 69 \$. Il estime que Gambia Bird propose des tarifs pouvant aller jusqu’à 80\$ moins cher par rapport aux LCC.

Bien que les travaux de MRO soient réalisés à Berlin, la maintenance quotidienne est effectuée à Banjul. Un accord sur la distribution de pièces de rechange a été conclu avec AJ Walter Aviation. Gambia Bird utilise également les logiciels AIMS et AMOS pour ses rapports techniques.

Gambia Bird recherche des opportunités de développement à l’international et en Afrique. Elle mène des négociations en Afrique de l’ouest mais également avec des compagnies du Moyen-Orient et d’Europe. Germania et Gambia bird procéderont à des partages de codes au départ de Londres Gatwick cet été.

Le fait que le gouvernement du Niger envisage également de créer une compagnie nationale probablement en partenariat avec Turkish Airlines montre les changements rapides de l’aviation en Africaine de l’ouest. La compagnie ASKY connaît également une croissance rapide. Gambia Bird figure ainsi dans le peloton de tête pour assurer la connectivité dans la région grâce à l’expertise opérationnelle et technique de Germania et le soutien politique du Président Jammeh.

Sabre Airline Solutions and the Sabre Airline Solutions logo are trademarks and / or service marks of an affiliate of Sabre Holdings Corp. ©2013 Sabre Holdings Corp. A3-12-14-01

FREE  
DOM

# Freedom To Fly The Way You Want

With the industry's broadest portfolio of solutions, we give you the freedom to better market, sell, serve and operate the way you want. Our solutions and technology span your entire enterprise and can adapt as your business needs grow or change. Choose us as your partner and benefit from what you'll need to land your success.

## Set Your Business Free

[sabreairlinesolutions.com/AFA13](http://sabreairlinesolutions.com/AFA13)





# A revolution in crisis management

«Une révolution dans la gestion de crise » – Page 34

*What do you do when your airline's strategy is suddenly thrown off course by events over which you have no control? This was the problem EgyptAir faced just over two years ago when the Egyptian revolution began on January 25 2011.*

*Victoria Moores reports.*



Ehab Ghazy:  
“There was a  
feast of demand  
and then a huge  
drop after.”

**T**hat day in late January marked the start of an outbreak of demonstrations, riots and strikes that ultimately lasted months, even though the revolution officially lasted just two weeks and three days.

The government and Egyptian president Hosni Mubarak were overthrown, the armed forces assumed power, the constitution was suspended and the parliament and former ruling party were both dissolved.

Two years on, EgyptAir is still feeling the aftershocks of this political upheaval.

“The years 2008-10 were the best for EgyptAir, so the company was prepared for four more years of growth. The plan was to add a number of aircraft to our fleet, build our network and add more routes,” said EgyptAir deputy VP planning Ehab Ghazy, speaking at the Embraer Airline Business Seminar in Maputo, Mozambique.

“All that was put on hold but we know this crisis will end. The market is growing and we need to be ready for that.”

Paul Clark from consultancy firm Through the Looking Glass agrees it is essential to think of the future when a crisis throws you into a totally

unpredictable short-term situation. “I always say to airlines in times of crisis ‘don’t panic’. The key thing is you have to still think long term and not allow yourself to over-shape your fleet to the changed situation, because the market will come back. Just think of what happened with SARS. Fleet planning is a long-term issue and a crisis almost never affects the long-term situation. I think EgyptAir did a lot of things right.”

#### First challenge

EgyptAir’s first challenge was dealing with a mass exodus of people leaving the country, followed by a dramatic drop in traffic.

“There was a huge boom as foreigners went back to their own countries,” explained Ghazy. “We needed to add capacity to get everyone back home. But, after seven or eight days, we saw a drop in traffic and immediately cut our capacity. There was a feast of demand and then a huge drop after.”

The airline immediately mustered its crisis centre, which was active 24 hours a day, seven days a week, supporting operations. “Our decisions were taken by the hour, not by the day,” said Ghazy.

Sleep became a scarce commodity and Ghazy applauds the airline’s staff for doing a “very good job” of handling a “very hard situation” between January 25 and February 11, when Mubarak stepped down. Things then flipped again as Egyptians flocked home to celebrate what had happened.

However, in February 2011 most people avoided Egypt and traffic plummeted to 30% of pre-revolution levels. “There was an enormous drop in traffic immediately after the revolution. This caused us to take a huge number of aircraft out of service. We parked aircraft to keep capacity in balance. If you face this kind of situation, you have to be ready to park and lease out aircraft to mitigate sudden changes in demand.”

When a crisis hits, fleet and network flexibility are key, agreed Clark. “Airlines which have quite diverse networks and markets generally find it easier to redeploy and move around capacity. However, EgyptAir tends to be far more exposed to regional market volatility.”

Ghazy said the Umrah pilgrimage in March and April 2011 helped boost traffic to 70% of

Continued  
on Page 32

CONTINUED FROM PAGE 31

former levels. This again increased to 80% in June, when the schools broke up for the summer holidays. Likewise, in October and November the Hajj pilgrimage helped shore up passenger figures. "Those seasons supported EgyptAir in the year after the revolution, putting us in a better position than we expected," said Ghazy.

EgyptAir's traffic has now begun to return to pre-revolution levels and Ghazy hopes, once all the institutions are back in place, things will settle down and growth will return. A key element of this will be the country's parliamentary elections in April 2013.

"The other thing is fleet flexibility," explained Clark, returning to his second point. "In a crisis you want to try to get as much flexibility as you can. You need to renegotiate your order book, talk to lessors and make friends with your partner airlines as soon as possible."

Fortunately the revolution hit just as EgyptAir was coming to the end of its five-year fleet planning cycle, so it only needed to renegotiate the delivery of one Airbus A330-300 in 2011. A further 11 of the airline's 81 aircraft were due to be sold and replaced. These aircraft, comprising three A340-200s, four Boeing 777-200s, and five Boeing 737-500, were parked up.

#### Phase-outs

"We delayed some aircraft, pushed forward phase-outs and postponed our fleet expansion by two years. Now we are working on whether to extend this, or to begin a return to the original plan. We are in a review phase, which we expect to finish in spring 2013," said Ghazy.

Fleet structure, in terms of the 'lease or buy' decision, also plays a critical role. "The flexibility to offload capacity quickly [through leases rather

than ownership] may be more expensive, but in a volatile situation it can make a real difference," advised Clark.

Historically EgyptAir has primarily focused on owned aircraft, although it was beginning to shift its focus just as the revolution began. "We are a government-owned airline. The government always looks at the asset and wants to own the aircraft. For a while, our management team has been proposing that we should take aircraft on operating lease. Now the operating lease concept has been accepted and this should give us a more flexible fleet ownership strategy. EgyptAir is not government-run, it is government-owned, and they need to accept that we are changing the way we do things."

Clark fully supports Ghazy's theory that government owners tend to favour outright aircraft purchases over leasing arrangements, whereas airlines under private ownership are more likely to structure their fleet for optimum flexibility.

"I think he is spot on there; it is a very interesting point. Governments like to feel as if they control everything, that they own everything and it's theirs. It all stems from the old issues of sovereignty and national interest. However, today I think people have different point of view. I think the industry has grown up and people understand that fleet financing is something that has to be seen through a different lens.

"You can't just look at ownership, you've got to look at what's best in terms of getting the best possible deal to operate the aircraft. If you can see evolution [in the owned-leased balance] in environments such as Latin America and China, why wouldn't Africa take that on board?"

#### Extremely difficult

Every airline is different, so it is extremely difficult to give guidance on the correct proportions of owned to leased aircraft.

However Clark recommends roughly a third owned, a third on operating lease and a third on finance lease. "This is a good starting point, but there is no magic answer to that question," he cautioned.

The shift towards operating leases will be reflected in EgyptAir's new 10-year fleet plan, which will include both conservative and optimistic scenarios for the future. "We will use this as a way of expanding our fleet in the coming years, especially given the huge demands on manufacturers and the lack of slot availability," said Ghazy.

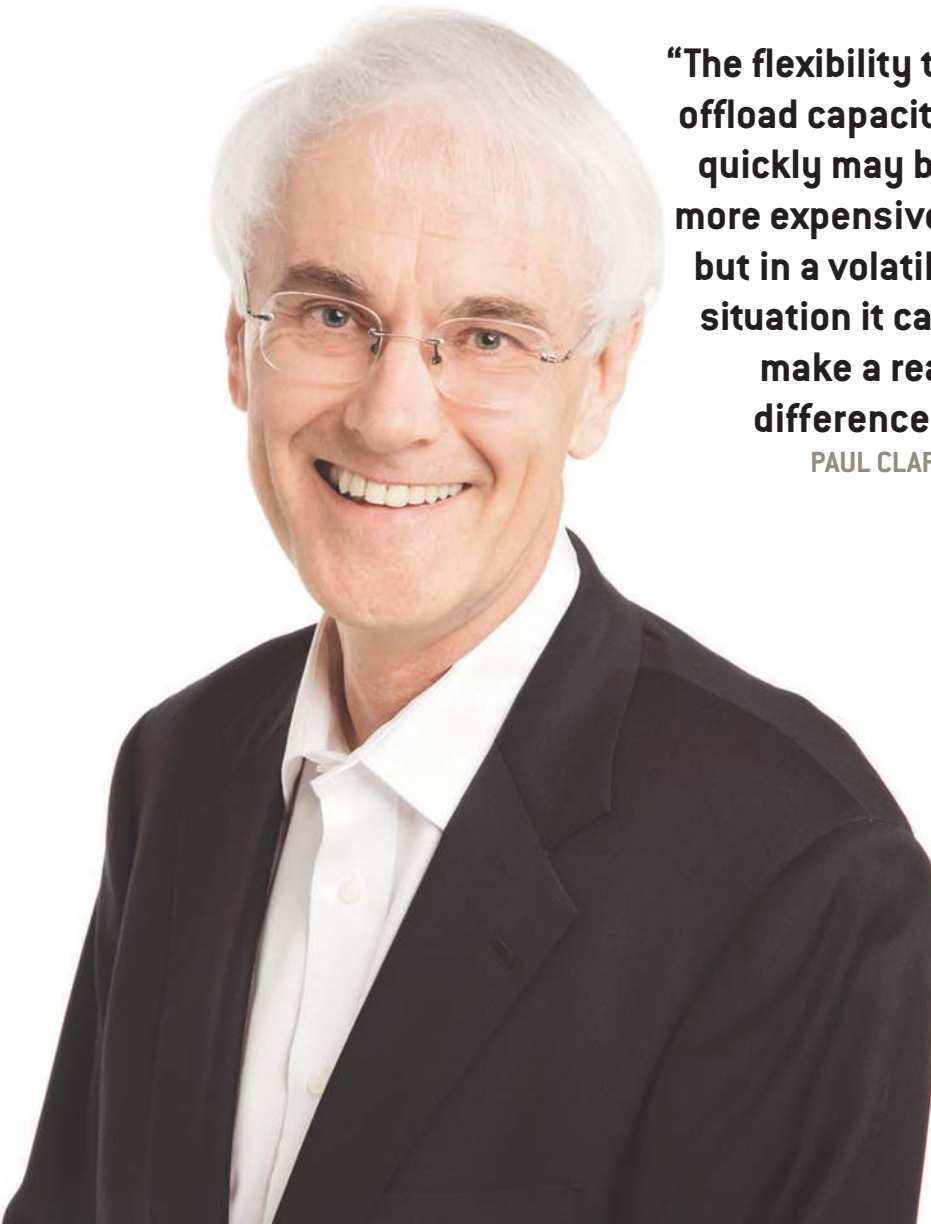
Laying the foundations for the long-term is already an obvious priority for EgyptAir, demonstrated by it doubling its fleet-planning horizon from five to 10 years. "EgyptAir does not have many aircraft on order, so they should push ahead with their fleet renewal plan," advised Clark. "They must not forget the long term, even though they are still finding a way of navigating choppy water at the moment."

Reflecting on the lessons EgyptAir learned from the revolution, Ghazy advises other

Continued  
on Page 34

**"The flexibility to offload capacity quickly may be more expensive, but in a volatile situation it can make a real difference."**

PAUL CLARK



# FLIGHT SAFETY

# Customer Care

## Quality Range Service Value

Our Customers are at the center of everything we do. We listen to their needs and respond in ways that not only meet, but exceed expectations. Over the years, that's led to a relationship that's, well, more like family.

### Take Advantage of Our New Customer Care Program

The new Customer Care program\* exemplifies our commitment to provide outstanding customer service. It includes ongoing access to FlightSafety's industry-leading Proficiency Protection program, designed to help our Customers maintain their skills even when they're between jobs.

Jet Professionals, the well-respected industry leader in staffing services, provides our Customers with preferred access to job placement support. They can also benefit from interactive online customer service and job interview skills training offered by ServiceElements. In addition, FlightSafety ProCard recipients receive a life insurance policy at no cost.

\*Conditions apply. Please see our website for details.

### Book Your Own Training With Online Convenience

FlightSafety is introducing a revolutionary new service this year that will enable our Customers to schedule their training online, confirm their simulator times, manage their training agreements, and enable most to get their training records immediately upon completion of training.

### Fly the Way You Train; Train the Way You Fly

Our new, innovative, highly customized Operational Day Flow training methodology transforms ground school training by presenting critical procedures and tasks according to phase of flight. Available for 19 aircraft programs and more to come in the future.

### Benefit From Our Investments in Your Training

Our ongoing investment gives our Customers the widest and most complete range of training services, equipment and locations available. We have, or soon will add, 28 new training programs that offer full flight simulators for current and next generation fixed-wing aircraft and helicopters at locations worldwide.



## NEW TRAINING PROGRAMS AND LOCATIONS - MORE COMING IN 2013 AND 2014

**AgustaWestland AW139**  
Lafayette, LA

**Bell 212**  
Dallas, TX

**Bell 412**  
Dallas, TX

**Bell 430**  
Dallas, TX

**Bombardier Challenger 605**  
Wilmington, DE

**Bombardier Global 5000/6000**  
Columbus, OH

**Cessna Citation M2**  
Wichita, KS

**Cessna New Citation X**  
Wichita, KS

**Dassault Falcon 7X**  
Dallas, TX; Paris, FR

**Dassault Falcon 900LX**  
Dallas, TX

**Embraer Legacy 500**  
St. Louis, MO

**Embraer Legacy 600**  
Houston, TX; St. Louis, MO; Paris, FR

**Embraer Legacy 650**  
St. Louis, MO

**Embraer Lineage 1000**  
St. Louis, MO; Paris, FR

**Eurocopter EC135**  
Dallas, TX

**Gulfstream G280**  
Dallas, TX

**Gulfstream G450/G550**  
Dallas, TX; Hong Kong

**Gulfstream G650**  
Savannah, GA

**Gulfstream G650**  
Long Beach, CA

**HondaJet**  
Greensboro, NC

**Pilatus PC-12 NG**  
Dallas, TX

**Pilatus PC-12/47**  
Dallas, TX

**Sikorsky S-76D**  
West Palm Beach, FL

**Sikorsky S-92**  
Lafayette, LA; Stavanger, Norway

For information, contact Scott Fera, Senior Vice President, Marketing • 718.565.4774  
sales@flightsafety.com • flightsafety.com • A Berkshire Hathaway company

**FlightSafety**  
international

CONTINUED FROM PAGE 32

airlines that they need to be prepared for the worst and, most importantly, be prepared to act immediately. "You need to have Plan B on the shelf and ask yourself 'what are we going to do if we are faced with any crisis?'"

"If you don't have this, you will have to sit down and think. Taking this time could be very costly. You need to respond quickly and you need to have strong relations with your suppliers because you will rely on them if you hit problems. Finally, you need to have a very good team running the show. If you don't manage the situation effectively, your company could go bankrupt."

Effective crisis management involves running through possible scenarios and preparing for the various outcomes. "For fleet planning, this depends on two things: when you expect things to settle down and making sure you are ready for growth after that happens," he said.

Ghazy also stressed the importance of strong capacity management to ensure yields do not drop, causing huge losses.

#### Respond quickly

Having a crisis team ready and poised for action was also a huge advantage for EgyptAir, although Ghazy confesses that revolution is not something the team would normally expect to handle. However with 20:20 hindsight, he believes the team did a good job of managing the crisis.

Asked what he would have done differently, he replied: "Nobody expected the transition to take so long."

"If we had known that, some of the decisions we took on a short-term basis would have been changed to long-term decisions, such as switching aircraft which were put out into the market on short-term ACMI leases to one- or two-year dry leases."

In closing, Ghazy again stressed the importance of relations with the aircraft manufacturers. "Whenever there is a crisis, you need to sit down with the manufacturers and operating lessors to explain the situation. They will be ready to support you. They don't just sell you the aircraft and then go away. We have seen from Airbus, Boeing and Embraer that they are all ready to support us."

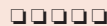
## SOMMAIRE

# Une révolution dans la gestion de crise

**Que fait une compagnie aérienne lorsque sa stratégie est soudainement mise à mal par des événements sur lesquels elle n'a aucun contrôle? Tel a été le cas d'EgyptAir il y a un peu plus de deux ans, lorsque la révolution égyptienne a éclaté.**

**Le 25 janvier 2011 a marqué le début d'une série de manifestations, d'émeutes et de grèves, en Egypte. Ces événements ont duré des mois. Deux ans plus tard, EgyptAir ressent encore les effets de ce bouleversement politique.**

**« EgyptAir a connu ses meilleures années entre 2008 et 2010 et s'était préparée à quatre années de croissance. Nous avons prévu d'ajouter des avions à notre flotte, de consolider notre réseau et d'ajouter de nouvelles routes », a déclaré Ehab Ghazy, directeur adjoint de la planification d'EgyptAir. « Tout a été mis en attente et nous nous sommes préparés à la reprise du marché. »**



**Paul Clark, consultant aéronautique, estime également qu'il est essentiel, en cas de crise, de penser à l'avenir face à un environnement totalement imprévisible.**

**« Ne jamais céder à la panique, l'essentiel est de penser à long terme et d'adapter votre flotte et votre réseau à la situation parce que le marché va reprendre. Une crise n'affecte presque jamais une planification à long terme », a souligné Paul Clark.**

**« EgyptAir a augmenté ses capacités face à un exode d'étrangers quittant le pays puis cloué au sol beaucoup de ses avions face à une baisse considérable du trafic », a expliqué Ehab Ghazy. « Vous devez par conséquent être prêts à adapter vos opérations. »**

**Ehab Ghazy tient également à saluer l'excellent travail de l'ensemble du personnel de la compagnie. Le centre de crise de la compagnie a été actif sans interruption et les décisions ont été prises rapidement. « La flexibilité de la flotte d'avions et du réseau sont**

*Que faites-vous lorsque la stratégie de votre compagnie aérienne est soudainement jeté hors cours par des événements sur lesquels vous n'avez aucun contrôle?*

Par **Victoria Moores.**

**des éléments clés lors d'une crise », a précisé Paul Clark. « Avec un marché diversifié, les compagnies aériennes redéployent plus facilement leurs capacités. EgyptAir est cependant plus exposée à la volatilité des marchés régionaux. »**

**Les pèlerinages d'Omra et de La Mecque ont toutefois permis de stimuler le trafic d'EgyptAir tout comme les vacances d'été. Selon Ehab Ghazy, la croissance sera de retour une fois les institutions en place et la tension retombée. Les**

**élections parlementaires en avril 2013 seront importantes. La compagnie a pu également reporter son plan d'expansion de 2 ans et prévoit de le lancer au printemps 2013. Onze de ses 81 avions devaient être vendus ou remplacés. EgyptAir, compagnie d'Etat, a toujours préféré posséder ses propres avions. Le fait de recourir à la location d'avions a été accepté, ce qui devrait apporter une flexibilité optimale. C'est également un moyen d'accroître la flotte de la compagnie, compte tenu de la charge de travail et des créneaux de disponibilité des aviateurs.**

**Paul Clark soutient cette initiative car les Etats ont tendance à favoriser l'achat à la location. Il recommande d'avoir une flotte d'avions composée d'un tiers en propriété, d'un tiers en location et d'un tiers en location-vente via un financement.**

**Ehab Ghazy nous indique que gérer une crise face à une révolution n'est pas quelque chose auquel l'on s'attend.**

**« Si vous n'avez pas cette capacité d'agir vite, vous aurez à vous asseoir et réfléchir. Prendre ce temps pourrait être très coûteux. Vous devez avoir de solides relations avec vos fournisseurs et une très bonne équipe dirigeante car si vous ne gérez pas la situation de manière efficace, votre entreprise pourra être rapidement en faillite. »**

**Ehab Ghazy a enfin souligné l'importance des relations avec les aviateurs. Il faut prendre le temps de discuter avec les partenaires pour expliquer la situation. EgyptAir a constaté qu'Airbus, Boeing ou Embraer étaient tous prêts à la soutenir.**



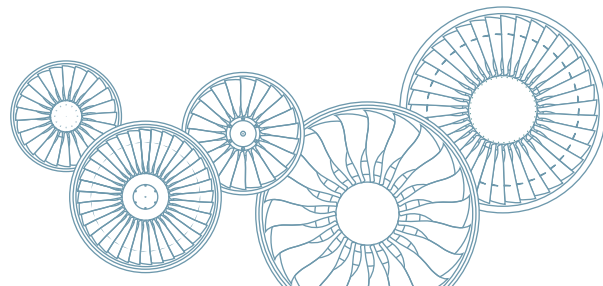


Full repair  
capability for  
the GE90 Growth

# 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](http://www.mtu.de)





# Ethiopian faces up to

*The worldwide grounding of Boeing's 787 following two fires involving lithium-ion batteries is giving carriers such as Ethiopian Airlines a major headache.*

*As the aircraft awaits its imminent return to service, Alan Dron reviews the situation.*

«Une série de problèmes pour Ethiopian Airlines » – Page 38

**W**hen the first of Ethiopian Airlines' Boeing 787-8s landed at Addis Ababa on August 17 2012, the carrier was understandably proud. It was the first African carrier – and only the third in the world, after All Nippon Airways (ANA) and Japan Air Lines (JAL) – to take delivery of the highly advanced Dreamliner.

Today, the four 787s that have so far been delivered to Ethiopian from an order for 10, stand disconsolately on the apron, grounded by the FAA decision to order a safety review of the type following two incidents involving its lithium-ion battery packs.

Until then, the aircraft had operated reliably for



# a battery of problems

the African flag-carrier. It had racked up 5,660 hours of flight time and recorded the industry's highest average daily utilisation of the type – around 14 hours.

Ethiopian deployed the Dreamliners on both long-haul services (Washington DC, Toronto, Frankfurt and Beijing, as well as African services to Johannesburg, Lusaka and Harare, alternating with its B-777-200LR.

In fact, Ethiopian noted that it was the only carrier to have maximised the design range capabilities of the Dreamliners by flying them from Washington DC to Addis Ababa, a sector of 6,200nm (11,500km).

"We are pleased with the performance of our



**Tewolde Gebremariam:** "The feedback from our passengers has been overwhelmingly positive."

Dreamliners," commented CEO Tewolde Gebremariam before the grounding.

"The feedback from our passengers has been overwhelmingly positive and in some instances contributed to higher than expected passenger load factors on routes on which it has been deployed."

Like any new aircraft – especially a high-technology one such as the 787 – Ethiopian had experienced some teething problems and delays, said Gebremariam.

It had not faced the battery overheating problems experienced by ANA and JAL. However, with safety being the airline's prime consideration, it

Continued  
on Page 38

CONTINUED FROM PAGE 37

pulled the aircraft from service within 24 hours of the FAA directive to conduct the special inspections demanded by the US airworthiness authority and to await an approved solution to the overheating problem.

At the time of writing, Ethiopian had announced that the aircraft would not be returning to service until the end of April at the earliest.

Like other airlines suffering from the grounding, Ethiopian has had to reschedule older types on to routes that should be flown by the 787, causing additional costs. It had been due to receive its fifth Dreamliner in March, with the remaining five from its order scheduled to be phased in through 2014.

Ethiopian did not respond to repeated attempts by *African Aerospace* to discover whether it is leasing additional aircraft to make up for the grounding of its 787s, or give further details of problems the grounding has caused.

The FAA's decision to ground the Dreamliner came as a bitter blow to those airlines such as Ethiopian that had waited so long for the heavily-delayed 787, which entered airline service more than three years late after a long and painful gestation period.

When the first 787-8 was delivered to ANA on September 27 2011, the US airframer must finally have felt that its long nightmare with the revolutionary airliner – plagued by supply chain problems that required extensive reworking – was finally over. At last, the type could start earning money for its purchasers and publicity for Boeing that would focus on the aircraft's virtues, not its difficulties.

#### Auxiliary power

On January 7 2013, however, a JAL Boeing 787 experienced a fire in its auxiliary power unit while on the stand at Boston's Logan International Airport, some 30 minutes after arriving from Tokyo. And nine days later an ANA 787 on a domestic flight from Yamaguchi Ube to Tokyo Haneda Airport made an emergency landing at Takematsu after the crew reported a battery malfunction. According to a Reuters report, smoke appeared in the cockpit.

Across the globe, 50 brand-new Boeing 787s are now parked on airport aprons or inside hangars, going nowhere.

Instead of earning valuable revenue for their owners they are giving those owners major

headaches as they try to fill gaps in schedules that they had assumed would now be being flown by the twin-engined jet.

The 787 has two primary rechargeable batteries: the main and auxiliary power unit (APU).

The main battery powers up aircraft systems, bringing the aircraft to life before the engines have been started. Once the engines are started, the electrical energy to run the systems comes from generators. The main battery is also used to support ground operations, such as refuelling and powering the braking system when the aircraft is towed. Additionally, it provides back-up power for critical systems during flight in the event of a power failure. It is located in the forward electronics equipment (EE) bay, under the main cabin floor at the front of the aircraft.

The APU battery supplies power to start the APU, which in turn can start the aircraft's engines. The APU, and its battery, also serves as part of the multiple layers of redundancy that would ensure power in the rare event of a loss of primary power.

After extensive testing during the 787's development programme, Boeing selected a

## SOMMAIRE

# Une série de problèmes pour Ethiopian Airlines

L'immobilisation de l'ensemble des Boeing 787 (B787) suite à deux incendies impliquant leurs batteries en lithium-ion, provoque un véritable casse-tête pour les compagnies aériennes.

Ethiopian Airlines était très fière le 17 Août 2012, lorsque son premier B787 a atterri à Addis-Abeba. Quatre B787 restent aujourd'hui cloués au sol suite à la décision de la FAA ordonnant un examen de sécurité des batteries. Ces B787 avaient pourtant prouvé leur fiabilité avec 5660 heures de vol.

« Nous sommes satisfaits de la performance de nos B787 », avait déclaré Tewolde Gebremariam, directeur général d'Ethiopian Airlines avant l'immobilisation de ses avions.

Le B787 a connu quelques problèmes de jeunesse et des retards mais Ethiopian Airlines n'avait pourtant pas été confrontée à ce type de problème. Elle a toutefois décidé de retirer ses avions du service dans les 24 heures qui ont suivi la décision de la FAA. Ethiopian Airlines a dû réorganiser son réseau ce qui a engendré des coûts supplémentaires. Elle n'a pas souhaité répondre à nos questions sur les solutions mises en œuvre.

La décision de la FAA est un véritable coup de massue pour les compagnies aériennes qui avaient attendu si longtemps le B787. Sa mise en service a accusé un retard de 3 ans. Boeing pensait être sorti d'affaires suite à des problèmes concernant sa chaîne d'approvisionnement une fois le premier B787 livré en 2011. 50 B787 sont maintenant à l'arrêt, ce qui prive les compagnies aériennes de revenus précieux.

Le B787 a connu un premier incident le 7 janvier dernier avec un incendie de son groupe auxiliaire de

puissance (APU). Un second incident est intervenu 9 jours plus tard avec un atterrissage d'urgence à Tokyo.

Le B787 dispose de deux systèmes d'alimentation : la batterie principale d'alimentation et l'APU. La batterie principale alimente les systèmes de l'avion jusqu'à ce que les moteurs prennent le relais. Elle est également utilisée pour assurer les opérations au sol et en cas de panne. L'APU assure quant à lui le démarrage des moteurs de l'avion.

□□□□□

Boeing a choisi les batteries lithium-ion après de nombreux essais. Elles fournissent une grande quantité d'énergie dans un court laps de temps ainsi qu'une recharge rapide. Cette technologie était suffisamment mature pour pouvoir répondre aux exigences d'un avion moderne. Les précédentes versions d'avions utilisaient des batteries au nickel-cadmium. Moins puissantes, elles sont environ 30% plus lourde et plus grande.

Les batteries lithium-ion présentent cependant des risques de surchauffe et des phénomènes d'« emballement thermique » dans certaines circonstances. Cela peut causer un court-circuit et un incendie.

Boeing était conscient de ces inconvénients lors du développement du B787. Les batteries lithium-ion

avaient cumulé plus de 2,2 millions d'heures d'essais au sol et 50 000 heures en vol depuis l'entrée en service de l'avion. Il n'y a eu aucun incident avant janvier 2013. Cette technologie a d'ailleurs été utilisée en toute sécurité depuis des décennies pour d'autres applications : satellites ou autres produits ménagers et électroniques.

Le B787 est aussi un avion « plus électrique » qui utilise davantage d'énergie pour alimenter le système hydraulique ou encore le dégivrage des ailes.

Boeing a présenté une solution fin février. Michael Huerta, administrateur de la FAA, a déclaré devant le congrès américain que cette nouvelle configuration évitera la surchauffe des batteries via un meilleur système de protection et d'isolation. Cette proposition de Boeing va être maintenant soigneusement analysée.

Beaucoup pense que cette solution ne fait qu'éviter le problème au lieu de s'attaquer à sa véritable cause. Airbus a annoncé son choix de revenir à des batteries nickel-cadmium pour son A350 XWB, tant l'incertitude est grande.

Plusieurs compagnies aériennes ont déjà indiqué que leurs B787 ne seront pas en service avant le début de l'été. Elles formuleront certainement des demandes d'indemnisation à l'avionneur en plus des pénalités financières pour la livraison tardive de leurs avions. Pour Boeing et le B787, le cauchemar continue.

50  
B787 sont  
maintenant à l'arrêt,  
ce qui prive les  
compagnies aériennes  
de revenus  
précieux.



lithium-ion type battery because it had the right functionality and chemistry to deliver a large amount of power in a short period of time to undertake a high-energy task like starting a jet engine.

It then had the ability to recharge in a relatively short period of time so that it was available for its critical back-up role in flight. Batteries, like other technologies, have advanced significantly over the years, and lithium-ion types matched up with the unique requirements of advanced aircraft, said Boeing.

Earlier airliners, such as the 777, 747 and MD-11, used nickel cadmium (NiCad) batteries, which are around 30% heavier, larger and less powerful. Lithium-ion batteries have a much higher energy density than other types – around six times as much power as a conventional lead-acid battery used in a car, for example.

They also have no ‘memory effect’ – the phenomenon where conventional batteries accept less and less charge each time they are recharged – and hold that charge for longer.

However, they have some disadvantages – notably the ‘thermal runaway’, or overheating, phenomenon.

This can occur in several circumstances, including the presence of moisture or other contaminants entering a battery during manufacture. This can cause a short-circuit and fire. Similarly, overheating can occur if the batteries are drained of too much power, over-charged or physically damaged.

Boeing was well aware of these potential

problems and designed in multiple layers of protection to the battery systems and their containers when developing the aircraft.

According to the company, since entering service, Boeing 787 lithium-ion batteries, each with eight cells, had logged more than 2.2 million cell-hours on the ground and in the air during more than 50,000 flight-hours. One factor that has puzzled investigators is that no battery-related incidents had occurred before January 2013, despite extensive testing and operational service.

The US airframer adds that it has used lithium batteries safely and successfully for decades in other aerospace applications, such as the satellite industry.

#### Consumer electronics

Closer to home, lithium batteries are used to power a range of consumer electronics and household power tools.

Among the qualities that give lithium-ion batteries other key advantages to make them suitable for modern jets are high current production and compactness – roughly the size of an average car battery.

High current production is important as the 787 is a ‘more electric’ aircraft – systems that on previous models used pneumatics that bled air off the engines to power other systems, such as hydraulics and wing de-icing – are driven by electricity. Bleeding air from the engines causes a small but inevitable loss of power.

In mid March, Boeing announced that a

comprehensive set of improvements that will add several layers of additional safety features to the lithium-ion batteries on 787 commercial jetliners are in production and could be ready for initial installation by the start of April.

New enclosures for 787 batteries also are being built and will be installed in airplanes in the weeks ahead.

These improvements, which continue to undergo extensive certification testing, will allow operators to resume commercial flights with their 787s as soon as testing is complete and the FAA and other international regulators grant their final approval.

The improvements include enhanced production and operating processes, improved battery design features and a new battery enclosure.

Some commentators have, however, voiced concerns that the proposed solution was aimed at containing problems, rather than eliminating their root cause.

Significantly, February also saw Airbus announcing that it had decided to return to nickel-cadmium batteries for its forthcoming A350 XWB airliner while uncertainty remained over the 787 situation.

The requirement for regulatory approvals and the time to fit the new “fix” will, almost certainly lead to more demands for compensation from airlines already seeking financial remedies from Boeing for the late delivery of their aircraft.

For Boeing, the Dreamliner continues to generate nightmares.



An Ethiopian Dreamliner - soon to be back in service?

*Despite launching operations on time and with load factors approaching 80%, African low-cost start-up FastJet has flown into a myriad of legal difficulties since taking to the skies in November 2012. **Martin Rivers** reports.*

# FAST AND FURIOUS

**F**astJet, the Stelios Haji-Ioannou-backed carrier, not only disputes bills from one of its leasing companies and the Tanzanian government, but it is now embroiled in a complex ownership and branding battle with Five Forty Aviation, the parent company of its Fly540 affiliate.

The strength of the respective legal arguments by FastJet and Five Forty Aviation will be determined in court, but it is clear that the dispute stems from the founding contract signed between the two parties last year.

Both sides effectively claim ownership of the Fly540 brand, while rejecting liability for Fly540's historic debts.

The merit of these claims is obfuscated by the complexity of FastJet's corporate structure.

## Reverse takeover

In June 2012, it launched a reverse takeover of Lonrho Aviation, which is the parent company of Five Forty Aviation. Under the terms of a reverse takeover, the acquired party (Lonrho Aviation) becomes a majority stakeholder in the acquiring party (FastJet, then known as Rubicon).

The nature of this ownership structure – both in terms of what rights it affords each party, and whether it was fully consummated – is being challenged by Five Forty Aviation.

But the ownership dispute is only part of the story. Licensing agreements between the two companies are also being contested.

Five Forty Aviation is the parent company of four Fly540 operations in Tanzania, Kenya, Ghana and Angola, each of which holds its own air operator's certificate (AOC). FastJet claims that it has "sole and exclusive rights" to these Fly540 brands because of its reverse takeover of



Lonrho Aviation. Five Forty Aviation says that FastJet failed to meet the conditions of the acquisition, and it therefore merely held temporary licenses, which have since been revoked.

To say that the situation is convoluted would be a gross understatement. The merits of the two opposing arguments cannot be second-guessed until court proceedings have progressed, but already questions are being asked about the robustness of due diligence by FastJet during the acquisition.

## Losses deepened

Fly540's losses deepened between 2009 and 2011. Mindful of the subsidiary's weak performance, Lonrho Aviation had intended to wind down the Fly540 brand, retire its turboprops, and keep the AOCs for the newly introduced FastJet brand.

Fly540's dissolution would run parallel to the scaling up of FastJet's fleet, which currently stands at three Airbus A319s but had been forecast to reach up to 12 by the end of 2013.

Operations director Rob Bishton insisted in

January that those plans are not set in stone, saying: "The fleet plan is driven by us being cash generative this financial year. That's one of the fundamental golden rules by which we're managing the expansion."

With FastJet's expansion trajectory still under review, Fly540's aircraft in Ghana and Angola are unlikely to stop flying any time soon. Fly540 Kenya is also expected to continue operations, although Fly540 chief executive Don Smith has yet to relinquish control of that unit.

While FastJet seeks a declaration from Britain's High Court compelling him to do so, it has, instead, signed an MOU with defunct Kenyan operator Jetlink Express in January.

Fly540 Tanzania ceased operations two weeks before the launch of FastJet.

As the three remaining Fly540 units continue flying amid uncertainty over their ownership structure, FastJet and Five Forty Aviation are duking it out over liability for the subsidiary's historic losses.

The original complaint by Five Forty Aviation in January alleged that FastJet still had to repay \$6.78 million to third parties, with Smith saying:



**FastJet and Five Forty Aviation: Both sides effectively claim ownership of the Fly540 brand, while rejecting liability for Fly540's historic debts.**



“Under the acquisition agreement, Lonrho Aviation – now FastJet – agreed to pay off this bank debt. To date, they have not done so.”

FastJet rejected that claim out of hand, saying the acquisition had been “fully consummated” and adding: “Mr Smith certified in a document signed by him on 24 July 2012 that – other than specified liabilities as set out in the document – there is no other liability or indebtedness due to him or any entity controlled by him.”

#### **Escalated the dispute**

But Five Forty Aviation escalated the dispute further in February, alleging that FastJet was responsible for another \$7.7 million in debt. Perplexingly, even as Five Forty Aviation demanded that FastJet pay these legacy debts, it revoked the licensing agreements and ordered that the three Angolan and two Ghanaian aircraft be repainted. Smith in effect seemed to be saying that FastJet could keep the two subsidiaries' debts and fleets, but that it must otherwise have no involvement in the business. FastJet's response was predictable: “Statements made by Don Smith ... suggesting he has the right to withdraw the

**«The question now is whether FastJet will be stalled, or will continue to move forward.»**

**ERNEST ARVAI**

brand are absolutely wrong and without foundation.”

The most disturbing allegation made by Five Forty Aviation is that FastJet failed to submit adequate safety reports. “We have no way of assuring that the planes are safe to fly,” Smith said in February, pointing to a flight on December 14 which, he alleged, “flew with defects”. FastJet said the service in question was a “maintenance, non-public transport flight”, for which all necessary permits had been obtained.

#### **Fending off demands**

Alongside the Fly540 dispute, FastJet is also fending off demands for \$2.2 million in tax from the Tanzanian government and \$2 million from Avmax Aircraft Leasing. Both claims are historic debts arising from Fly540's operations.

“FastJet is attempting to create the first pan-African low-cost carrier and the concept makes good sense,” concluded Ernest Arvai, co-founder of aviation consultancy Air Insight. “The execution, however, could be delayed by disputes such as this. The question now is whether FastJet will be stalled, or will continue to move forward.”



**Suda Said Rajab:**  
first female airline  
CEO in Tanzania.

# Rajab points the way ahead for Precision Air

**S**uda Said Rajab broke new ground in Tanzania's aviation history when she became the first female airline CEO in the country.

She took over the lead role at Precision Air on March 1.

But Rajab is no stranger to the challenges of the East Africa aviation industry as she joined Precision from Kenya Airways, where she has served in different capacities for the last 23 years – the most recent being as general manager of the airline's cargo operations.

The 49-year-old succeeded Alphonse Kioko, who took

voluntary retirement after steering Precision on a fast growth track for the 10 years of his reign at the top of the Dar airline,

When he joined in 2003, the fleet consisted of two old ATR 42s and a few smaller aircraft. Now the airline has eight new ATR aircraft and two Boeing 737-300 types. Passenger numbers grew from 200,000 to about million expected this year through a double-digit annual percentage growth.

Precision is bringing in some impressive figures too. Every single year of Kioko's stewardship, the airline made profits. It became publicly owned in 2011 and revenues have grown from around \$12 million in 2004 to about \$100 million in 2011/2.

The airline is now 60% owned by Tanzanians and 40% by Kenya Airways.

Kioko said: "My stay in Tanzania has been the most exciting time of my life – professionally and personally. I have enjoyed every bit of my life here in this beautiful county, not forgetting the warmth of the people here."

Speaking as his retirement was announced, Kioko said: "The success story of Precision as the leading Tanzania airline is attributed to the goodwill and patronage from our customers and commitment of our staff. I will forever be part of Precision and I know I leave you all in good hands."

Rajab said she is excited to be joining a successful home-grown airline and is ready to steer forward the legacy that her predecessors have laid for her. "I am excited for this opportunity; I look forward to good times in this airline," she said.

Rajab joined Kenya Airways in 1989 as a management trainee. After her training she was posted to the reservation department, where she rose through the ranks in various roles including country manager – Uganda, Rwanda and Burundi; general manager Kenya; area manager East Africa; regional general manager Europe, Americas and Asia. She was also the airline's general manager cargo operations.

She is a graduate of the University of Nairobi and is currently pursuing an MBA at the Strathmore University.

## SOMMAIRE

### Rajab : fer de lance de Precision Air

Suda Said Rajab vient de marquer l'histoire de l'aviation de la Tanzanie. Elle est en effet devenue la première femme directrice générale d'une compagnie aérienne. Elle est désormais à la tête de Precision Air depuis le premier mars dernier. Suda Said Rajab n'est pas une novice dans l'industrie du transport aérien en Afrique de l'Est. Elle a occupé différentes fonctions chez Kenya Airways ces 23 dernières années.

Cette femme de 49 ans remplace Alphonse Kioko qui a fait valoir ses droits à la retraite après avoir mené Precision Air sur un rythme de croissance rapide au cours des 10 années écoulées.

"Mon expérience en Tanzanie a été la partie la plus passionnante de ma vie tant sur le plan professionnel que personnel", a déclaré Alphonse Kioko. "Le succès de Precision Air provient de la bienveillance et du patronage de ses clients ainsi que de l'engagement de son personnel."

Precision Air affiche des chiffres impressionnants. Elle dispose aujourd'hui de huit ATR neufs et de deux Boeing 737-300. Elle a enregistré une croissance annuelle à 2 chiffres et des profits chaque année. La compagnie a également multiplié par 5 le nombre de ses passagers.

Suda Said Rajab est ravie d'avoir pu saisir cette opportunité et tient à faire fructifier l'héritage bâti par ses prédécesseurs. Elle a rejoint Kenya Airways en 1989 en tant que stagiaire.

Après sa formation, elle a rejoint le service de réservation de la compagnie où elle gravit progressivement les échelons. Responsable du Kenya, de la zone de l'Afrique de l'Est, de l'Europe, puis de l'Amérique et de l'Asie, elle était directrice des opérations du fret jusqu'à sa nomination à la tête de Precision Air. Suda Said Rajab est diplômée de l'Université de Nairobi et mène actuellement un MBA à l'Université de Strathmore.

*The first aircraft to be wholly designed and built in Africa is racing toward first flight and certification. Chuck Grieve reviews its progress.*

# Paramount puts Africa in the picture

**T**wo years is a very short time in aviation, especially when the focus of attention is all new: aircraft, manufacturer and market segment. A certain amount of scepticism might be expected.

Enter the ground-breaking advanced high-performance reconnaissance light aircraft (AHRLAC), the first aircraft to be designed and developed in Africa.

Revealed at the 2011 Paris airshow and launched that September in South Africa by the Paramount Group, it is heading for first flight in the second half of 2013 and certification before the end of the year.

The signs are positive. The wing of the

prototype had been completed by February, as had more than 200 hours of wind-tunnel testing and 80 flights of the one-quarter scale model.

Other main components of the aircraft are nearing completion ready for final assembly by engineers in the plant of technical partner Aerosud in Centurion Aerospace Village (CAV) near Pretoria.

Following extensive systems testing, AHRLAC will be ready to fly in the latter half of the year.

That first lift-off will be a moment to savour for the entire AHRLAC design team, and especially Paramount executive chairman Ivor

Ichikowitz and Dr Paul Potgieter. The two are credited with shepherding the aircraft from an idea to what is fast approaching reality.

Ichikowitz, a well-known South African entrepreneur and industrialist, is the founder and executive chairman of Paramount, Africa's largest privately-held defence group.

Potgieter, the managing director of aeronautical engineering expert Aerosud since 1990, was the man behind South Africa's Rooivalk helicopter.

He was programme manager and design engineer from the aircraft's inception in 1980 until after first flight in 1990.

Continued  
on Page 44



CONTINUED FROM PAGE 43

Ichikowitz has long been a proponent of African capabilities. He saw good aeronautical skills under-used in building components for other airframers. “We had the competence, but no one had the courage of commitment [to build an aircraft],” said Paramount chief executive John Craig.

Ichikowitz observed that high-performance supersonic aircraft – expensive to build, operate and maintain – were being flown on missions for which they hadn’t been designed. In Libya, for example, fighter aircraft were scrambled from Italy to deal with a ragged civil war. What was needed was a cost-effective piloted aircraft with good endurance and a wide range of missions.

UAVs did not meet his criteria, given their constraints of high cost, control security and complexity, limited payload capacity and the difficulties of operating in controlled airspace.

At its CAV innovation centre, Aerosud’s engineers were set loose on the task. It was, in the words of Craig, an “inspired” move. “The older engineers said it couldn’t be done; the younger ones were keen to try. Out of this group came the AHRLAC concept.

“That was about three or four years ago. Ivor bought into the idea and provided R&D funding and here we are moving quickly toward first flight,” said Craig.

**Fill a niche**

Paramount is counting on AHRLAC to fill a niche in the market with its combination of low acquisition cost, ease of operation, versatility and reduced requirement for MRO support.

Ichikowitz told interviewers that AHRLAC is a “market-driven project”. To get it to market as quickly as possible, the manufacturer has adopted an “innovative” approach by digitally designing, programming and manufacturing the aircraft. “We will move straight from design to full production,” he said, bypassing most of the usual interim steps.

The new aircraft has received “a lot of interest” from all around the world, including NATO countries, as well as across Africa and South America. One of AHRLAC’s attractions is its low price, which has been estimated at less than \$10 million.

Aircraft will be produced at a rate of two to three a month to satisfy market demand, which AHRLAC’s backers believe is “significantly” higher than that. They estimate it has the potential to generate annual revenue of up to R4 billion (\$450 million).

The manufacturing processes being used by Aerosud are advanced and ground-breaking. Paramount and Aerosud invested in state-of-the-art technologies, resulting in less human involvement in the process and manufacturing to far more accurate standards than usual. The time it takes to final assembly is significantly reduced, as computer-programmable machines manufacture parts.

Flexibility was one of the requirements of the new aircraft venture from its inception. This extended to the materials used in its fabrication. Although the current design makes limited use of composite materials in a mainly metallic structure, there is scope for change as the

## Capable, flexible, adaptable

**Everything about AHRLAC’s design points to capability, flexibility and adaptability.**

**The push-prop configuration gives the aircraft added stability and superior fuel efficiency during cruise with what the company describes as “jet-like characteristics”.**

**Combined with the high wing, this configuration results in excellent visibility for the two crew members, as well as maximising the effectiveness of forward-looking operational components.**

**The high wing anticipates rough-field operation, as does the retractable landing gear, which is optimised for semi-prepared surfaces and optional extra-large high flotation wheels.**

**The aircraft is just 10.5 metres long and 4 metres high, with a wingspan of 12 metres. Its maximum take-off weight is 3,800kg, including payload of 800kg, and with its short take-off and landing (STOL) and semi-prepared field capability, it will be able to operate from 550 metre strips with full payload.**

**It is powered by a single Pratt & Whitney Canada PT6A-66B engine rated at 950hp with potential growth to 1,600hp. Design cruise speed is 272-300kt (500-550kph). It has a large operating range of 1,150nm (2,100km) up to a ceiling of 31,000ft (9,500 metres).**

**It has a belly-mounted sensor pod that can be conformed in combinations of forward-looking infrared (FLIR) devices, search and rescue (SAR) radars, active and passive electronic warfare (EW) support measures and electronic signals and communication intelligence (ELINT/COMINT).**

**Its armament can include a 20mm fuselage-mounted cannon; six wing hard points will accommodate mission-specific ordnance.**

programme evolves. Similarly, Paramount is not ruling out development of a jet-powered version.

AHRLAC is designed to offer maximum platform flexibility for multi-role applications. The modular design supports basic airframe commonality for various configurations; its operational role can be changed quickly, thanks to its flexible ‘clip-on clip-off’ payload system.

Missions for which it is specifically designed include surveillance, policing, border/coastal patrol and anti-smuggling; armed patrol, close air support and counter insurgency operations; disaster relief and emergency supply to remote areas; forward air controlling and intelligence gathering. It will be able to loiter for seven hours.

“AHRLAC is capable of rapid deployment and fast response times with high cruise and dash speed and extended range,” said Craig. “Because of the operational simplicity of this aircraft, in times of need, we can get this thing on the road to areas where it is required with limited support assistance.”

Paramount sees it as a revolutionary aircraft that will maintain the dominant role of the pilot in civil and military flight. “We have produced an aircraft that is autonomously capable and offers high survivability, with none of the sub-systems costs related to the operation of UAVs,” said Craig.

Demand for AHRLAC, he added, has been surprising. As yet it doesn’t have a launch customer, but there is “a long line of potential customers”, including NATO members interested in acquiring the intellectual property. It could be the start of a whole new industry in South Africa.”

There’s more riding on AHRLAC than commercial success. Ichikowitz said as much at the unveiling of the project two years ago. “AHRLAC deserves to be recognised as an amazing African achievement.”



Ivor Ichikowitz: What was needed was a cost-effective piloted aircraft with good endurance and a wide range of missions.



# We Create Airline Pilots

## Introducing Our New Professional Pilot Training Program

Pan Am International Flight Academy is known for training Airline Pilots from all over the world. Now let us train your cadets like we train your Airline's Pilots. Our FAA and EASA approved courses incorporate all of our experience into an Advanced Professional Pilot Program that not only gives your pilots more basic and advanced ground training and flight time but also incorporates 50 hours of Full Motion Simulation and Airline Emergency Training.

**Pan Am — Where Airlines Train their Pilots.**

[PanAmAcademy.com](http://PanAmAcademy.com)

877-394-2118 Int'l. +1 303-394-2118



MIAMI - LAS VEGAS - DENVER - MINNEAPOLIS - CINCINNATI - MEMPHIS - EUROPE - TOKYO

Logon to subscribe for FREE [www.africanaerospace.aero](http://www.africanaerospace.aero)

**Subscribe now** and never miss an issue.

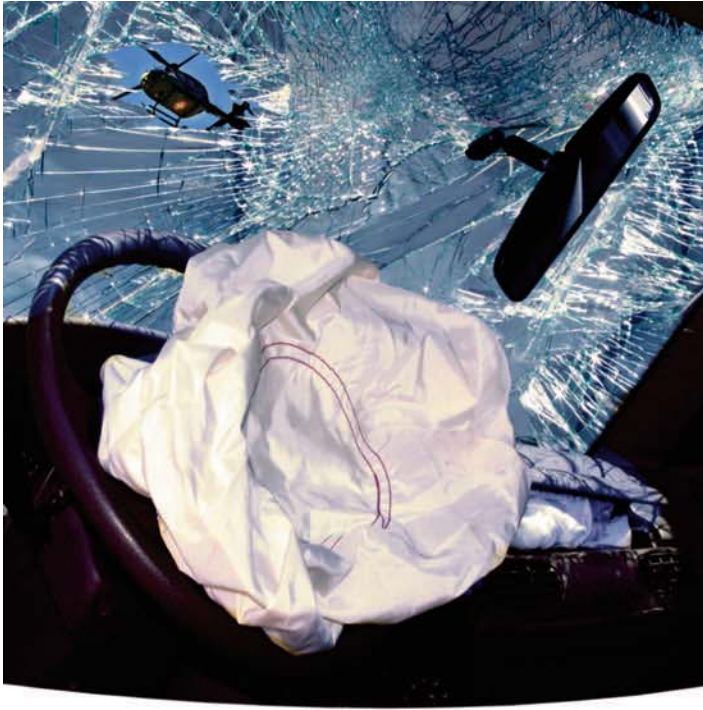


African Aerospace is a new magazine and daily online news service covering all things Aviation, Security and Defence across Africa.



@ArabianAeroNews

Scan our QR code to subscribe for free.



**Our equipment can't turn back  
the clock.**

**But it can preserve precious  
lifesaving seconds.**

When seconds count (and when don't they?) you can trust the alert responsiveness built into our life-support systems. We're Spectrum Aeromed – recognized as a world leader in designing and manufacturing of life-support equipment and custom medical interiors. Give us a call or visit our website to find out how we can enhance the productivity of your crew and their abilities.

**Spectrum-Aeromed.com 701.235.5478**



**SPECTRUM**  
Aeromed > Supporting life.

*Russian-built helicopters are already used extensively throughout Africa and there are high hopes for further sales.*

**Jon Lake** takes a look at the situation.

# From Russia with love...

**A**s Africa decolonised, many of the newly independent emerging nations embraced Marxist/Leninist political ideas and philosophy and naturally turned to the USSR for support, assistance and aid, or for the supply of weapons.

A number of emerging African states chose to spend money on supersonic fighters, though these often proved difficult to keep serviceable and frequently remained in hangars – being used only for occasional ceremonial fly-pasts commemorating the anniversary of a nation's independence.

By contrast, helicopters were more versatile and more useful, and Russian-designed helicopters (built for service in the USSR's most remote and rugged regions) proved particularly well-suited for African requirements.

In north Africa and the Middle East, nations like Algeria, Libya, Egypt, Iraq and Syria built up large, modern air forces along Soviet lines, and acquired numerous transport and combat helicopters in the process, ranging from Mil Mi-2 'Hoplite' liaison helicopters to the mighty Mil Mi-6 'Hook' heavy transport, and from unarmed transports to specialised gunships like the Mil Mi-24/25/35 'Hind'.

In sub-Saharan Africa, the variety of helicopter types procured for new air arms was slightly less, but the Mi-8 'Hip' (and the up-engined Mi-8MTV or



The Mi 17 and the Mi 8 (below) found willing homes in sub-Saharan Africa in both military and civilian roles.



Mi-17) and Mi-24/25/35 'Hind' proved popular across the continent.

The Mi-8 and Mi-17, in particular, have demonstrated their worth as both military and civilian helicopters in Africa, accounting for the majority of the 300-600 Russian helicopters that are variously estimated to be in service on the continent (of a total global fleet of 8,500 Russian-made helicopters currently operated in more than 100 countries worldwide – representing some 14% of global market share in 2010).

Rugged, versatile and capacious, the 'Hip' can carry up to 32 passengers (according to variant), or can be armed with rocket pods, gun pods or even free-fall bombs.

There are dozens of specialised variants of the helicopter, carrying out roles as diverse as electronic warfare to serving as flying hospitals. The latest versions have much improved hot-and-high performance, and feature advanced avionics, glass cockpits, and night vision systems.

The latest upgrade to the Mi-8/17 family – the Mi-171A2 – was actually launched in September 2012, with the Africa Aerospace and Defence show in Pretoria immediately following the ILA show in Berlin, at which the type was formally unveiled.

The Mi-171A2 incorporates more than 80 improvements

Continued  
on Page 48



CONTINUED FROM PAGE 47

compared to the existing Mi-171, including a new and improved rotor system with composite blades, a stronger transmission system and a Delta-H (X-shaped) tail rotor.

The Mi-171A2 has a glass cockpit, with multi-function LCD displays, and promises increased range on internal fuel (up to 850km), increased external payload (up to 5,000kg) as well as higher cruising speed and more generous crosswind limits.

The Mi-171A2 is designed to operate in extreme climatic conditions of +/- 50° Celsius (from -45° to +120° Fahrenheit). The new aircraft is also intended to offer significantly reduced running costs. It is expected to enter production in 2014.

When Thailand bought Mi-17s instead of US Sikorsky Blackhawks, an RTAF spokesman explained: "We are buying three Mi-17 helicopters for the price of one Black Hawk and the Mi-17 can also carry more than 30 troops, while the Black Hawk could carry only 13 soldiers."

This price advantage has proved even more compelling for African operators.

The Mi-24/25/35 is a dedicated helicopter gunship derivative of the 'Hip', though unlike its Western counterparts (e.g. the Boeing AH-64 Apache and Bell AH-1 Cobra) it has a small cabin, allowing it to carry eight soldiers, anti-tank missile teams, spare parts or reloads for its own weapons' stations.

Combat-proven during the long Soviet involvement in Afghanistan, the 'Hind' saw active service in the Chad-Libya War, and in conflicts in Angola, the Congo, Cote d'Ivoire, Sierra Leone, Somalia, and Sudan.

Interestingly, the most advanced version of the 'Hind' in service today is the result of an African designed and developed upgrade.

The Mi-24 SuperHind, used by the Algerian Air Force, enjoys a series of upgrades produced by South Africa's Advanced Technologies and Engineering (ATE).

The Mi-24 SuperHind Mk.III incorporates a new extended nose with modern electro-optical sensors and an under-nose Vektor F2 20mm gun turret. The redesigned cockpits have modern avionics and systems, including NVG-compatible helmet mounted displays, a digital HUD, a new TV/FLIR sighting system, and new mission computers, GPS, and a NATO-standard IFF system.

The type incorporates new defensive aids and an optoelectronic rotor balancing system, and can be armed with eight Kentron ZT35 Ingwe or ZT6 Mokopa laser-guided anti-tank missiles.

The latest SuperHind Mk.IV adds a Pall vortex engine air particle separator system over the engine intakes.

The South African upgrade is a compelling alternative to Mil's own advanced 'Hind', the Mi-35M, which



Numerous transport and combat helicopters ranging from Mil Mi-2 'Hoplite' (above) liaison helicopters to the mighty Mil Mi-6 'Hook' heavy transport (left) have been selected by North African air forces.

offers true day/night capability in even the most adverse weather conditions.

Both the 'Hip' and the 'Hind' remain key items in the product line offered by Russian Helicopters. The new, consolidated helicopter company was formed in 2007 from the Mil and Kamov design bureaus and a host of helicopter manufacturing plants including the Progress Arsenyev Aviation Company; Kazan Helicopters; the Kumertau Aviation Production Enterprise; Rostvertol; and the Ulan-Ude Aviation Plant; as well as the Stupino Engineering Productive Enterprise and the Reductor-PM plant, which produce rotorcraft components.

Russian Helicopters is a subsidiary of the Oboronprom United Industrial Corporation (UIC), and has been the sole vendor of Russian-built civilian helicopters to foreign clients since consolidation of Russia's helicopter manufacturing sector was completed in 2010. Military sales are undertaken in conjunction with Rosoboronexport.

Other types that Russian Helicopters are particularly promoting in Africa include the new lightweight multi-role Kazan Ansat, designed as a light utility helicopter to replace the Mil Mi-2 'Hoplite'. Kazan hopes that the Ansat will be a neat 'fit' to meet emerging African requirements for advanced light utility helicopters, for passenger and cargo transport, HEMS, and law enforcement/internal security duties. There is even a dedicated Kazan Ansat-2RC tandem-seat gunship derivative.

Russian Helicopters is also promoting the medium-weight Kamov Ka-32A11BC in Africa. Certificated by EASA in 2009 and now being delivered to buyers on all

continents, the Ka-32A11BC offers a compelling blend of performance, precision, manoeuvrability and multi-role versatility thanks, in part, to its innovative coaxial rotor configuration.

The Ka-32A11BC offers particularly effective fire-fighting capabilities, using under-slung 'Bambi' type buckets or a horizontal water cannon system.

Another type that Russian Helicopters hopes will win orders in Africa is the Kamov Ka-62, planned for certification in its new, Turbomeca Ardiden 3G turboshaft powered form in 2014. The Ka-62 is a civil derivative of the military Ka-60, with a five-bladed main rotor, and a revised cabin with larger windows and new avionics.

Russian Helicopters has teamed with South Africa's Denel Aviation to create a helicopter-servicing hub in Africa, to offer new service and maintenance options for African operators.

The two companies signed an agreement on September 19 2012, under which Denel Aviation has become the only company in sub-Saharan Africa accredited to perform MRO services for aircraft produced by Russian Helicopters.

This further moves the South African company toward its objective of becoming the premier maintenance hub for most of the modern commercial and military aircraft operating in sub-Saharan Africa and gives Russian Helicopters a partner that will provide a complete customer care programme for its clients on the continent at its facilities at the OR Tambo International Airport in Kempton Park.

Denel Aviation engineers and technicians will also perform emergency repair work on helicopters across the continent, and at short notice.

Denel Aviation technical staff started to attend intensive training programmes on the latest Russian Helicopters models in the eastern Siberian city of Novosibirsk from October 2012.

The most advanced version of the 'Hind' in service today is the result of an African designed and developed upgrade.

# Angola receives first three Super Tucanos

Embraer Defense and Security has delivered the first three light attack and advanced training A-29 Super Tucano turboprops to the National Air Force of Angola.

The aircraft were handed over at a ceremony held in Embraer's facility in Gavião Peixoto, São Paulo, Brazil.

These are the first three from a total order for six aircraft.

Angola is now the third operator of the Super Tucano in the African continent. The aircraft will be used for border surveillance missions.

"The selection of the Super Tucano by the National Air Force of Angola demonstrates the great potential of this aircraft in Africa," said Luiz Carlos Aguiar, president of Embraer Defense and Security. "It is a robust, versatile and very efficient combat-proven aircraft with low operating costs and has generated great interest among other African nations."

Ten clients around the world have already chosen the A-29 Super Tucano, which is being currently used by nine air forces in Latin America, Africa and Asia. More than 160 aircraft are already in operation and, so far, this international fleet has logged more than 170,000 flight hours and 26,000 combat hours.

The A-29 Super Tucano is able to carry out a wide range of missions, including light attack, surveillance, air-to-air interception, and counterinsurgency.

The aircraft is equipped with advanced electronic, electro-optic, infrared, and laser system technologies,



as well as secure radio systems with data links and unrivalled weapon capacity, which makes it highly reliable and allows for an excellent cost-benefit ratio for a wide range of military missions, even operating from unpaved runways and in hostile environments.

The A-29 Super Tucano handles more than 130 weapon configurations, including 70mm rocket launchers, air-to-air missiles and laser-guided bombs totally integrated into the aircraft's mission system, with a laser designator. These state-of-the-art smart weapons are employed in real operational missions carried out by the Super Tucano for more than five years.

The aircraft is the result of a project developed to the rigorous specifications of the Brazilian Air Force.

It is totally compatible with combat operations in complex scenarios, in which data exchange and information processing capabilities are demanded.

In addition to a reinforced airframe for operating on unpaved runways, the aircraft has advanced navigation and weapon aiming systems, which assure high precision and reliability, using both conventional and smart weapons, even under extreme conditions.

The aircraft requires minimal logistical support for continued operations.

## TOTAL SUPPORT THROUGHOUT THE AIRCRAFT LIFECYCLE

**TECHNICAL SUPPORT**

**RATE PER FLIGHT HOUR**

**SPARES**

**MODIFICATIONS**

**CONTINUED AIRWORTHINESS**

REGIONAL AIRCRAFT

[regional-services@baesystems.com](mailto:regional-services@baesystems.com)

**BAE SYSTEMS**

REAL SUPPORT. REAL ADVANTAGE.



■ AfBAA's founding members held the first of its biannual board meetings in Rabat, Morocco at the beginning of March, to discuss continued activity and strategic plans for 2013.

In addition to the general meeting, AfBAA attended a meeting with Aziz Rebbah, minister of equipment and transport for the Kingdom of Morocco, as well as the country's Civil Aviation Authority, to discuss the business aviation landscape in Morocco and to explore AfBAA's role within the sector.

"Through advocating the importance of business aviation as an economic driver to these key stakeholders we can increasingly make government bodies aware of the significance of business aviation," said chairman Tarek Ragheb. "In this case we were able to demonstrate our committed dynamic approach and received an extremely positive response from the Moroccan authorities who recognise the value of the community in Morocco and further afield on the continent." The board is pictured on arrival in Rabat.

# WEALTH OF OPPORTUNITY

*Africa is hot. Not just because of the arid desert temperatures across its northern part, but also because it is home to rapidly rising wealth – and, as Liz Moscrop reports, the rest of the world is sitting up and taking notice.*

**M**ykolas Rambus, CEO of investment advisors Wealth-X, estimates that there are 200,000 ultra-high-net-worth individuals worldwide, including 2,200 billionaires. This group grew 14% last year, with the African contingent growing by 9-10%.

Business jet manufacturers have sat up and taken notice.

Speaking at the recent Corporate Jet Investor Finance Conference in London, Embraer Executive Jets' COO, Marco Pellegrini, said: "The African market is improving all the time. All the OEMs are trying to get in there."

Financiers, too, want to be there – albeit with caution.

Although now a global bank, Investec started

out as a South African leasing company in 1974 and is still committed to the continent. The bank won the Corporate Jet Investor (CJI) African and Middle Eastern business jet financier of the year award in February for its work in Africa.

Investec has four aircraft specialists in Johannesburg who focus on deals, and has close relationships with manufacturers and operators. It is seen as a particularly valuable partner as it is prepared to consider countries that many other banks might not.

The South African team has closed deals all over Africa including Nigeria, Ethiopia, Madagascar, Mauritius and its home market of South Africa.

Melanie Humphries, head of

Continued  
on Page 52

# We are here for you.

## Your African partner for regional and global trip management.

**European-based Operations Centre**  
24/7 regional and global trip support services.

**UVair® Fuel Programme**  
UVair Fuelling Card accepted at over 2,000 airport locations across Africa and the world.

**Universal Aviation<sup>SM</sup>**  
Ground support in 48 locations globally, providing regional and local expertise.

**Global Regulatory Services**  
We live and breathe the regulations like EU-ETS and SMS so you don't have to.

**Online Trip Tools**  
Tools designed to make your life easier, such as online flight planning, weight and balance, runway analysis and iPad® solutions.

**For permits throughout Africa contact our Africa-based team.**

Tel.: +255 282 981 010 • Fax: +255 282 981 001

24 Hr Support: +255 786 055 407

[africanflightpermit@univ-wea.com](mailto:africanflightpermit@univ-wea.com)

[www.africanflightpermit.com](http://www.africanflightpermit.com)



**Our shared purpose is the success of your trip.**

To learn more about any of our solutions visit us at EBACE 2013, Exhibit #363, 21-23 May, Geneva, Switzerland, or contact our sales team.

Tel.: +971 4298 5562 • [africasales@univ-wea.com](mailto:africasales@univ-wea.com) • [universalweather.com](http://universalweather.com)



CONTINUED FROM PAGE 50

aviation finance for Africa, said: "We don't have a list of countries that we will not consider. That is not our approach. We don't have a checklist of things we are looking for; instead we like to find ways of doing deals."

She continued: "What's happening globally affects Africa. It is fair to say there is optimism here. The UK is in triple dip recession. There is further depreciation on the Euro projected for 2013, and there is general tension across Europe. What happens in the Eurozone dampens global sentiment."

She pointed out that the countries in the Eurozone are major trading partners with Africa, and added that some international banks were contracting their USD lending books. She said: "Globally growth is under pressure."

So people are turning to Africa. Humphries said that the economies there are rising and that the business aviation market there is growing fast, with an increase in private aircraft predicted at just under 50% over next 20 years.

She added that 10 of the top 20 growing economies in the world are in Africa.

Financing is still an issue. According to Humphries, the way forward is for banks to be creative, and for borrowers to be aware of the challenges they face. She pointed to an emergence of regional and local banks and financiers of business aircraft, and added that a strong counterparty is vital for lenders. She suggested that political risk insurance would mitigate jurisdictional risks, and that financing aircraft has to be "tailor made to overcome challenges in certain jurisdictions", adding that Asian banks were already highly involved.

**Transparent accounts**

For borrowers, she recommended having transparent accounts, with strong cashflows and balances, as well as regular and clear maintenance records to help sustain the asset's value. She also emphasised the importance of a strong tripartite relationship between the bank, the operator and the owner to help offset risk. She suggested that banks might view a special purpose vehicle favourably, meaning that the aircraft would fly on an offshore ticket, rather than a local registry.

She also recommended buying engine and airframe warranties, providing clear management accounts, including historic audited financials for three years, and clear ownership and shareholder details.

For lenders she said that, should due diligence prove to be a problem, investors could partner with local financial institutions to protect themselves. She added: "We don't have to be the lead arranger of a transaction. We have no objection to partnering with local banks."

There is a clear appetite for more aircraft in Africa. Segun Demuren, CEO of Evergreen Apple, Nigeria's first FBO said: "The new and increased discoveries in oil and gas in every part of the continent has seen more investment and now, more than ever, participation from local



**"More companies are now looking to business jets as a tool to move them around in a timely and safe manner."**

SEGUN DEMUREN

companies in the lucrative extractive industries.

"We are seeing new discoveries from Ghana to Niger, Cameroon to Tanzania, Mozambique to Uganda, and even more discoveries from the larger producers, Nigerian and Angola. With regional transport still a challenge due to reliability and infrastructure, more companies are now looking to business jets as a tool to move them around in a timely and safe manner."

Evergreen is a founding member of the African Business Aviation Association (AfBAA), which has just published its inaugural white paper. Dr Winston Mahabir, a former diplomat, who has worked with Gulfstream and Hawker Beechcraft and had extensive interaction with regional ministries of transport, wrote the document detailing the barriers facing the sector's evolution. It also offered a series of recommendations that aim to support and encourage growth.

The paper highlighted the absence of infrastructure; security and safety concerns; exceptionally high landing fees; manpower

shortages; insufficient training; non-compliance with legal requirements; taxation, and a general misconception across the continent about how business aviation could support economic development.

AfBAA suggests solutions including: increased dialogue with the transport ministries of Africa; participation at national and international aviation airshows; political lobbying, and education about the benefits of using private jets to conduct business.

Business aviation's effectiveness in Africa requires a radical rethink, including developing more effective safety and security systems. Access to airspace and airports is costly – when they are even available. There is also a lack of useful connectivity between airfields, with poor infrastructure, such as airways, navigation and ATC facilities. Throw an under-resourced workforce into the pot, plus expensive registration and operation taxes, and you see a world of difference between the continent and a developed region, such as the US or Europe.

AfBAA argues that the key to solving these problems is education. It is important that ministers and those working in the field understand and comply with international standards. As is the case worldwide, users have to educate non-users on the benefits of business aviation as a tool for economic growth.

**Outlined a strategy**

The organisation has outlined a strategy to tackle these issues that incorporates communicating with the African ministers of transportation and directorates general of civil aviation through the Fifth Committee of the African Union.

AfBAA also needs to be a vocal advocate for eliminating corruption. Many private flights into Africa operate from jurisdictions where anti-corruption legislation is tough and enforceable – particular examples are the US FCPA and UK anti-bribery laws. Larger aviation departments require far greater transparency on how their money is spent.

However, the most pressing problem for African aviation is safety. In May 2012 IATA, ICAO and a host of other organisations, committed to an Africa strategic improvement action plan aimed at addressing safety deficiencies and strengthening regulatory oversight in the region by 2015.

The plan is based on key priorities, which are: an effective regulatory oversight system, including mandating the implementation of the IATA operational safety audit (IOSA); implanting runway safety measures; training on preventing loss of control; collating flight data analysis, and implementing safety management systems.

The association is hopeful. Chairman Tarek Ragheb said: "We now have a single document outlining the essential areas we need to focus on. It demonstrates that AfBAA is a vibrant body that genuinely wants to advocate on behalf of stakeholders in Africa."



## Kodiak's new quest in Africa

**Alan Peaford**  
*reports on a new sales push and a new VIP variant for an aircraft that can reach Africa's remotest corners.*

**A**n aircraft that was originally designed to meet the needs of missionaries working in remote areas with rugged terrain could soon be finding a place in Africa's business aviation scene.

The aircraft in the Quest Kodiak, a high-wing, unpressurized, turboprop-powered fixed-tricycle-gear aircraft built by Quest Aircraft of Idaho and has now proved itself as being suitable for humanitarian applications in unimproved areas. A skydiving version has also been certificated.

But a new dealer for Africa – SkyQuest International – who was appointed in January, will also be promoting a new Timberline version of the aircraft which can bring VIP level comfort to access even the most remote areas such as mining sites, villages or isolated tourism spots.

Passenger seats in the Kodiak are track-mounted and easily removed. It has standard access doors for pilot and copilot positions, with a clamshell door (48.5" x 50") in the aft fuselage for cargo loading or for access to the other eight passenger positions (the lower half of the clamshell door has automatically extending/retracting steps).

"The Kodiak is a very rugged, versatile and niche product," said Quest chief executive Sam Hill. "The aircraft entered service in 2007 and our main markets so far have been government, humanitarian, cargo, and charter operators.

"We are confident that it will find a niche as a small corporate and VIP aircraft as there are plenty of individuals and company executives who need to access remote regions of the world. The Timberline interior with its restyled leather seats and other cabin refinements will allow them to get there in more comfort."

As well as Africa, Quest is beefing up its sales

push to South and Central America, and Asia.

The manufacturer had previously been represented in the continent by South Africa's NAC group.

SkyQuest International has launched a division SkyQuest Kodiak Sales Africa, to be responsible for Kodiak sales and marketing activities throughout Africa.

"We are pleased to welcome SkyQuest to our dealer organisation," said Steve Zinda, vice president, sales, marketing and customer service.

"Their knowledge, expertise and extensive list of worldwide clients will be a great asset to our sales efforts in Africa."

"The Kodiak is a perfect fit for the customer base we have served for the past 25 years," said Greg Melang, president and founder of SkyQuest International. "We look forward to a long and successful relationship with Quest and are proud to be their representative in the markets we serve."

The Kodiak is proving to be reliable in the harshest of conditions. It is fitted with the Pratt & Whitney PT6 turbine engine and is capable of working off floats without structural upgrades. It can take off in under 1,000 feet at full gross

takeoff weight of 7,255 lbs and climb at over 1,300 feet per minute. A three-panel Garmin G1000 integrated avionics suite including Synthetic Vision Technology is standard equipment on the Kodiak.

The new VIP version has a certified air conditioning system and features Kydex panels with composites, which contribute to a weight reduction and thus improve the useful load. In addition, the interiors include a refined headliner, enhanced soundproofing, sidewall storage pockets, restyled cockpit seats and centre pedestal closeouts.

**"The Kodiak is a perfect fit for the customer base we have served for the past 25 years."**  
**Greg Melang**

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/>





# Atlantic leads the new wave in Nigeria

*General aviation in Nigeria could soon be receiving a major boost if plans put forward by UAE-based fuel supplier Atlantic FuelEx come to fruition. Steve Knight reports.*



**Rani Awad: dedicated service for GA customers.**

**T**here are big plans for Murtala Muhammed International Airport in the Nigerian capital of Lagos. George Uriesi, managing director of the Federal Airports Authority of Nigeria (FAAN), confirmed recently that his organisation would be embarking on a number of projects in the next few months, including a multi-storey car park, hotel and a new international terminal. He added that work would peak in June.

Coincidentally, that's around the same time that global fuel provider Atlantic FuelEx hopes to be launching its new service to the ever-growing Nigerian general aviation (GA) community.

President Rani Awad said: "We are planning to launch a dedicated service just for GA customers, which we believe will be the best they have ever received."

"Traditionally GA has suffered because commercial airlines have been given priority. They are larger, with greater needs and with more money. It is no surprise that GA customers are often pushed to the back of the queue."

"Now, if our plans go ahead, all that will change and GA customers in Lagos will enjoy a first class service."

#### Strategic partnership

Atlantic FuelEx has signed a jet fuel strategic partnership deal with Lagos-based Oando Aviation, one of the largest providers of jet fuel to the aviation industry in Nigeria.

"As long as our plans are approved by the Nigerian authorities, we plan to have a bowser permanently on site dedicated to servicing the needs of GA customers," said Awad. "The discussions are well advanced and I am very hopeful that everything will be up and running by the second half of 2013 – possibly even as early as June."

If the plans go through, Awad said there would be additional benefits to the GA community. "At the moment GA fuel is something like 36% more expensive than for commercial airliners," he said. "We believe we will be able to cut that by about 11 or 12%."

"Also, in addition to receiving top-quality fuel, our

customers will benefit from an exclusive insurance deal that will see them covered for up to \$1 billion."

Teaming up with Oando is quite a coup for Atlantic FuelEx. Oando is a strategic partner of IATA, an associate member of the joint inspection group (JIG), and is certified by the Department of Petroleum Resources (DPR) and Standards Organization of Nigeria.

Lagos is just one of a number of initiatives currently being put in place by fast-growing Atlantic FuelEx, which provides high quality products to commercial carriers, corporate organisations and governmental entities alike.

The company, which recently opened new offices in Florida, USA and Turkish capital Istanbul, works closely with clients by alerting them round-the-clock on internationally fluctuating fuel prices.

#### Tailored advice

It also provides related services, such as fuel management, unique VAT-exempt and VAT-compliant aviation fuel policies, tax consultation (Federal Excise Tax, state, local, etc) and zero-cost consultation, as well as offering tailored advice for ideal refuelling locations to maximise savings.

"Our specialised team work together with our allied fuel suppliers, into-plane agents, and FBOs, to consistently provide fast, reliable, high-quality products anytime, anywhere," said Awad.

Atlantic FuelEx is now aiming to make quite an impact at the Aviation Suppliers and Stakeholders Convention (ASASC) at the Panari Hotel in Nairobi, Kenya, from June 16-18.

Now in its second year, this African Airlines Association (AFRAA) initiative brings together operators and service providers with the view to foster dialogue, build sustainable networks in supply chain management, create a competitive environment for business and improve the aviation business support base in the continent.

"Atlantic FuelEx is all about raising quality throughout our entire industry so a convention like this is just where we want to be," concluded Awad.



When you keep  
**AIMING  
HIGHER**

for more than 50 years, there's no  
such thing as cruising altitude.

More than fifty years ago, a new way of handling business aircraft transactions took off ... the Jetcraft way. Seeing every customer as unique. Working harder on every deal. Building a global network with local expertise. Today, we're one of the world's top aircraft brokers, and we are here to serve your aircraft sales, acquisitions and trading needs. — Always aiming higher for you.

[www.jetcraft.com](http://www.jetcraft.com) | [info@jetcraft.com](mailto:info@jetcraft.com) | Headquarters +1 919-941-8400

**JETCRAFT**

*Eleven rhinos have been tracked down, darted and then plucked out of the bush in an amazing operation to save their lives. Steve Knight talked to helicopter pilot Tosh Ross, who completed the airlift.*

# HAUL OF THE WILD

**M**illions of people watched awestruck on TV as the iconic shot of a one-and-a-half tonne rhino, suspended by its feet and dangling upside down on a chain below a helicopter, was beamed into their homes.

The documentary was called *Flight of the Rhino* and it highlighted the devastating impact of rhino poaching and the efforts taken by conservationists to save South Africa's rhino population.

The film followed efforts to translocate rhinos from Hluhluwe-iMfolozi Park in South Africa to a secret location as part of the WWF South Africa black rhino range expansion project (BRREP).

What the film didn't say, however, is that the helicopter pilot charged with gently hauling the huge endangered animals out of the bush and then transporting them across the skies to a safe landing area for onward transport by truck, is probably more used to flying long-haul passengers out of Johannesburg on an Airbus A340.

For Tosh Ross, the 47-year-old

Continued  
on Page 58



CONTINUED FROM PAGE 57

Huey pilot for Bird-Dog Aviation, is also Tosh Ross, the South African Airways Airbus 340 co-pilot.

Ross has been flying for the last 27 years. He was born in Dar Es Salaam in what was then Tanganyika but grew up and went to boarding school in Scotland, as well as two final years in South Africa. He lives in Nelspruit in the north-eastern part of South Africa, close to the Kruger National Park.

"I had always wanted to fly from an early age and, after school, I started hang-gliding and working towards getting my PPL, which I obtained in 1989, and my CPL two years later," he explained.

"I started flying helicopters in 1994 and have kept both my fixed and rotor wing licences valid ever since. I presently hold ATP licences and instructor ratings on both aeroplanes and helicopters. I have been involved in various disciplines in aviation over the years, from contract work, survey, emergency medical service and fire-fighting, to name a few.

"At present I am employed full-time for South African Airways as a co-pilot on the A340, having been on the B744 until they retired the fleet two years ago. However, when time permits, I fly part-time for Bird-Dog Aviation to satisfy the helicopter urge."

#### Rhino project

Ross became involved in the rhino project in 2009 when Bird-Dog Aviation was tasked with moving some black rhino in the Umfolozi Game Reserve.

Since those early days, Ross has now airlifted 69 rhino in total.

A Vietnam veteran 1965 model Bell UH-1H was used for the lifting work in the Hluhluwe-iMfolozi Park project and Vere Van Heerden, from Helicon, flew his MD500 doing all the animal darting from the air.

"The Huey had a few modifications," explained Ross. "Firstly, it has a 1,800 shaft horsepower engine, a Lycoming T53-703, which gives it a big advantage when operating in the hot and high conditions that we typically experience here.

"Secondly, it has composite tail rotor blades from Van Horn Aviation that give us added tail rotor control, as well as a 'fast fin' with the tailboom strakes.

"Thirdly, it has been modified to operate from the left-hand seat position with a bubble window



■ South Africa is home to 83% of Africa's rhinos and 73% of all wild rhinos worldwide. However, over the past seven years, rhino poaching has dramatically escalated, with 668 rhinos poached during 2012 – 66 of them in KwaZulu Natal, where the Flight of the Rhino documentary was filmed. This included the brutal killing of an entire rhino family in Hluhluwe-iMfolozi Park, where eight died in one day.

So far in 2013, a further 96 rhinos have been killed.

Rhinos are killed for their horns, which have been used in traditional Chinese medicine for thousands of years.

However, more recently, rhino horns are increasingly being used for non-traditional purposes such as hangover cures and a body detoxification, especially in Vietnam. This is despite rhino horn being made from keratin (the same material found in human hair and nails) and having no proven medicinal benefits.

and a full set of engine gauges in the lower portion of the door. This allows you to keep an eye on all the engine parameters while doing vertical reference operations.

"And, lastly, it has the medium height cross-tubes that allow us to land in some places that would be impossible with the standard gear, as it gives nearly half-a-metre more ground clearance for the belly of the aircraft."

Ross admits that there's not much specialist training that can be done for an operation like airlifting rhino.

"The majority of the flying with these aircraft is forest fire-control utilising a 1,200 litre 'bambi bucket' on a 10 metre strop, so we are no strangers to external load ops," he said.

"However, for this particular job we use a 30 metre sling with another 15 metres of chain. This allows us to better position the load, as well as get the chain through the canopy if the rhino goes down in the trees.

"It saves a tremendous amount of time by not having to clear any bush first before we can lift it out. The only special training is to be proficient at vertical reference, which is easier said than done as I am by no means an expert."

#### Special precautions

So, are there any special precautions or techniques needed when flying with rhinos attached?

"Before we actually lift the rhino off the ground we need to ensure that the strops around the feet are under equal tension; if they are not, the rhino tends to spin as we increase forward speed. This can take an extra minute or so, but makes the leg to the drop-off point much less stressful," explained Ross.

"The forward speed is limited to about 60 knots due to the increased drag on the helicopter, although we normally just set about 25 to 30 psi on the torque gauge, depending on the weight of the rhino."

Each lift has its own particular moments and Ross admitted that the sense of relief once the animal is safely down is huge.

"A special mention must be made to all the vets and ground crew that we have worked with doing this kind of work over the years," he said. "It really is a team effort and I am very humbled to have been involved with some truly great people. I also thank my wife, who has always supported my flying career."

One card for  
all your aircraft  
expenses

One app  
for all your  
acceptors

**MS MULTI SERVICE AERO**  
Pay with the Powerful Card.

**+31 70 770 3222**  
[www.multiserviceaero.com](http://www.multiserviceaero.com)



EVERGREEN APPLE NIGERIA

HANGAR JET CENTER

TOUCH DOWN TO CLASS

AT THE FIRST

FBO

IN NIGERIA



**OUR FACILITY**

- First world class FBO in Nigeria
- VIP and Crew lounges
- Crew rooms for overnight or short stay
- Secure parking and 24 hour access
- Direct access to aircraft and apron from VIP Lounge
- Serviced offices
- AMO approved facility
- Closed hangar space

**OUR SERVICES**

- International and domestic handling
- EASA line maintenance
- FAA licensed engineers
- Crew Transport
- In-flight catering
- Full ground handling services
- Fuel co-ordination
- 24 hr dispatch services

COMFORT | PRIVACY | LUXURY | EASE

EAN Hangar Jet Center | Murtala Mohammed International Airport, FAAN Transit Camp Road, Ikeja, Lagos.

T: +234 (0) 1 295 0960 | E: [info@evergreenapple.com](mailto:info@evergreenapple.com) | W: [www.evergreenapple.com](http://www.evergreenapple.com)

Call sign: EAN Dispatch Radio | Radio: VHF 129.475



**We understand that the longer your aircraft is on the ground, the less business you're doing in the air.**

**Postal Address:** SAA Technical (Pty)Ltd.  
Private Bag x12  
Johannesburg international  
Airport  
South Africa, 1627

**Tel:** +27 (0) 11 978 9993  
**Fax:** +27 (0) 11 978 9994  
**Email:** SATMarketing@flysaa.com  
**Website:** www.flysaa.com/saa\_technical

SAA Technical holds the following:  
South Africa CAA - (AM01)  
United States FAA - (DW5Y820M)  
EASA 145 - (EASA 145.0136)





A Monastir, en Tunisie, Sabena Technics détient, avec la compagnie charter Nouvelair, une coentreprise de maintenance.

# SABENA TECHNICS SUR LA VOIE RAPIDE

*Le spécialiste de la maintenance poursuit son développement en Afrique, malgré quelques obstacles.*

**Par Thierry Dubois.**

« En Afrique, nous signons des contrats tous les ans » : pour Jean-Luc Fournel, directeur général adjoint clients chez Sabena Technics, le potentiel du continent n'est plus à démontrer. L'entreprise française de maintenance, filiale du groupe TAT, y compte une vingtaine de clients et une implantation majeure, en Tunisie. Malgré des conditions pas toujours idéales, Sabena Technics continue à miser sur l'Afrique.

L'entreprise y fournit des services de maintenance conformes à la norme européenne AESA Part 145. Cette région du monde est relativement modeste dans le chiffre d'affaires. Elle en représente 6 % mais « cette part est en croissance », relève Jean-Luc Fournel. Le développement de nouvelles compagnies devrait soutenir la tendance.

L'environnement africain est-il favorable à l'activité de Sabena Technics ? « Pas partout », reconnaît notre interlocuteur. Certaines zones ne

sont pas sûres. D'une manière générale, des difficultés logistiques subsistent bien que les infrastructures de transport aérien s'améliorent. Les temps de passage en douane sont longs. La fréquence des vols reste insuffisante vers l'Europe. Afin de surmonter ces obstacles dans l'acheminement des pièces, les stocks sont plus importants qu'ils ne le seraient en Europe.

Les soubresauts politiques aussi peuvent avoir un impact sur les affaires. A Monastir, en Tunisie, la coentreprise de maintenance détenue avec la compagnie charter Nouvelair subit les conséquences d'une économie touristique en berne. La compagnie exploite 11 Airbus de la famille A320. « Au moment de la révolution, Nouvelair a connu une baisse d'activité ; elle remonte mais moins d'heures de vol se traduisent par moins de maintenance », explique Jean-Luc Fournel.

Sabena Technics Monastir

Continuer à  
la page 62



En Afrique, Sabena Technics compte une vingtaine de compagnies clientes, pour lesquelles la réparation d'équipements est une activité importante.

SUITE DE LA PAGE 61

emploie 200 personnes, presque toutes embauchées localement. Elles réalisent des visites de type A et C sur les avions de Nouvelair, ainsi que leur suivi technique. En fonction de la disponibilité laissée par les Airbus de Nouvelair, prioritaires, les services de maintenance sont aussi proposés à des compagnies tierces, comme la Lybienne Afriqiyah Airways. « Le centre de Monastir est très compétitif en termes de coûts », assure Jean-Luc Fournel.

Le transporteur à bas tarifs Fastjet, en Tanzanie, est l'un des plus récents clients de Sabena Technics en Afrique. Le contrat comprend notamment la présence de mécaniciens à Dar Es Salam et la fourniture des pièces consommables. Bref, un soutien complet, à l'exception des moteurs.

D'ici à quelques mois, si Fastjet suit son plan de progression, Sabena Technics commencera à former des techniciens locaux. Le Kenya voisin est un vivier potentiel de nouvelles recrues. « Dans ce pays, les gens ayant reçu une formation aéronautique sont relativement nombreux ; il n'y aurait plus qu'à les qualifier sur le type d'avion souhaité », indique Jean-Luc Fournel. Si Fastjet confirme son succès, l'entreprise de maintenance envisage de construire un atelier – pas forcément en Tanzanie – pour des visites allant jusqu'au niveau C.

Autre contrat récent, celui conclu avec Air Kasai, en République Démocratique du Congo, pour un ATR 72. Un avion de la même famille, un ATR 42 équipé pour la calibration des équipements de navigation au sol, est entretenu pour l'agence de navigation Asecna – dont 17 états sont membres. Sabena Technics a aussi des contrats militaires. C'est le cas de ceux signés pour l'entretien d'avions de transport militaire C130 au Cameroun et au Nigéria.

## SUMMARY

# Sabena Technics on the Fast track

*The maintenance specialist continues its expansion in Africa, despite some obstacles. Thierry Dubois reports.*

**Sabena Technics sees a growing demand for its MRO services across Africa – particularly having been selected by new airline FastJet**

The French company, an MRO subsidiary of the TAT Group, is positioning engineers in Tanzania for the FastJet contract and, with the exception of engine maintenance, will provide full support to the start-up.

If FastJet succeeds with its current growth plans, Sabena will begin training local technicians.

"Neighbouring Kenya is a potential pool of new recruits," said assistant general manager Jean-Luc Fournel.

Sabena has plans to build a workshop – not necessarily in Tanzania – for FastJet's operations up to C check.

"The potential for the continent is clear to see," said Fournel. "We get new contracts every year." Sabena Technics already has about 20 major customers and an MRO facility in Tunisia.

Africa currently provides a relatively modest 6% of the company's total sales but, according to Fournel, "this share is growing".

However, there are challenges to operating on the continent. "Some areas are not safe. Generally, logistical difficulties persist, although air transport infrastructure improves," Fournel said. "There are lengthy

customs clearances; the frequency of flights to Europe remains weak. To overcome these obstacles in moving parts, stocks are higher than they would be in Europe."

Political upheavals can also have an impact on business. In Monastir, Tunisia, the MRO joint venture between Sabena Technics and charter company Nouvelair is suffering the consequences of a decreasing tourist economy.

□□□□

Nouvelair operates 11 Airbus A320 family aircraft. "At the time of the revolution, Nouvelair decreased activity and flight hours, which results in less maintenance," said Fournel.

Sabena Technics Monastir employs 200 people, almost all hired locally. They carry out A and C checks and technical monitoring for Nouvelair.

Depending on availability, remaining maintenance services are also offered to third-party companies, such as Libyan Afriqiyah Airways. "Monastir is very competitive in terms of cost," Fournel said.

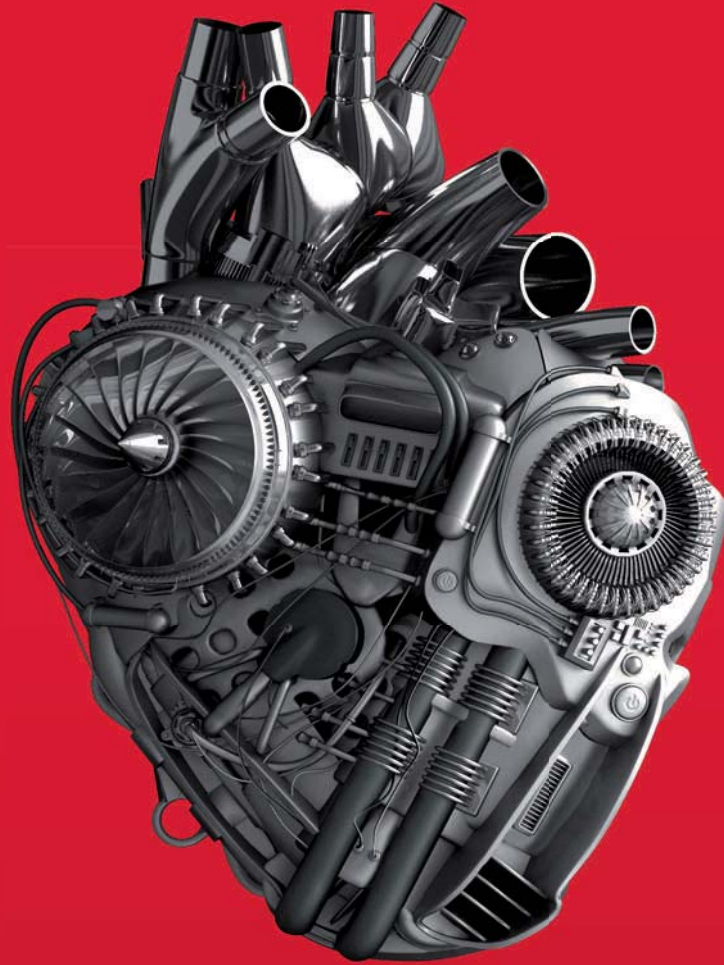
Other recent contracts include an agreement with Air Kasai, in the Democratic Republic of the Congo, to work on ATR aircraft.

Sabena Technics also has military contracts. These include the maintenance of C130 military transport aircraft in Cameroon and Nigeria.

"The potential for the continent is clear to see. We get new contracts every year."  
Jean-Luc Fournel



**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 and Business Development Direction  
Madrid-Barajas Airport. Z.I. La Muñeza. Motores Building, 28042 Madrid.  
Spain tel: + 34 91 587 51 32/ Fax: +34 587 58 84  
maintenance@iberia.es / www.iberiamaintenance.com  
**British Airways Maintenance:** baeng@ba.com / www.ba-mro.com

**BRITISH AIRWAYS**  
**ENGINEERING**

**MAINTENANCE**  
**IBERIA**

Members of IAG

*Cloud computing for the aircraft industry may sound like a terrible pun but, in reality, many companies are latching on to the benefits it can bring. Ramco, which was at the MRO Africa show in Addis Ababa, is keen to promote this new approach, as Steve Nichols found out.*

# Why MROs will get a lift from the cloud

**T**outed to be the next generation of computing applications, cloud computing aims to create a smarter work environment.

Businesses have become spoilt for choice when it comes to choosing the solution that will best suit them. But, with hundreds of MRO software providers in the market today, it can be a difficult choice to find the right one.

Perhaps 'going to the cloud' is the way forward.

But, what exactly is cloud computing and how can it benefit an aviation business?

Cloud computing in simple terms is a virtual workplace where a single installation of the MRO software can be used by multiple customers and be accessed through the internet. You just use the software you need, as a service, which is installed in an entirely different location to where you are based.

With multiple internal and external connections, and thousands of queries being handled every second, a robust computing system is required to meet the challenges in managing the infrastructure.

But with cloud computing, all these are taken care of by the solution provider, freeing businesses to focus on their core competencies. And Ramco is convinced that the MRO industry can benefit greatly from the cloud approach.

"With more than three million parts on an aircraft, tracking and managing each stage of maintenance work would become unmanageable without a comprehensive MRO computerised solution," said Sam Jacob, vice



**Ramco CEO Virender Aggarwal says a gradual introduction to the cloud pays dividends.**

president – aviation product development at Ramco Systems.

"Applications for the aviation industry are expected to simplify the complexities of managing the MRO business but traditional IT systems installed on company premises make the deployment and management of IT systems complex."

Jacob said that a cloud-based MRO solution provides the real possibility of expanding the availability of sophisticated IT systems to smaller organisations – operators with fleet sizes of less than 10 aircraft and small MRO centres can

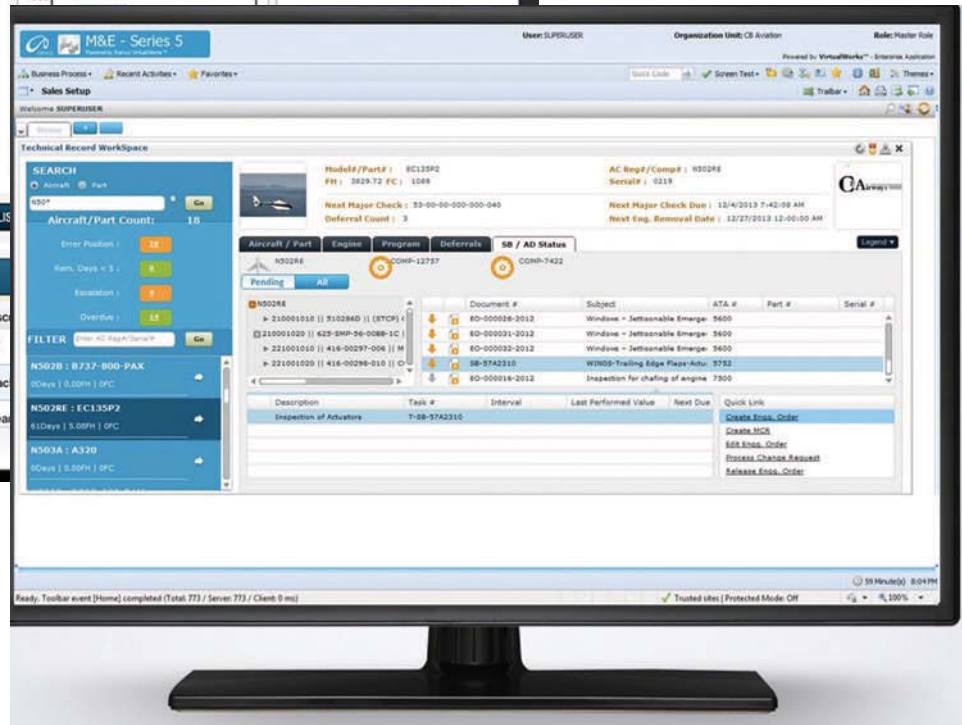
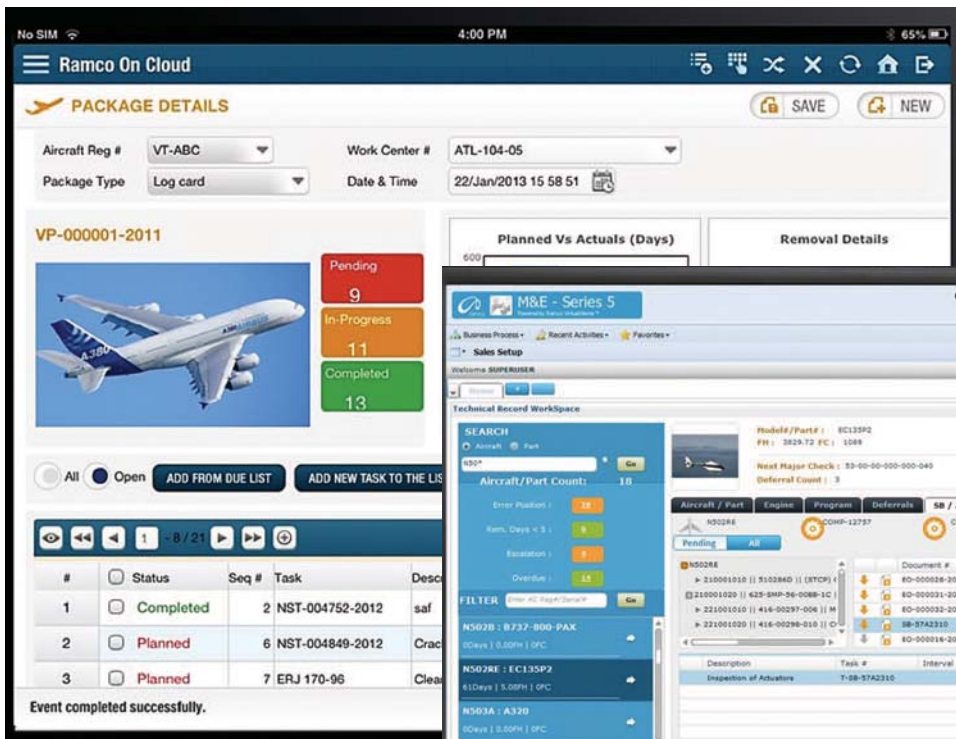
benefit from the operational efficiencies offered by specialised integrated solutions.

Ramco has more than 1,000 customers in 35 countries, including Emirates, Air India and Eurocopter, and has pioneered the use of cloud-based computing in the aviation industry. So why has the MRO space, which has largely relied on paper-based processes before, suddenly become interested?

Jacob said modern fixed-wing and rotor aircraft have become progressively more complex, requiring more precise and sophisticated maintenance programmes and practices to be applied. The increased use of software-based control systems on board the aircraft, plus digitized manuals and information collection models (such as usage data, malfunctioning parts and parameters being downloaded from on-board systems), makes the deployment of an enterprise information backbone a 'must have' for managing business operations.

"The competitive nature of the airline industry has also forced the cost of doing business to rock-bottom levels," he added. "With maintenance expenses being the second largest cost contributor after fuel expenses, organisations are aggressively re-positioning their maintenance functions. As well as addressing regulatory compliance and aircraft reliability, it is also about improving business efficiencies and delivering competitive advantage."

Jacob said smaller operators and maintenance centres need to build the same operational efficiencies, best practice adoption and decision-making enablers as their big brothers if they are to



retain their edge and stay relevant in the market place.

So how does cloud computing help with this?

Simple – it allows companies to pick and choose what their business needs from available MRO software packages. MRO applications in the cloud are designed for ‘on-demand’ usage and companies can decide what modules they want to start with and adopt other functionalities later as they wish.

For example, MRO companies can start with just materials management and maintenance programs along with planning and execution, and later expand to other functionality such as engineering, finance and human capital management solutions (HCM).

Ramco said an operator with a multiple fleet could introduce one model of cloud-based MRO software and move on to other models progressively as needs develop. Since the MRO software is offered on subscription basis, it only pays for the fleet that’s currently operational, making IT expenses completely aligned to the business.

But is cloud computing a proverbial silver bullet for MRO operators?

“A switch-over to a cloud-based application in itself is unlikely to deliver the operational benefits that operators and MRO organisations seek,” said Jacob.

“The cloud-delivered software solution still needs to address fundamental challenges that organisations face in deploying enterprise applications. In order for enterprise systems to be effective, they need to get their personnel on board.”

Ramco adds that application simplicity and relevancy are the two most important parameters for successful system adoption in the field and on the shop floor.

“Applications also need to leverage the high level of penetration of mobile devices among users. Their availability on tablets and smart phones allows the application to be taken to the place of work. This means that a high level of simplicity, plus intuitive touch-screen models, can significantly increase the level of system adoption and appeal to all users, such as pilots, field mechanics and field warehouse personnel,” said Jacob.

But does this mean a one-size-fits-all approach to functionality?

No, said Jacob. The secret is to tailor and extend the functionality of the cloud-based MRO software to which the organisation is subscribing. Ramco believes it is probably the only cloud software vendor that provides extension development kits (EDKs) that help customers extend the capabilities of the standard cloud product to meet their unique needs.

“With a cloud application, aviation MRO companies get the freedom to use only those features, functionalities and capabilities that are currently relevant for their business,” Jacob said.

“For example, an organisation working in the field of continuing airworthiness management, and focusing on engineering and maintenance planning services, may eventually grow into a full-fledged MRO. At that point, it could start subscribing to the end-to-end contract management, execution and billing functionality of a cloud-based system.”

Ramco said that, over the years, organisations have become so dependent on IT that it is not uncommon to see systems becoming a constraint in adapting to change and scaling up for growth. But, being cloud-based, relieves the company of the lead-time to add IT capacity and upgrades – with the cloud, they can scale up capacity and usage ‘on-demand’ with no waiting time.

Another benefit is that customers don’t have to play catch-up with technology any more. Cloud-based application vendors bring the latest upgrades to them automatically, without disrupting the availability of the system. Cloud products are updated frequently and customers have access to these without paying anything extra.

Priority also goes into making sure that the data transmitted is secure, through the use of encryption and secure data sockets, to prevent any form of data interception.

*Aviahelp, a supplier of spare parts for Russian helicopters, is starting to focus on Africa but it faces challenges in the region.*

**Marcelle Nethersole** reports.

# Aviahelp spending more spare time in Africa...

**F**ormed in 1997, Aviahelp was established to act as a provider of spare parts and service solutions for all modifications of Russian helicopters.

Supplying spare parts for the Russian-built MI-17, MI-8, MI-171 and MI-172 helicopters, and aircraft like the IL-76, the company's stock-list includes helicopter components and units for hydraulics, electromechanical, pneumatic systems, standard spare parts, and instruments.

Its head office is in Moscow and it also has a small office in Sharjah in the UAE.

"We have almost 16 years' experience in aircraft and helicopter spare parts supply, and strong business contacts with helicopter original equipment manufacturers," said Andrey Ulyashin, regional representative in Sharjah.

"We are a just-in-time business, so we turn things around very quickly and as close to budget as possible."

Africa is one region in which the company would like to do more business – if only it could overcome some serious concerns.

## Fakes are a common problem

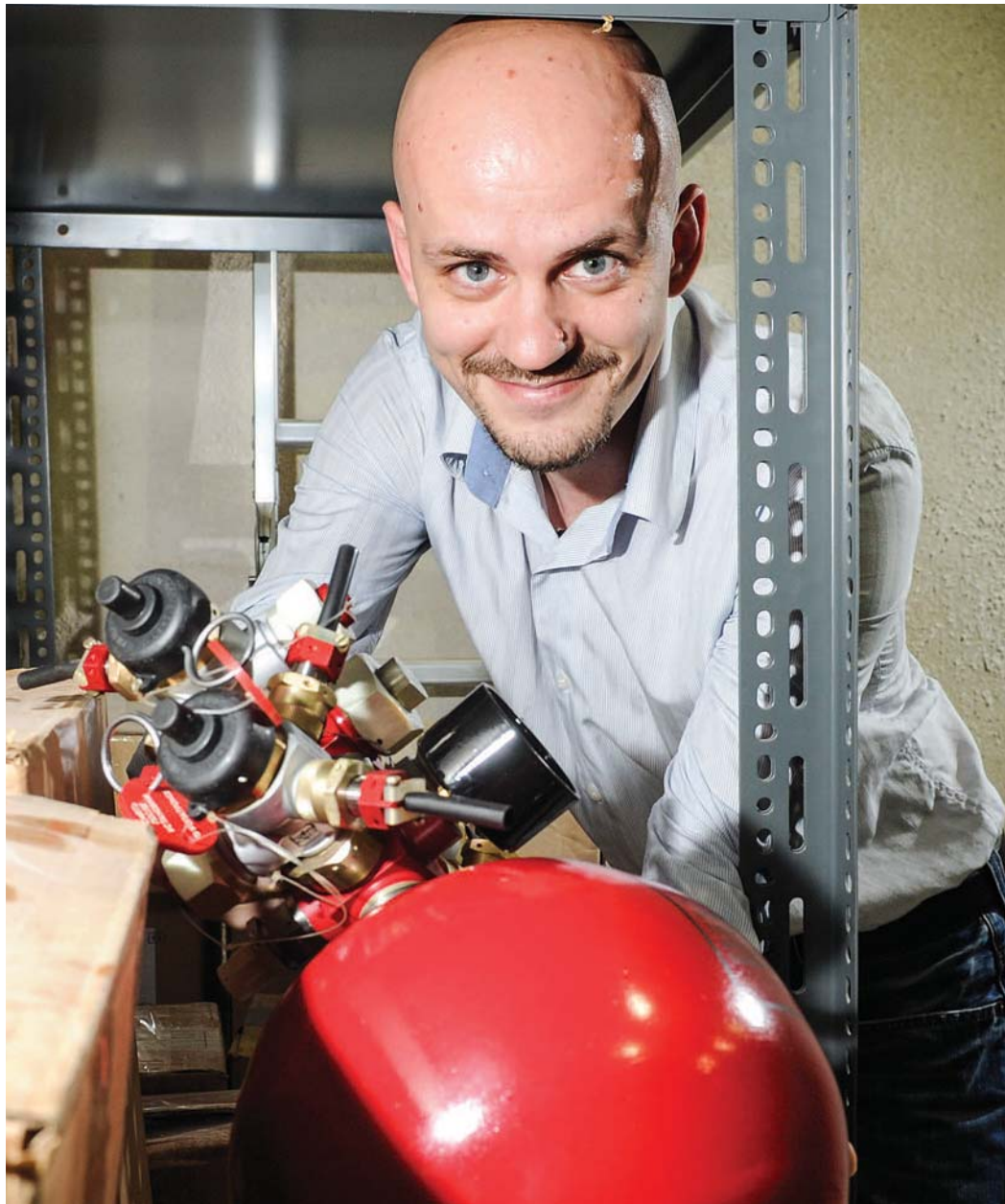
According to Ulyashin, the biggest problem for the company is making sure the parts are authentic – fakes are a common problem for many spare parts providers.

"The prime concern of Aviahelp is to supply authentic spare parts to all our customers," said Ulyashin. "We work closely with the OEMs and have agreements with them. Our OEMs certify every spare part they produce.

"Even with overhaul spare parts we always check them first with the OEM for authenticity. The OEMs provide a delivery time and manufacturing price for the parts, so when it's not available in our stock, we turn to them for help. Authenticity is a primary issue for Russian helicopters.

"A lot of countries, particularly African ones, look for cheap spare parts and don't care about the history of the part – they just care about the price. That just isn't an option for us as safety is paramount. It's as simple as this; if it's ok we sell it, if not, we don't."

While the company doesn't have a facility in



**Andrey Ulyashin - Ready for African growth.**

**“The prime concern of Aviahelp is to supply authentic spare parts to all our customers.”  
Andrey Ulyashin**

Africa, it is on the lookout for operators of Russian helicopters in the region.

“Africa has a lot of countries that have been using Russian helicopters since the 1970s. Particular helicopters were designed for that particular region,” explained Ulyashin. “We don’t have a facility out there at the moment as the infrastructure isn’t developed enough but we hope to search for the operators of Russian helicopters in the region. Most of the Russian helicopters are in Sudan, Egypt, Algeria, Djibouti, and Congo.

“Africa is a closed continent – it’s quite hard communicating due to language barriers, but it is a region we are keeping an eye on.”

#### Sister company

Aviahelp also has a sister company in the US searching for the spare parts to send to Russia.

The company also provides spares for Western-built aircraft and their ground support, the most recent being Airbus and Boeing aircraft.

“We have recently started the supply of spare parts for Boeing and Airbus but Russian airlines are our target. In Russia you can find around 40 airlines operating different types of aircraft,” said Ulyashin.

“We are doing some work on the B737. We have EASA repair station certification but our capability list isn’t big. If we do elements on an aircraft, we do the air-con system and generator parts – so quite small.”

On top of this, the company also does ground support equipment, mainly Russian made. These include GPUs, ground power units, maintenance ladders, towing-bars, and equipment for checking systems.

## SOMMAIRE

# Aviahelp à l’affût d’opportunités en Afrique

*AviaHelp, fournisseur de pièces de rechange pour des hélicoptères russes, souhaite se développer durablement en Afrique.*

Aviahelp, fournisseur de pièces de rechanges, nous explique les raisons d’investir et de se développer en Afrique ainsi que les principaux défis que doit relever le continent.

Fondée en 1997, Aviahelp assure des prestations de services et d’approvisionnement de pièces de rechange pour les hélicoptères en particulier les hélicoptères russes (MI-17, MI-8, MI-171 et MI-172) ou des avions comme l’ILushin-76. Le siège d’Aviahelp est basé à Moscou et l’entreprise possède également un bureau à Sharjah aux Emirats Arabes Unis.

« Nous bénéficions d’une grande expérience dans l’approvisionnement de pièces de rechanges pour avions et hélicoptères ainsi que des relations solides avec des fabricants d’hélicoptères », a déclaré Andrey Ulyashin représentant d’Aviahelp à Sharjah. « Nous savons trouver des solutions rapides pour nos clients tout en respectant au plus près leurs budgets. »

□□□□□

L’Afrique est un continent où Aviahelp souhaite durablement développer ses activités. Selon Andrey Ulyashin, le principal défi est en effet de s’assurer que les pièces soient authentiques et non des copies.

C’est une problématique commune à de nombreux fournisseurs de pièces de rechange.

« Notre principale préoccupation est de fournir des pièces de rechange authentiques à l’ensemble de nos clients », a ajouté Andrey Ulyashin. « Nous avons des accords avec les OEM (Original Equipment Manufacturer) afin de certifier chaque pièce de rechange qu’ils produisent. Même si nous devons investir dans des pièces de rechange d’occasion, nous vérifions systématiquement leur authenticité avec l’OEM. »

L’authenticité est donc une question primordiale. Un grand nombre

de pays particulièrement en Afrique, cherchent des pièces de rechange à meilleur marché pour les hélicoptères russes et ne se préoccupent pas de l’historique de la pièce.

« Ces pratiques ne sont pas acceptables pour Aviahelp, la sécurité est primordiale », tient à préciser Andrey Ulyashin.

Aviahelp ne dispose pas encore de site en Afrique car les infrastructures ne sont pas encore assez développées. La société reste à l’affût d’opérateurs d’hélicoptères russes dans la région pour s’y implanter et se développer.

□□□□□

« Beaucoup de pays en Afrique opèrent des hélicoptères russes depuis les années 1970 », a expliqué Andrey Ulyashin. « La majorité des hélicoptères russes se trouvent au Soudan, en Egypte, en Algérie, à Djibouti et au Congo. L’Afrique est un continent fermé car il est assez difficile de communiquer en raison des barrières linguistiques. »

Aviahelp possède également un partenaire aux États-Unis qui recherche des pièces de rechanges pour les expédier ensuite en Russie. Cette société fournit également des pièces de rechange et un soutien pour des avions occidentaux.

« Nous avons récemment commencé la distribution de pièces de rechange pour des avions de type Boeing et Airbus et les compagnies aériennes russes sont clairement notre cible. Près de 40 compagnies y exploitent différents types d’avions en Russie », a précisé Andrey Ulyashin.

Nous nous focalisons sur le Boeing 737. Nous avons obtenu la certification EASA pour des prestations de réparation mais notre portfolio reste limité. Aviahelp assure également le soutien au sol de ses pièces, fabriquées principalement en Russie.

« Notre principale préoccupation est de fournir des pièces de rechange authentiques à l’ensemble de nos clients. »  
Andrey Ulyashin



Join us in providing a helping hand to the most needy across the globe, to know more visit us at

[www.wfp.org](http://www.wfp.org)



*Demand for Africa's riches –  
both mined and grown –  
continues to stimulate a rush of  
cargo operators to the  
continent, and with them comes  
investment in assets and people.*

**Tom Pleasant reports.**

# FREIGHT EXPECTATIONS

«Les prévisions pour le fret » – Page 72

**A**t the Air Cargo Africa conference in Johannesburg this February, delegates and exhibitors were united in their confidence that growth is sustainable and here for the long term.

Sanjeev Gadhia, CEO of Kenyan cargo carrier Astral Aviation, said what was significant was the growing wealth of Africans themselves.

“The middle-class population is growing more numerous and more sophisticated,” he said. “People who used to go abroad for their studies and stayed abroad are now starting to come back again with credit cards and the latest gadgets; their iPads and Blackberries.

“Only a few years ago I couldn’t buy on Amazon and have it delivered to me; I had to have a friend bring it from London. But now we can buy things on credit cards using mobile phones. It may not be delivered tomorrow, it will be more like five days, but that doesn’t matter to them. The middle class will lead to immense air cargo growth in Africa.”

Lida Mantzavinou, an aerospace and defence consultant at Frost & Sullivan, agreed: “The global cargo market is experiencing a revolution. New trade corridors are emerging linking the markets of Africa, Latin America, the Middle East and Asia, which are growing faster than Western markets. Africa’s emerging middle class, infrastructure developments and increasing foreign direct investments (FDI) will eventually drive cargo traffic growth, which by 2030 is expected to grow by 5.8%.”



**Emirates' Duncan Watson:** “We’ve seen really good growth in and out of both east and west Africa.”

She added that, by 2030, Africa’s fleet would double to 1,210 aircraft, 60% being additions to existing fleets.

“The major legacy airlines are growing domestically through regional partnerships and internationally through foreign partnerships,” she explained. “Some prominent examples of this include South African Airlines strengthening its partnership with Emirates and Qantas to grow in the Middle East and Asia. Ethiopian Airlines partnered with the Togolese carrier Asky to better serve east Africa and joined the Star Alliance in order to benefit from strengthened partnerships with the alliance’s Asian members.”

Ethiopian Airlines’ recent growth parallels the continent’s own. Daniel Mebrate, associate vice president, Ethiopian Cargo, said: “2012 was a good year. We started operations with two new 777-200LR freighters – the first in Africa – out of

six on order. We are now working to establish a cargo hub in Lomé (Togo) for the west Africa market to add to our existing regional hubs in Dubai, Hong Kong, Liège and Mumbai. We are also building a facility, which is slated to be in terms of capacity, the biggest perishable warehouse in the world.”

Kenya Airways, the continent’s other major success story, has also been responding to the tremendous amount of perishable cargo coming out of the country, largely heading to Europe’s hungry supermarkets.

Last year, it and KLM Royal Dutch Airlines, jointly launched the first direct freighter service between mainland China and Africa. The Boeing 747-400F – dubbed ‘safari connection’ – flies between Nairobi and Guangdong as part of the Amsterdam-Guangzhou-Nairobi-Lagos-Nairobi-Amsterdam circuit, carrying 120 tonnes; more than five times the belly capacity of the Boeing 777.

The airline plans to introduce 12 freighters into its growing fleet over the next 10 years, some wholly owned and others leased.

Non-African carriers are also flocking to the continent.

“We’ve seen really good growth in and out of both east and west Africa,” said Duncan Watson, vice president for cargo commercial operations – Middle East, Africa and Pakistan at Emirates SkyCargo.

“Last year we launched our Zambia-Zimbabwe route. We started using an A330 but upgraded to



a 777, from five flights a week to daily, from October. We also delinked the flight to Entebbe and Addis. That's given some great additional lift to both markets. We've also added freighter connections into Tripoli, Cairo, Djibouti, Khartoum and Lusaka. Overall we're seeing very strong demand from all points we operate from and we'll try to expand destinations and connections as we go into 2013. My expectations for Africa in 2013 are very positive."

Lufthansa Cargo is also seeing solid growth, especially out of Egypt, Ethiopia and Kenya, said Hermann Zunker, regional director Africa. That growth is attracting others. "In the past year we have seen a number of carriers expanding their network into Africa, often in line with fleet expansion and also due to softening of demand from Asia and saturation of other markets," he said.

The integrators are also taking note. Thomas Nieszner, CEO Europe, Middle East and Africa of DHL Global Forwarding, said the company is planning "unmatched access of capacity" to and from Africa using its in-house carrier, StarBroker.

DHL is also working to develop airfreight intra-Africa primarily for its oil and gas, and mining customers in west, central and southern Africa.



**Claude Picciotto:** "They were looking at the IATA CASS figures and thought Africa was the new Eldorado."

However, such an emerging market has its problems. Claude Picciotto, air freight procurement director for SDV Logistique International, which has a long airfreight history in Africa, said many are attracted to the continent but few have what it takes to succeed there. "Several airlines have started flying to Africa only to stop after six months," he pointed out. "They are interested in Africa because the yields are higher and with higher yields come bigger margins. They were looking at the IATA CASS figures and thought Africa was the new Eldorado."

Of those new and existing carriers to the

continent, Picciotto only rates a few as having the knowledge to succeed there.

"Cargolux, Air France, Avient and Allied definitely understand the market and will be reactive if it booms in one country or region to quickly place additional capacity," he said.

So why do so many fail?

Local knowledge is apparently essential as the continent's largest problems are political instability, poor infrastructure and handling facilities, and excessive regulations and bureaucracy; a complaint widely voiced at the conference.

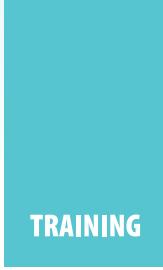
Any of these can lead to disruptions to smooth operations and with air cargo's small margins, any disruption can easily lead a venture from profit to loss – witness the many cancellations of services throughout north Africa following the Arab Spring.

As well as these problems, Nieszner added the need to improve overall customs regulations and cargo-handling security, while Mebrate added traffic rights. "One has to go through a long bureaucratic process before securing fifth and seventh traffic freedom rights," he said. "As we develop the air cargo industry on the continent; countries need to ease the stringent policies which are crucial to build a conducive operating environment for airlines."

Continued  
on Page 70



International Transportation Safety and Security Solutions



With GHS offices in North America and Africa, our network of professionals spans the globe including areas such as Europe, Asia Pacific, and the Middle East.

Comprised of highly experienced airline management professionals, GHS is dedicated to providing a culturally diverse client base with the very latest industry leading business solutions in all aspects of Operations, Safety, Security, Quality and Risk Management.

We pride ourselves on working closely with our valued clients to achieve their objectives, exceed their expectations, and make a difference to the aviation industry globally.

SECURITY MANAGEMENT SYSTEMS

QUALITY MANAGEMENT SYSTEMS

CRM HUMAN FACTORS SECURITY THREAT ASSESSMENTS

FOQA ERP SENIOR MANAGEMENT ADVISORY

PREDICTIVE SAFETY INDICATORS (PSI®) PROGRAM CRISIS COMMUNICATIONS

QMS EMERGENCY RESPONSE

MANUAL WRITING

IS-BAO GAP ANALYSIS

RISK ASSESSMENT

IOSA ISAGO SAFETY MANAGEMENT SYSTEMS (SMS)



Tel +1 703.883.0105 www.GHS.aero



## CONTINUED FROM PAGE 69

Watson added: "There has been an improvement [in professionalism and infrastructure development] in a number of the markets but there needs to be continual improvement over the next two or three years to maintain the kind of capacity that is being brought into the markets. Places such as Kenya, Ethiopia and Uganda need to continue to develop their handling capability in line with market growth."

Barry Nassberg, chief operating officer for cargo handler Worldwide Flight Services (WFS, trading on the continent as Africa Flight Services), is confident that improving standards of service in Africa is achievable.

"There is a long way to go but I'm more convinced than ever that it's not impossible. There's a huge demand for cargo handling to the standard we're used to in Europe or North America. And you don't have to be a brilliant innovator. If you can just bring what is here up to today's current standards, that would be a big step forward. We feel we can really contribute with that. There's plenty to keep us busy."

**Number one hurdle**

Challenges do remain though. Joanna Botcherby, an analyst at OAG, said airport infrastructure was the number one hurdle the industry must jump. "The goal [in Africa] is to have a single sky operation but before this can be achieved, individual aviation authorities need to develop their own infrastructure at home. They must progress efforts to improve infrastructure at airports if they are to cope with growing traffic. Data indicates an average increase in capacity of 5%, yet facilities remained the same.

"The smaller airports in Africa are still struggling with infrastructure challenges and general poor facilities. Most states still lack the ability to accommodate transit between airports and they are all yet to fully establish services incorporating reliable information technology platforms to process cargo."

Astral's Gadhia said the largest challenge is lack of market access due to African governments being too protective. "They think they will lose out if they relax regulations but actually they're harming their own people. A lot of the services airports offer airlines only come from one monopolistic service provider, not the three and five that you get in some of the more developed markets, such South Africa or Kenya. That also



**Barry Nassberg:** "Africa has 51 countries, each with very different histories, cultures and unique problems to overcome."

means they can and do charge very high rates, which we have to pay. Ultimately that affects the cost of the commodity, so it is the consumer who ends up paying more."

Nassberg agreed: "Yes, people and infrastructure are important but before you talk about them you have to be able to enter the market and current regulations make that very difficult.

"The thing you have to remember is that there is no 'Africa'. You can refer to Europe and know there is a fairly common standard across all of its countries, but Africa has 51 countries, each with very different histories, cultures and unique problems to overcome – in particular their own regulation issues, such as foreign companies' ability to invest, security obstacles and access to airports.

**Seeing the cracks**

"There is no one easy solution. You have to tackle it one country at a time, but we're seeing the cracks. Globalisation has had its impact. African governments are starting to recognise they need foreign investment and that they shouldn't treat their airports as strategic national assets."

Fortunately, Africans themselves are starting to widen those cracks. Their growing wealth is in part due to air cargo's migration from North America and Europe to the Middle East and Asia, both of which need Africa's resources. With that wealth, Africans are now more willing to invest in other African companies and countries.

"We're seeing a shift in economic power from West to East," explained Zemedeneh Negatu, a managing partner of Ernst & Young based in Ethiopia. "That's a permanent trend. In 2010, North America's share of the global gross domestic product was 22%. The forecast is that by 2050 it will be 11%, whereas Africa will go from 4% to 12%. Last year investment in Africa

increased 27% despite the global economic uncertainties, especially in the Eurozone. Those are solid numbers.

"Now, what's interesting is that Africans themselves are more confident about their continent, unlike in the bad old days of the 1980s and 1990s. Intra-Africa trade has increased 10-fold in the last 10 years and intra-Africa investment – South African companies going north, Kenyan companies going east, Nigerian companies investing in west Africa – as well as FDI, increased substantially in the same period. That's a solid measure of the sentiment we see in the marketplace."

**Remain sceptical**

There are still many, even at the conference, who remain sceptical that cargo's massive growth in Africa will continue, none of whom were willing to go on record. Others are more optimistic though.

"No, I don't think Africa will be a flash in the pan," said Ram Menen, senior divisional vice president at Emirates SkyCargo. "In the past we've seen South Africa and Kenya being the growth areas but now west and central Africa are catching up. They're leap-frogging technology and their growth will be a lot more sustainable.

"But will the capacity that is currently being deployed in Africa remain there? I doubt that very much. A certain amount of capacity will remain, in places like South Africa, Kenya and Lagos, but elsewhere capacity will reduce."

Gadhia had the final word. "It's encouraging that there is a lot of confidence in the market," he said. "There is not as much competition from road and rail that you have elsewhere. In Africa, air cargo is definitely here to stay."



**Ram Menen:** "No, I don't think Africa will be a flash in the pan."

**BE POWERED BY  
MAXIMUS AIR**

PO Box 35367, Abu Dhabi, UAE  
T +971 2 447 4900 • F +971 2 447 4901  
info@maximus.aero • www.maximus.aero

MAXIMUS AIR  
ماكسيمس للطيران

## SOMMAIRE

# Des prévisions optimistes pour le fret

*La création de richesses en Afrique continue d'encourager la venue d'opérateurs de fret sur le continent, synonyme d'investissement tant pour les infrastructures que pour le personnel. Une enquête de Tom Pleasant.*

La richesse de l'Afrique continue d'attirer les opérateurs de fret aérien, et avec eux les investissements humains et techniques. Les analyses établies entendues en février dernier pendant la conférence Air Cargo Africa, qui s'est tenue à Johannesburg (Afrique du Sud), ont été quasiment quasi unanimes : la croissance de cette activité restera soutenue dans les années à venir. Une situation accentuée par le manque d'infrastructures à l'échelle du continent, qui rend difficile une concurrence par la route ou par le trainrail.

Sanjeev Gadhia, PDG d'Astral Aviation, compagnie cargo kenyane, offre une explication claire concrète à cette situation : "La classe moyenne africaine prend une importance grandissante et cela engendre avec elle s'affirmant des envies de consommation de plus en plus sophistiquées. Nous pouvons nous faire livrer les biens que nous achetons sur internet, alors qu'auparavant il fallait attendre que des amis nous les ramènent dans leurs valises. C'est un facteur important puissant du développement du fret aérien en Afrique".

Une analyse que partage Lida Mantzavinou, consultante pour Frost&Sullivan : "De nouvelles routes commerciales émergent, mettant en relation des marchés dotés d'une solide croissance.



L'existence d'une classe moyenne africaine, le développement des infrastructures et des investissements étrangers va alimenter une croissance du trafic cargo des échanges aériens qui pourrait atteindre 5,8% d'ici 2030". A ce jourcette date, la flotte sur le continent doublera pour atteindre 1210 appareils. Les compagnies aériennes traditionnelles connaissent une croissance à la fois nationale et internationale par le biais de partenariats commerciaux. Un exemple emblématique est donné par South African Airways qui renforce ses liens avec Emirates et Qantas pour se développer au Moyen Orient et en Asie. Autre exemple, Ethiopian Airlines qui a rejoint Star Alliance pour bénéficier de la coopération avec les compagnies asiatiques.

La croissance récente d'Ethiopian est d'ailleurs emblématique de celle de tout un continent. "2012 a été une bonne année" reconnaît Danie I Mebrate, vice président d'Ethiopian Cargo. "Nous avons commencé à utiliser deux Boeing 777-200LR cargo, sur les six commandés. Ce sont les premiers sur le continent et ils vont nous permettre de développer notre politique de hubs".

Kenya Airways est l'autre réussite du continent. L'an dernier, la compagnie s'est alliée à KLM pour lancer la première liaison cargo directe entre la Chine et l'Afrique. Surnommé "Safari Connection", le Boeing 747-400F effectue un circuit complet entre Amsterdam, Guangzhou, Nairobi et Lagos puis retour sur Nairobi et Amsterdam, avec une capacité de 120 tonnes en soute. Plus de cinq fois la capacité d'un Boeing 777

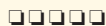


Sanjeev Gadhia : "La classe moyenne africaine prend une importance grandissante et avec elle s'affirmant des envies de consommation de plus en plus sophistiquées."

passagers ! La compagnie aérienne prévoit la mise en service de 12 avions cargo dans les dix ans à venir.

Les compagnies aériennes non africaines sont également nombreuses à profiter de la croissance. "Nous avons connu une croissance solide aussi bien en Afrique de l'est que de l'ouest" note Duncan Watson, vice président directeur régional fret pour la région chez d'Emirates Sky Cargo. Je suis très optimiste pour l'année qui débute".

Un point de vue que partage Hermann Zunker, directeur régional de Lufthansa Cargo : "au cours des années passées, nous avons vu plusieurs transporteurs étendre leur réseau en Afrique, parfois pour compenser la saturation des autres marchés".



Les intégrateurs ont également pris bonne note de ce mouvement. Thomas Niesznier, directeur général Europe, Moyen Orient et Afrique de DHL Global Forwarding, explique que sa société prépare un solide développement dans la région, porté notamment par les besoins de l'industrie des matières premières.

Un tel marché émergent pose tout de même des problèmes. Selon Claude Picciotto, directeur des activités aériennes de SDV Logistique International, "beaucoup d'opérateurs sont attirés par le continent mais peu ont disposent des outils pour y réussir. Plusieurs compagnies aériennes ont débuté leurs opérations ici pour les arrêter précipitamment six mois plus tard. Cargolux, Air France, Avient et Allied font partie de celles qui comprennent réellement le marché et sont assez réactives pour en profiter".

L'échec de plusieurs opérateurs autres est souvent lié à une méconnaissance des conditions locales. Instabilité politique, manque d'infrastructure, bureaucratie excessive sont autant de facteurs pouvant facilement gripper les machineries les mieux

huilées, dans un secteur où les marges sont faibles. Selon Thomas Niesznier, les règlements de douane et la sécurisation des opérations logistiques posent également un problème. Même analyse selon chez Daniel Mebrate pour qui "les règles administratives doivent être assouplies pour faciliter les échanges".

Barry Nassberg, directeur de l'exploitation pour Worldwide Flight Services est confiant sur la possibilité d'améliorer le niveau de service en Afrique : "le chemin à parcourir reste long, mais il n'y a rien d'impossible". Les défis sont pourtant nombreux. Pour Joanna Botcherby, analyste à OAG, le premier problème numéro un est celui des infrastructures aéroportuaires qui n'évoluent pas au même rythme que le trafic.

Pour Astral Gadhia, le principal défi provient du protectionnisme exagéré des gouvernements africains : "ils pensent qu'ils seront perdants s'ils assouplissent les prélèvements et les taxes. De nombreux services aéroportuaires sont en outre tenus par des sociétés en situation de monopole, ce qui se traduit par des tarifs très élevés qui sont répercutés sur le consommateur final".



"C'est très vrai, mais la question se pose déjà en amont de pouvoir prendre pied avant de s'implanter sur le marché, ce qui n'est pas toujours aisée" note Barry Nassberg. "Les 51 pays d'Afrique ont tous des règles de fonctionnement différentes. Sous l'effet de la mondialisation, les gouvernements locaux prennent toutefois conscience de l'importance des investissements étrangers et de l'ouverture nécessaire des aéroports".

A cela s'ajoute un basculement des opérations cargo de l'Amérique du Nord et l'Europe vers le Moyen Orient et l'Asie, deux régions du monde intéressées par les ressources naturelles du continent Noir.

"Nous assistons à un passage de témoin de l'ouest vers l'est" explique Zemedeneh Negatu, un partenaire d'Ernst&Young basé en Ethiopie. "En 2010, la part des Etats-Unis dans le PIB mondial était de 22%. En 2050, elle pourrait avoir diminué de moitié. Dans le même temps, la part de l'Afrique pourrait passer de 4 à 12%".

L'an dernier, l'investissement en Afrique a augmenté de 27% malgré une situation économique mondiale difficile. Les Africains eux-mêmes ont confiance dans leur avenir : les échanges à l'intérieur du continent ont été multipliés par dix dans la dernière décennie".

Pourrait il s'agir d'un feu de paille ? "Je ne le crois pas" note Ram Menen, vice président directeur d'Emirates Sky Cargo. L'Afrique centrale et l'Afrique de l'Ouest rattrapent l'Afrique du Sud et le Kenya qui ont fait figure de locomotives par le passé".

De nombreux participants à la conférence de Johannesburg, qui n'ont toutefois pas voulu être cités, restent toutefois sceptiques sur la poursuite de la croissance !

# Experience the Dawn of a New Era in Aviation Cargo Services

## NAHCO AVIANCE IMPORT WAREHOUSE



Our recently commissioned warehouse, the largest in the Sub-Saharan Africa, is designed to handle up to 230,000 tonnes of cargo with **cold room, freezers, hazardous/dangerous goods facilities** and equipped with **bomb and explosive detectors** as well as other highly automated facilities.

This is another attestation that nahco aviance is poised to be the leading provider in our markets in Africa.

We invite **Importers/Exporters, Pharmaceutical companies, Shopping malls, Farms, Banks and Hotels** to take advantage of these state-of-the-art facilities.

*Indeed, no one handles aviation like we do.*

*For enquiries, please contact:*

*Cargo Services Business Manager on +234 (1) 7360674, +234 805 669 9148, k.ikhara@nahcoaviance.com*

*Customer Relationship Manager (Cargo) on +234 805 173 4744, a.oyebade@nahcoaviance.com*



**NIGERIAN AVIATION  
HANDLING COMPANY PLC**

**HEAD OFFICE:**

nahco aviance House, Murtala Muhammed Airport, P.M.B 013, Ikeja, Lagos.

Tel: +234 (1) 7404776-80, Email: info@nahcoaviance.com, Website: www.nahcoaviance.com



**STATIONS: LAGOS | ABUJA | ASABA | KADUNA | KANO | PORT HARCOURT | UYO**

*La formation du personnel navigant (commercial et technique), des techniciens et des ingénieurs est devenue un enjeu stratégique pour les compagnies aériennes africaines, en particulier celles de l'océan Indien.*

*Une enquête de Vincent Chappard.*

# Une formation sur mesure et faite maison

«Catching the Local Train» – Page 76

**F**ormer son personnel navigant commercial (PNC), son personnel navigant technique (PNT), ses techniciens ou ingénieurs représente un enjeu stratégique pour les compagnies aériennes africaines, et en particulier dans l'océan Indien. Outre l'aspect réglementaire, plusieurs compagnies aériennes de la région choisissent d'assurer de façon autonome leurs formations en interne pour leurs personnels locaux.

Air Mauritius, Air Austral ou Air Madagascar mènent de nombreux programmes de formation en interne pour leurs PNC et PNT, techniciens ou encore leurs ingénieurs. Ces derniers sont recrutés en grande majorité dans le pays d'origine de la compagnie. Air Seychelles, a quant à elle, opté pour une toute autre stratégie. Elle bénéficie d'un fort partenariat depuis janvier 2012 avec Etihad qui détient 40% de son capital. L'ensemble des formations de la compagnie seychelloise est assuré à Abu Dhabi par Etihad.

Ces formations en interne concernent non seulement les nouvelles recrues mais également le maintien et le perfectionnement des compétences du personnel. Le programme de formation a été validé par l'agence européenne de la sécurité aérienne.

« Une compagnie aérienne comme Air Mauritius, qui emploie 3000 salariés, ne peut pas être pérenne sans une stratégie et une politique de formation ambitieuse pour l'ensemble de son personnel » a déclaré Shashi Puddoo, directeur des ressources humaines et de l'organisation chez Air Mauritius.

Air Mauritius dispose d'un

Continuer à  
la page 76



Laurent Duhayer et Cécile Roulof devant le centre de formation d'Air Austral, à La Réunion.



SUITE DE LA PAGE 75

effectif d'environ 170 PNT, plus de 400 PNC et de 40 formateurs au sein de son centre de formation.

« Nous assurons un volume conséquent de formation chaque année pour nos salariés avec nos propres instructeurs qualifiés » a souligné, de son côté, Jean-Bernard Sadien, responsable des ressources humaines et de la formation d'Air Mauritius. « Nous dispensons également des formations liées à nos activités cargo et de manutention ainsi qu'à nos employés dédiés aux services à la clientèle ».

Air Mauritius assure ainsi l'ensemble des formations au sol en interne pour le PNC que ce soit le CRM (Crew Resource Management) ou l'EPT (Emergency Procedures Training). Air Mauritius fait appel à des formateurs, notamment des Instructeurs de l'IATA, sur place quand le volume de personnel pour des formations spécifiques est conséquent.

La compagnie Air Austral a ouvert son propre centre de formation interne en 2008 car son volume de formation a connu une augmentation considérable.

« L'ouverture du centre de formation d'Air Austral à la Réunion était devenue une réelle nécessité tant sur le plan financier que de l'organisation de nos activités » a déclaré Laurent Duhayer, directeur du personnel navigant et commercial d'Air Austral, basé à La Réunion.

« Nous ne pouvions plus arrêter nos avions pour nos besoins de formation. Notre centre de formation nous a permis d'améliorer la qualité de l'enseignement » a-t-il ajouté.

#### Les PNT toujours très convoités

Air Austral a connu une croissance continue durant les dernières années et le nombre de PNC et de PNT a fortement augmenté.

« Air Austral compte aujourd'hui plus de 360 PNC et plus de 100 PNT. Ces effectifs ont été en effet multipliés par douze depuis les 10 dernières années » a précisé Laurent Duhayer.

Le développement des compétences est donc vital pour Air Austral, un véritable gage d'indépendance. Selon Laurent Duhayer ce centre de formation est également très valorisant voire une fierté pour l'ensemble de nos salariés.

Pour mener des formations plus spécifiques aux métiers de l'aérien, Air Mauritius et Air Austral, tissent des partenariats avec des avionneurs comme Airbus, Boeing et ATR ou d'autres organismes de formation qu'ils soient en Europe (Paris et Londres), en Afrique du Sud ou en Asie.

La formation et le suivi des PNT restent un maillon indispensable pour le fonctionnement d'une compagnie aérienne.

Air Mauritius assure le recrutement des pilotes mauriciens et l'ensemble de la formation au sol. Ces derniers doivent piloter, en exclusivité pendant 4 ans pour la compagnie (concept du "training bond"). Pour les formations pointues comme l'entraînement sur les simulateurs, la compagnie s'appuie sur les avionneurs.

## SUMMARY

# Catching the Local Train

*Training of commercial aircrew, technical crews, technicians and engineers has become a strategic issue for African airlines, particularly those based in the Indian Ocean. Vincent Chappard reports.*

**The increase in air traffic and economic growth in Africa and the Indian Ocean is pushing airlines to redouble their efforts in terms of local recruitment and skills development.**

**Several airlines in the region are now choosing to independently provide in-house training for their local staff.**

**Air Mauritius, Air Austral and Air Madagascar all conduct training programmes for their local personnel, while Air Seychelles, which enjoys a strong partnership with Etihad, outsources its training to Abu Dhabi.**

**The in-house training includes not only new recruits, but also the maintenance and development of existing staff. The European Aviation Safety Agency (EASA) validates the programmes.**

**"An airline such as Air Mauritius, which employs 3,000 people, is not sustainable without a strategy and an ambitious training policy for its entire staff," said Shashi Puddoo, the airline's director of human resources.**

**Air Mauritius provides in-house training for all its operations – everything from cargo handling to customer service. It also uses IATA instructors on site when necessary.**

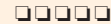
**Air Austral, meanwhile, opened its own training centre in 2008 at its HQ on Réunion, a French island with a population of about 800,000 located in the Indian Ocean, east of Madagascar.**

**The carrier has grown steadily in recent years and the number of aircrew and technical staff has risen sharply. "The training centre became a real need, both financial and for the organisation of our activities," explained Laurent Duhayer, director of**

**commercial aircrew. "We could not stop our aircraft for our training needs. The centre has allowed us to improve the quality of education," he added.**

**According to Duhayer, the centre is a cause of pride for all employees and a real guarantee of continued independence for the company.**

**Both Air Mauritius and Air Austral use training partnerships with manufacturers such as Airbus, Boeing and ATR and, for more specific training, they send personnel to places like Paris, London, South Africa or Asia.**



**Air Mauritius recruits local pilots and provides all their basic training. They must operate exclusively for four years for the company – the concept of a 'training bond'.**

**One of the problems is to retain staff and attract more experienced personnel. The strong growth in air traffic, particularly in the Middle East, Asia and Africa, often causes imbalances between supply and demand.**

**Major carriers can more easily compete to attract the best professionals, often with attractive salaries. However, the smaller carriers believe that airline reputation, country lifestyle and environment and the chance for career progression, also play a significant role.**

**As Air Austral's Cécile Roulof pointed out, the airline's young employees always have the chance to progress. They begin to practice on ATR propeller aircraft, and then develop on Boeing 737s before making the jump to the long-haul Boeing 777.**

Les compagnies aériennes cherchent à intégrer de plus en plus de PNT locaux. Il s'agit aussi de trouver par la suite le meilleur équilibre entre de jeunes pilotes ayant peu d'heures de vol et des pilotes confirmé évoluant ou souhaitant évoluer au sein de la compagnie.

Une des problématiques est de fidéliser les PNT et d'attirer les plus expérimentés. La forte croissance du trafic aérien, en particulier au Moyen-Orient, en Asie et en Afrique, provoque souvent des déséquilibres entre l'offre et la demande. Les compagnies intensifient leurs réseaux et investissent dans leurs flottes d'avions. De ce fait, une forte pression s'est instaurée pour attirer les PNT très qualifiés vers les petites compagnies aériennes africaines ou de l'océan Indien en forte croissance. Les grands transporteurs peuvent plus facilement rivaliser pour attirer les meilleurs professionnels souvent avec des salaires intéressants. Outre la rémunération, la réputation de la compagnie aérienne et le cadre de vie jouent un rôle non négligeable dans le choix des PNT. Le régime fiscal du pays de résidence est un autre facteur

déterminant. Par conséquent, certains pays sont plus attrayants que d'autres. Selon nos informations, les PNT bénéficieraient même de certaines facilités financières et fiscales.

Se former tout le long de sa carrière et évoluer dans son métier est également une motivation importante pour les jeunes PNT. 1500 heures de vol sont en effet nécessaires pour être éligible de piloter par exemple un avion long courrier.

« Nos jeunes PNT peuvent évoluer au sein de notre flotte d'avions » a déclaré Cécile Roulof, responsable de la formation et de l'entraînement des équipages chez Air Austral. « Ils commencent à s'exercer sur des avions à hélices de type ATR pour ensuite se former sur nos Boeing 737 avant d'opérer des vols long courrier aux commandes de nos Boeing 777 ».

L'augmentation du trafic aérien et la croissance économique en Afrique et dans l'océan Indien poussent donc les compagnies aériennes à redoubler d'efforts en termes de recrutements locaux et de développement des compétences. La formation est donc un moteur incontournable sur lequel reposent la réussite et la pérennité de leur développement.



## The industry's most comprehensive offering for your crew training and sourcing needs

From training the next generation of cadet pilots to offering airline tailored pilot training and flexible crewing solutions, CAE offers airlines and aircraft operators the most comprehensive portfolio of commercial pilot training and sourcing solutions.

*Have a conversation with CAE about your pilot training and sourcing needs.*



## African 'first' for FlightSafety

FlightSafety International is partnering with South Africa's largest general aviation company, National Airways Corporation (NAC), to host its FlightSafety Maintenance Training Centre.

Based at Lanseria near Johannesburg, FlightSafety will now offer training for maintaining Pratt & Whitney Canada (P&WC) engines in South Africa and the surrounding region, through the NAC operation.

"We are pleased that NAC has become a provider of our comprehensive, high-quality maintenance training courses," said Mike Lee, FlightSafety's director, business development maintenance training.

"Technicians who maintain and support P&WC engines in South Africa and the neighbouring countries will benefit from the in-depth classroom and hands-on practical technology-based training curriculum that we will provide through this agreement with NAC."

FlightSafety is providing NAC with courseware and training equipment from its Matrix family of products, including a graphical flight deck simulator, desktop simulator for classroom instruction, training engines, and specialty tools.

NAC instructors will be trained and qualified by FlightSafety, and will also receive approval from aviation regulatory agencies as required.

Through this agreement, NAC will begin with an initial offering of 'line and base' courses for



maintenance training on the PT6A, and PW100 series of P&WC engines.

"NAC is delighted to be the first FlightSafety maintenance training centre on the African continent and is looking forward to bringing many technicians in line with international training standards," said Tertius van Jaarsveld, NAC fixed-wing maintenance director.

"The high-quality standards of FlightSafety training now allow a technician to be trained closer to home base, eliminating the costly travel abroad."

FlightSafety is the recognised training provider for

the P&WC engines, including the PT6A, B, C, and T series, PW100/150 series, PW206/207 series, PW210 series, PW300 series, PW500 series, PW600 series, and JT15D series.

The training programmes offered by FlightSafety meet international regulatory standards and are approved by FAA FAR 147, EASA, CASA, and Transport Canada. Training was previously only available in Dallas/Fort Worth, Texas; Wichita, Kansas; West Palm Beach, Florida; Montreal, Canada; Toronto, Canada; Paris, France; Beijing, China; and Curitiba, Brazil.



## EGYPTAIR TRAINING CENTER

Established in May 1932



### Cockpit Crew Training

- Type Rating
- Full Flight Simulators "TRTO Approved" (A320,A340,A330,B777,B737 NG)



### Cabin Crew Training

- Type Courses (Emergency and Service)
- Cabin Evacuation Emergency Trainer (CEET)
- CST(Cabin Service Trainer)



### Maintenance Training

- Type Courses
- Borescope,NDT, Structure Repair, Engine Run up

Address: Cairo International Airport - Cairo - Egypt  
 P.O. Box: 11776 Tel.: +202 2265 6262 Fax: +202 2265 6240  
 Website: <http://training.egyptair.com> E-mail: [trainingcenter@egyptair.com](mailto:trainingcenter@egyptair.com)  
[Facebook.com/EgyptAirTrainingCenter](https://www.facebook.com/EgyptAirTrainingCenter)



TRAINAIR PLUS



# SPRINGBOKS SPRINGBOARD

«Un tremplin sud-africain » – Page 80



**W**hen Jim Davis resurrected the old World War Two pilot training base at Port Alfred, the long-term effect would resonate throughout Africa and beyond.

Nowadays, 43 Air School, under the ownership of Lanseria-based National Airways Corporation, is considered the continent's leading industry training establishment.

Davis opened for business in 1988 and by 1995 had attracted its first group of airline-sponsored trainees.

At the time, African airline pilot training was dominated by government-supported institutions like the Addis Ababa-based Ethiopian Airlines Academy and Nigeria's College of Air Training (NCAT).

NCAT was established in the sixties and jointly funded by the United Nations and Nigerian Federal Government. Other establishments existed in Zambia: the Zambian Air Services Training Institute (ZASTI) and Uganda's East African Civil Aviation Academy in Soroti, Uganda.

**Dan Brightman** *discovers that aggressive marketing and a stable political culture has made South African flight training establishments more attractive to African airlines and public service operators.*

When South Africa's National Party Government was replaced in the early nineties, ending years of apartheid rule, access to the nation's training infrastructure became a practical exercise for African airlines.

Established career flight schools like Port Elizabeth's Progress Academy and George's Cape Flying Services began to successfully

market their services throughout Africa and even to the Middle East. Their targets were government-sponsored African airline flying candidates, as well as paramilitary services needing to train helicopter and fixed-wing pilots.

Today, South African flight schools dominate the continent and provide comprehensive training courses beyond simple pilot training.

For example, 43 Air School has opened its own commercially-driven air traffic control training centre and George-based Cape Flying Services, which was sold to Chinese Government investors and renamed AVIC International Flight Training Academy (AIFA), is now preparing future instructors and airline pilots for the dramatically expanding Chinese airline industry.

Smaller schools have also benefited by attracting students faced with stringent entry barriers to traditional US academies.

The South African training industry has not only benefited from its open trading relationships

Continued  
on Page 80

CONTINUED FROM PAGE 79

with the rest of Africa, it has also attracted foreign students from Asia.

The downside has been a relative drop in recreational and business pilots, as airports become more inaccessible to businessmen, enthusiasts, aircraft owners and, indeed, anyone with a passing interest in aviation.

The South African regulatory authorities, with little resistance from flight school owners, have also broken away from international standards to dramatically increase the required ground school times for basic PPL candidates.

Almost all civil aviation authorities in Africa are remiss in gathering and distributing data. Even vital accident summaries are classified in order to prevent a poor safety image from being publicised, with the irony that this reluctance to disseminate information places African CAAs in a bad light.

The South African CAA also fails to gather and publish vital statistics relating to flight training. This information would go a long way in helping flight schools identify industry weaknesses and strengths.

However, the South African Civil Aviation Authority lists 363 training establishments that offer varying industry-related courses, from flight



SOMMAIRE

# Un tremplin sud-africain

**Dan Brightman** nous dévoile les mécanismes et les stratégies qui ont rendu les centres de formation sud-africains très attractifs pour les compagnies aériennes africaines et les opérateurs de service public.

Depuis la fin de l'apartheid, l'accès aux centres de formation est devenu une pratique plus courante pour les compagnies aériennes africaines. La National Airways Corporation basée à Lanseria est considérée comme le premier établissement de formation de l'industrie aéronautique. Le centre a ouvert ses portes en 1988.

La Progress Academy de Port Elizabeth ou George's Cap Flying Services ont ainsi commencé à commercialiser leurs formations sur le continent africain et au Moyen-Orient. Ces centres visaient des candidats parrainés par le gouvernement mais également issus des compagnies aériennes africaines et des institutions paramilitaires qui ont besoin de former des pilotes d'hélicoptères et d'aéronefs.

La formation des pilotes de ligne en Afrique était également assurée par de grandes institutions comme l'Ethiopian Airlines Academy à Addis Ababa et le NCAT du Nigéria. Il existe d'autres centres comme la Zambia Air Services Training Institute ou l'East African Civil Aviation basée à Soroti, en Ouganda.

Les écoles sud-africaines sont prédominantes sur le continent africain et proposent des formations complètes qui vont bien au-delà de la simple formation de pilote.

Le secteur a bénéficié des relations commerciales avec le reste de l'Afrique. Il a également attiré de nombreux étudiants étrangers en provenance d'Asie. Reprise par des investisseurs du gouvernement chinois, Cap Flying Services, récemment renommée AVIC International Flight Training Academy, forme par exemple les futurs instructeurs et les pilotes d'avions avec un rythme très soutenu pour assurer la croissance de l'industrie aérienne chinoise. Les écoles plus modestes ont également bénéficié de cet élan en attirant des étudiants confrontés aux sélections très strictes des académies américaines traditionnelles.

Des statistiques montrent que l'Afrique du Sud a presque doublé la formation du nombre de pilotes professionnels entre 2002 et 2010, passant de 400 à plus de 700 diplômés par an. Par comparaison,

l'Ouganda a formé 20 pilotes pour avions commerciaux en 2012. Les étudiants étrangers constituent un tiers des diplômés des écoles de formation en Afrique du Sud. 250 partent rejoindre les compagnies aériennes africaines et les opérateurs de service public.

L'essor de ce secteur a eu un effet inverse avec une baisse relative de formation des pilotes de loisirs et d'affaires. L'accès aux aéroports est devenu très restreint

pour eux. Autre bémol, toutes les autorités de l'aviation civile en Afrique ne diffusent pas des données fiables. Des incidents peuvent être passés sous silence pour ne pas avoir une mauvaise image. Cela devient embarrassant pour la CAA qui ne parvient pas, en effet, à recueillir et à publier des statistiques. Il faut donc les aider.



L'aviation civile sud-africaine a dressé une liste de 363 centres qui offrent une large gamme de formations liées au transport aérien.

Il y a 174 organisations sud-africaines possédant une licence pour assurer un support des entraînements au pilotage et 27 opérateurs offrant des formations au pilotage d'hélicoptères.

L'avionneur ATR a récemment investi dans l'installation de nouveaux simulateurs en Afrique du Sud. Elle fonctionne déjà à 90% de ses capacités. Les avions régionaux à hélices reviennent en force offrant une motorisation plus économe en carburant.

La création de ce centre de formation a été très bénéfique pour ATR qui y trouve de nombreux instructeurs de qualité, une bonne méthodologie et une culture de sécurité bien établie.

Beaucoup de compagnies aériennes africaines, telles que TAAG Airlines, Kenya Airways, Sudan Airways et LAM ont bénéficié de cette expertise en Afrique du Sud.

L'essor de ce secteur a eu un effet inverse avec une baisse relative de formation des pilotes de loisirs et d'affaires.



training to dangerous goods instruction and English proficiency examiners.

There are 174 fixed-wing flight training organisation licenses held by South African companies and, in addition, 27 providing helicopter instruction.

Between 2002 and 2010, data suggests that South Africa almost doubled its commercial pilot output from less than 400 to more than 700 graduates per year.

By comparison, Uganda’s East African Civil Aviation Academy graduated 20 commercial pilots in 2012. Both the Ethiopian Flight Academy and Nigerian College of Air Training were unable to provide data at all, although it is believed the Addis Ababa academy is soon to take in its first MPL candidates.

Foreign students traditionally contribute a third of graduates to South African training schools, suggesting a number of around 250 passing out to join African airlines and public service operators per annum.

Over the past 15 years, airlines have embraced electronic “glass” cockpits with flat screen primary displays. Consequently, aggressively marketed flight schools have been steadily adding flat screen technology to their training fleets.

Surprisingly, 43 Air School, the region’s

Diamond Aircraft and Piper dealer, has been the slowest to adopt new electronic displays in its elderly fleet of Piper Cherokees, Piper Arrows and Senecas.

Ethiopian Airlines has already invested in a fleet of Diamond singles and twins with Garmin panels. Both AIFA and Progress Flight Academy in South Africa have also invested in new flat screen-panel aircraft to provide realistic cockpits for future airline pilots.

Africa is not just about ab initio training. French regional turboprop manufacturer, ATR, has recently invested in a new simulator facility, which is already operating at 90% capacity.

Regional propeller-driven airliners are seeing a comeback with their fuel-efficient powerplants.

ATR’s training establishment has been an astute move to a country with an abundance of quality flight instructors and a well-established safety culture. With a small number of professional training establishments leading the way with advanced integrated PPL to CPL philosophies, African airlines, such as TAAG Angolan Airlines, Kenya Airways, Sudan Airways and Mozambique’s LAM, are several operators who have taken advantage of South Africa’s expertise and ability to keep in step with current and future training methodology.



**JETSTREAM Aviation Academy**

Dubai, UAE – Athens, Greece

GR-FTO/TRTO-010



**Airline Crew Solutions**

Aeroplane/Helicopter Pilots/Aircraft Engineers/Cabin Crew.

**Aeroplane Pilot – ATPL (A) Integrated/Modular**

Can be combined with A320 or B737 Type Rating.

**Airline solutions MPL training**

As combined FTO/TRTO we can cover all 4 phases of MPL training.

**Aeroplane Type Rating – A320/A330/A340/A300, B737, ATR 42/72, DHC-8**

Q400, approved by DGCA and other Regulatory Authorities.

**Helicopter Pilot – PPL (H) / CPL (H) Integrated /Modular**

R44 helicopters. Optionally Jet Type Ratings.

**Aircraft Maintenance Engineers Training\* – EASA Part 147 approved**

Initial Basic and Type Trainings.

**Cabin Crew Initial Training – According to airline requirements and**

EU OPS 1.1005.

**Strong Points:**

- JAA/EASA licence.
- Accredited instructors with expertise in airline training.
- Flight Training in Greece - ideal weather conditions.
- Partnership with major airlines.



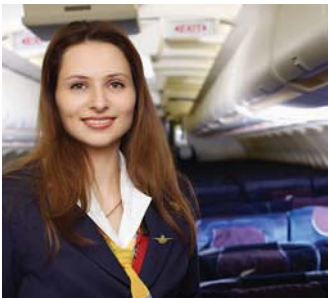
JETSTREAM Aviation Academy  
Athens Int’l Airport GREECE | Silicon Oasis High Bay, Dubai U.A.E.

T: +30 210 3541333 | T: +971 43924416  
E: info@jetstream.gr | E: info@jetstream.ae

# World-Class Training. **DELIVERED.**



**ONSITE INTEGRATED TRAINING = MAJOR COST SAVINGS**



**DISCOVER THE FLIGHTPATH DIFFERENCE**

[www.flightpathinternational.com](http://www.flightpathinternational.com) • 1-705-434-0058



*ARINC has enjoyed what one senior company official described as its “first significant foray into Africa”.*  
**Steve Nichols**  
*looks at the details.*

## Nairobi win could be just the start for ARINC

Arinc's new kiosks in operation in Nairobi.

**A**RINC has extended its international footprint with a contract win for its vMUSE common-use passenger processing system at Nairobi's Jomo Kenyatta Airport.

Will Faas, senior manager, product development, airport systems for ARINC said that the Nairobi win was “the first significant foray into Africa” for the company.

The contract is for the installation of 50 self-service ARINC vMUSE kiosks spread over all three terminals. This represents the first common use passenger processing

systems (CUPPS) installation and first common use terminal equipment (CUTE) airline “club” in Africa.

The system gives the expanding airport similar passenger processing technology as London Heathrow Airport and will use the IBM T-series kiosk.

Based on ARINC's multi-user system environment (MUSE) technology, vMUSE can run an airline's own applications, today's CUTE applications and tomorrow's CUPPS technology, all on the same workstation.

This latest iteration offers significant enhancements over ARINC's earlier iMUSE common use platform and lowers costs by eliminating the need for costly bespoke printers and special paper stock for boarding passes. Inexpensive plain paper can be used to produce bar-coded boarding passes, printed using standard Windows printers.

At least 12 major airlines will use the ARINC system at Nairobi and a new core room has been built to host the vMUSE servers.

Faas added: “We are finding more demand for self-service check-in kiosks and baggage-tag printing. We may think that everyone is web literate and prints off their own boarding passes at home but that is just not true. We take the pain out of travelling for passengers using airports that are increasingly moving to self-service systems.”

At Heathrow, ARINC says that around 300,000 boarding passes are printed every month at the self-service kiosks.

ARINC recently ran a global project to upgrade all the kiosks it manages to comply with a new IATA regulation preventing airline passengers from using credit cards as a form of identification when retrieving their bookings from common use, self-service kiosks.

An airport in Botswana is also using ARINC software and is toying with the idea of installing self-service kiosks.

ARINC International's Europe, Middle East and Africa arm of the business achieved 35% growth in the first six months of 2012. Its workforce has also grown around 40% in the past two years.

### SOMMAIRE

## Une première victoire pour ARINC en Afrique

La société ARINC décroche son premier contrat en Afrique pour la mise en place d'un système de gestion des passagers, vMUSE, à l'aéroport de Nairobi. Le contrat porte sur l'installation de 50 bornes en libre-service réparties sur les trois terminaux. Douze grandes compagnies aériennes utiliseront ce système. Une nouvelle salle a été construite pour héberger les serveurs.

« Nous constatons une utilisation accrue des kiosques en self service pour l'impression des cartes d'embarquements et de bagages », a déclaré Will Faas, directeur du développement des produits et des systèmes d'ARINC. « Nos kiosques en libre-service prennent également en compte les passagers de plus en plus mobiles dans les aéroports. »

L'aéroport de Nairobi dispose d'une technologie similaire à celui d'Heathrow, à Londres. Selon ARINC, près de 300 000 cartes d'embarquement sont imprimées chaque mois dans les kiosques à Heathrow.

vMUSE apporte des améliorations significatives en utilisant des imprimantes fonctionnant sous Windows et un papier standard pour l'impression de cartes d'embarquement à code barres ou des imprimés. ARINC a démarré un projet mondial visant à se conformer à une nouvelle réglementation de l'IATA. Il s'agit d'informer les passagers sur l'utilisation des cartes de crédit comme mode d'identification lors du retrait de leurs réservations.

L'activité d'ARINC en Europe, Moyen-Orient et en l'Afrique a enregistré une croissance de 35% au cours du premier semestre de 2012. Son effectif a également augmenté d'environ 40% au cours des deux dernières années. L'aéroport du Botswana serait intéressé par le système vMUSE.



L'île Maurice a inauguré le 12 mars dernier, le nouveau terminal de l'aéroport international Sir Seewoosagur Ramgoolam. L'objectif est d'atteindre une capacité de 4 millions de passagers par an d'ici 2015. Ce projet d'envergure marque la volonté du gouvernement de faire de Maurice un véritable hub pour la région et une destination touristique de premier ordre.

C'est le vol MK053 d'Air Mauritius du 11 mars 2013 qui a été le premier à utiliser les nouvelles installations aéroportuaires du nouveau terminal de Maurice. La cérémonie inaugurale s'est déroulée le lendemain lors des célébrations nationales marquant le 45ème anniversaire de l'accession de Maurice à l'indépendance. Il s'agit également d'une pré ouverture (« smooth opening ») car les activités opérationnelles et la mise en service du nouveau terminal est prévu au cours du second semestre 2013.

La compagnie aérienne Emirates avait spécialement affrété à cette occasion, un Airbus A380 de sa flotte d'avions. Emirates relie Maurice depuis 2002 avec un Boeing 777-300. En décembre 2012, la compagnie aérienne a augmenté ses fréquences sur l'île, passant de 12 vols par semaine à deux vols quotidiens.

« Le premier vol commercial d'un A380 d'Emirates à l'île Maurice, en ce jour si symbolique, est la preuve de l'importance de cette destination dans notre réseau », a déclaré Tim Clark, Président d'Emirates. « Notre partenariat

## Nouveau terminal aéroportuaire pour l'île Maurice

«SuperJumbo trumpets in island's new airport» – Page 87

*L'île Maurice a inauguré le nouveau terminal de son aéroport international lors la fête nationale du pays le 12 mars dernier.*

**Vincent Chappard** était présent à cet événement.

avec Maurice et Air Mauritius est solide depuis le début de nos opérations voici 10 ans. En tant qu'un partenaire majeur de l'industrie touristique du pays, nous continuerons à soutenir Maurice à travers notre réseau pour stimuler le trafic.»

Le nouveau terminal de l'aéroport SSR est l'un des projets aéroportuaires les plus impressionnants d'Afrique. Avec un investissement de 12 milliards de roupies (300 millions d'euros), le pays se dote non seulement

d'une formidable infrastructure pour encore mieux recevoir ses visiteurs, mais aussi d'un emblème de modernité. L'aérogare a joué un rôle vital depuis toujours dans le développement global de l'île.

« Les travaux ont été réalisés non seulement dans les temps, mais également selon le budget alloué grâce à une bonne gestion du projet. Je tiens à saluer l'ensemble des partenaires de l'aéroport et les compagnies aériennes qui ont



collaboré pleinement à la réalisation de ce terminal », a déclaré Serge Petit, directeur général d'Airports of Mauritius Ltd (AML).

La construction de ce nouveau terminal a été confié à la société Airport Terminal Operations Ltd (ATOL), partenariat entre AML et Aéroport de Paris Management. Le financement de cette infrastructure a été assuré par AML mais également par le biais d'un prêt de 2% sur une période de 15 ans auprès de l'Exim Bank of China. Ce projet ambitieux a été réalisé par la société China State Construction Engineering Ltd. Le groupe Louis Berger a été nommé comme consultant pour le suivi du chantier en conformité avec les meilleures pratiques de l'industrie et les normes internationales. ATOL gèrera également le nouveau terminal pendant les premières années d'exploitations.

« C'est le plus important investissement en terme d'infrastructures jamais réalisé dans l'histoire de l'île Maurice » a déclaré Rajiv Servansingh, président du conseil d'administration d'ATOL. « Ce nouveau terminal va positionner le pays comme un hub régional pour l'Afrique dans le domaine du commerce, de l'éducation et des industries de services ». Avec ce nouveau terminal, l'objectif du gouvernement mauricien est de s'assurer d'attirer 4 millions de passagers à terme pour soutenir le développement économique du pays.

La modernisation des

Continuer à  
la page 86



**C'est un moment historique pour l'île Maurice avec l'arrivée du premier Airbus A380 d'Emirates le 12 mars dernier, lors des célébrations nationales marquant le 45ème anniversaire de l'accession du pays à l'indépendance. Ce fut également le premier vol commercial à utiliser le nouveau terminal de l'aéroport international SSR. Tim Clark, président d'Emirates, a tenu à féliciter Maurice pour ses infrastructures permettant d'accueillir l'A380 et a émis le souhait que cet avion puisse desservir le pays à l'avenir. Emirates a récemment augmenté ses fréquences sur Maurice avec maintenant deux vols quotidiens.**

**SUITE DE LA PAGE 85**

infrastructures aéroportuaires va inscrire Maurice comme le centre névralgique de l'Afrique et va intensifier ses liens avec ses voisins de l'océan Indien, selon Rajiv Servansingh. Le pays souhaite à travers ce projet mettre en avant ses atouts et consolider ses assises dans les domaines d'excellence autour d'un « knowledge hub ». Maurice pourra ainsi mieux positionner les secteurs porteurs comme la formation, l'éducation et également le tourisme médical.

L'aéroport SSR pourrait à terme devenir un aéroport de transit. La concurrence est toujours accrue de la part des autres « hubs » de correspondance en Afrique et aux Emirats Arabes Unis. Le plus important est de garantir aux passagers un haut niveau de satisfaction et un service efficace pour que le transit puisse avoir un attrait et se développer durablement.

L'aéroport SSR a connu un essor de son trafic depuis les années 2000. Il accueillait, en 1999, un peu plus d'un million et demi de passagers pour atteindre 2,6 millions en 2008. En raison de la croissance rapide et continue dans ses activités, de nombreuses modifications ont été graduellement réalisées pour répondre aux demandes croissantes des clients. Cependant, le nombre d'arrivées a stagné depuis 4 ans avec environ 2,6 millions de passagers, en raison partiellement de la saturation de la capacité de l'aéroport.



La structure du New Airport Terminal se décline sous le profil de l'arbre voyageur (Traveller's Palm) avec comme toile de fond les montagnes et le bleu de l'océan Indien. La nouvelle infrastructure aéroportuaire sera capable d'accueillir 4,5 millions de passagers annuellement, soit une moyenne de 1 640 passagers par heure en période de pointe contre 750 actuellement. Le terminal couvre une superficie de 57 000 mètres carrés. Il est doté de 5 aires de stationnement dont une compatible pour accueillir des Airbus A380, 52 guichets pour les passagers en partance, 26 comptoirs d'immigration, 6 carrousels pour la réception des bagages des passagers à l'arrivée et de cinq ponts télescopiques pour l'embarquement et le débarquement des passagers. À l'extérieur du terminal, de nouvelles facilités de parking sont déjà disponibles alors qu'un espace spécial est prévu pour les accompagnateurs des passagers au départ comme à l'arrivée.

Par ailleurs, les passagers bénéficieront de services supplémentaires comme de nombreuses boutiques de produits hors taxes et des zones de restauration. La Mauritius Duty Free Paradise (MDFP) vient de nouer un partenariat avec la société Suisse Dufree, le deuxième fournisseur mondial de produits hors taxes. La MDFP souhaite proposer aux passagers des produits d'excellente qualité à des prix compétitifs afin de garantir un shopping « value for money ». Cette activité est également un apport financier



important pour la Mauritius Duty Free Paradise (MDFP). Le groupe AML a enregistré en 2011 un « profit record » d'1,4 milliard de roupies (35 millions d'euros) incluant 350 millions de roupies (8,7 millions d'euros) des activités de MDFP.

Du design à la construction, ce nouveau terminal a été réalisé afin de répondre au mieux aux recommandations environnementales en adéquation avec le concept « Maurice, île durable ». De nombreuses pratiques innovantes ont été mises en place comme l'utilisation de l'architecture du terminal pour le captage d'eau de pluie, l'usage d'énergies solaires avec des systèmes de panneaux photovoltaïques, l'utilisation maximale du verre et une gestion optimale de la climatisation.

Les compagnies aériennes desservant Maurice ont été fortement associées comme partenaire au projet. Ainsi Air Austral, Air France, Air Mauritius, Air Seychelles, British Airways, Condor, CorsairFly, Emirates, South African Airways se sont réunis au sein de groupes de travail pour l'aménagement de ce nouveau terminal. S'il y eu des attentes spécifiques des compagnies aériennes vis-à-vis du futur terminal, c'est bien en terme de confort et d'espace. Il s'agit de disposer de meilleures conditions d'accueil des passagers avec des zones d'attente plus vastes et plus confortables afin d'éviter les congestions auxquelles les compagnies sont confrontées à ce jour et également d'avoir une fluidité pour les passagers tant à l'embarquement qu'au débarquement.

Air Mauritius attend la fin des travaux avec impatience afin de donner un meilleur service à l'ensemble de ses passagers.

« Ce nouveau terminal, offrant plus de capacité et des infrastructures plus modernes, nous permettra d'améliorer notre offre et d'optimiser notre fonctionnement avec, nous l'espérons, un impact positif sur notre yield » a déclaré Fooad Noorauly, directeur juridique, de la communication et secrétaire général d'Air Mauritius.

Cette infrastructure s'intégrera en effet dans l'activité d'Air Mauritius, qui adapte son offre, son réseau, ses fréquences et ses partenariats dans une logique d'efficacité, non seulement pour

la compagnie mais aussi pour l'économie du pays. Air Mauritius est en effet un lien indispensable de l'île dans l'océan Indien et avec le reste du monde.

Le premier coup de pioche pour la construction de ce nouveau terminal a eu lieu en mars 2010 avec le démarrage des fondations. L'année 2011 fut marquée par l'arrivée des charpentes métalliques. Ces superstructures ont servi de base pour l'édification du nouveau terminal.

« Pour se faire une idée de l'envergure du projet, plus de 14 000 tonnes d'éléments ont été nécessaires pour la structure en acier, soit l'équivalent d'une fois et demie de la masse de la tour Eiffel » a déclaré John Borden, responsable de projet pour le groupe Louis Berger.

L'année 2012 a été marquée par la concrétisation de 2 gros projets de modernisation de l'aéroport.



Après 14 mois de travaux, le revêtement de la piste de l'aéroport SSR a été achevé. Longue de 3,4 kilomètres et large de 75 mètres, elle permettra ainsi la venue des Airbus A380 et des Boeing 787 dans des conditions optimales. Les infrastructures de service de la piste ont également été modernisées avec entre autres de nouvelles lumières de balisage. Le deuxième projet a été la construction d'une piste d'urgence (Parallel Taxiway) d'une longueur de 2,4 kilomètres. Elle a été mise en service fin novembre 2012. Cette infrastructure permet aux avions de libérer la piste principale plus rapidement après l'atterrissage. L'utilisation de cette piste représente une économie de temps et de carburant pour les avions et permet de fluidifier le trafic. Ces 2 projets ont optimisé la capacité opérationnelle de l'aéroport lui donnant ainsi une nouvelle envergure.

L'infrastructure aéroportuaire s'est également dotée de sept passerelles télescopiques de haute technologie fabriquées en République populaire de Chine. Ces passerelles seront installées aux cinq portes d'accès du nouveau terminal. Pour accueillir l'A380, ATOL prévoit d'opérer trois passerelles pour assurer l'embarquement et le



## SUMMARY

*Mauritius celebrated its national day with the opening of a new airport terminal and a visit by the world's largest passenger jet.*

*Vincent Chappard was there to witness the occasion.*

## Superjumbo trumpets in island's new airport

Delays to the official opening of a new airport terminal at Sir Seewoosagar Ramgoolam (SSR) International Airport on the island of Mauritius were all but forgotten as the new building was opened as part of the country's national day.

The airport is targeting a capacity of four million passengers per year by 2015 as part of government plans to support the island's growth as a tourist destination, but also to act as a key hub for the region.

Originally planned for December 2012, the opening ceremony was held during national celebrations marking the 45th anniversary of the accession of Mauritius to independence from the UK on March 12.

This is a soft opening, as the full operational and commissioning of the new terminal is expected by July this year.

The first visitor to the terminal was an Emirates A380, especially chartered for the occasion, with the superjumbo making its first ever appearance to Mauritius. The Dubai airline has been operating flights to Mauritius since 2002 utilising a Boeing 777-300.

The new terminal is, arguably, one of the most impressive developments in Africa today. An investment of 12 billion rupees (\$388 million) has led to a national symbol of modernity, as well as playing a vital role for the overall development of the island.

The construction was awarded to Airport Terminal Operations Ltd (ATOL), a partnership between Airports of Mauritius Ltd (AML) and Aéroports de Paris Management. Funding was provided by AML and also through a 15-year loan from the Exim Bank of China.

This ambitious project was conducted by the China State Construction Engineering Company with the Louis Berger Group appointed as consultants. ATOL is set to manage the new terminal.

"This is the largest investment in terms of infrastructure ever undertaken in the history of Mauritius," said Rajiv Servansingh, ATOL's chairman. "This new terminal will position the country as a regional hub for Africa in the field of commerce, education and service industries.

"Competition is always increased by the other hubs connecting Africa and the United Arab Emirates. The most important thing is to ensure a high level of passenger satisfaction," he added.

The airport has seen rapid growth in the past decade. In 1999 there was a little more than 1.5 million passengers but by 2008 that had increased to 2.6 million – maximum capacity.

This led to stagnation for the past four years.

Now the airport is ready to grow again with capacity for an average of 1,640 passengers per hour at peak times against 750 currently.

The terminal covers 57,000sqm. It has five parking places on the apron and, as it proved on national day, is capable of handling the Airbus A380. The airport infrastructure features seven telescopic aerobridges, made in China.

For the A380, ATOL will operate three gateways to ensure the embarkation and disembarkation of about 700 passengers per flight. There are 26 immigration counters and six baggage carousels to improve the experience for the international passengers.

Outside the terminal building there are new parking areas.

"To get an idea of the scale of the project, more than 14,000 tonnes of steel was used in the main structure – that's the equivalent of one-and-a-half times the mass of the Eiffel Tower," said John Borden, project manager for the Louis Berger Group.

The project also included the resurfacing of the airport's 3,400 metre runway and included new lighting systems. The authority also built a 2,400 metre parallel taxiway that will operate as an alternative emergency landing strip.

This new taxiway, in normal operations, enables aircraft to vacate the main runway quicker after landing. This represents a saving of both time and fuel for aircraft as well as helping the air traffic movements during busy times.

The airport management team has also been working on the retail experience. The Mauritius Duty Free Paradise (MDFP) is to forge a partnership with Switzerland Dufree, the second largest global provider of duty-free products.

Mauritius has been very conscious of environmental issues and the new terminal features a number of innovations, including the capture of rainwater, use of solar energy with photovoltaic systems; the maximum use of glass and optimal management of air conditioning.

The airlines that fly to Mauritius were also strongly involved as partners. Air Austral, Air France, Air Mauritius, Air Seychelles, British Airways, Condor Airlines, Emirates and South African Airways met in working groups for the development of the new terminal.

More flights will be available especially to Asia, Europe, China, Russia and Brazil.

The new terminal is, arguably, one of the most impressive developments in Africa today.

débarquement d'environ 700 passagers par vol. Les trois passerelles pour l'A380 pèsent chacune 31,8 tonnes. Le manque de ponts et de passerelles devraient être réglé avec la nouvelle aérogare.

Un outil crucial pour le développement touristique

Selon les derniers résultats du Airport Service Quality Survey de l'Airports Council International (ACI), pour 2011, l'aéroport SSR est devenu l'un des meilleurs aéroports internationaux en Afrique. Il est passé de la 80ème à la 31ème place dans le classement mondial des aéroports internationaux, loin devant quelques aéroports européens de renom. L'aéroport affiche un palmarès flatteur en terme de courtoisie, du sens du service, des opportunités d'achats hors taxe, de la qualité du contrôle de sécurité et des services de douane.

La nouvelle infrastructure aéroportuaire est un élément indispensable de la stratégie du gouvernement de faire de l'île Maurice une destination touristique phare. L'enjeu est déterminant pour l'avenir de cette industrie.

« Nous menons des actions fortes en particulier sur les marchés émergents dont le Brésil, la Russie, l'Inde et la Chine » a déclaré Michael Yeung Sik Yuen, ministre du Tourisme et des loisirs de l'île Maurice. « Des partenariats ont été noués avec les tour-opérateurs, des représentants des compagnies aériennes et des agences de voyages afin d'attirer plus de touristes vers Maurice ».



Selon le ministre, l'accessibilité vers Maurice sera plus fluide. Plus de vols seront disponibles notamment vers l'Asie, l'Europe, la Chine, la Russie et le Brésil. La destination mauricienne sera de ce fait plus visible sur la carte mondiale. Ce sera également un moyen de mettre en valeur ses offres et ses produits. Air Mauritius a d'ailleurs repris le 23 janvier dernier, sa route directe vers Shanghai où elle opère deux rotations hebdomadaires depuis l'aéroport SSR. La compagnie nationale propose également des vols vers Shanghai grâce à des accords de partage de codes via Kuala Lumpur et Hong Kong. Autre élément important, cette nouvelle infrastructure va permettre également d'augmenter la capacité d'accueil pour les bateaux de croisière voguant dans la région.

L'augmentation des passagers va donc se faire progressivement. Il sera intéressant de suivre avec attention l'évolution de l'accès aérien sur l'île de même que la réalité du marché. De nombreuses compagnies aériennes sont soit en cours de prospection ou n'ont pas encore souhaité franchir le pas. Virgin Atlantic a quant à elle arrêté sa desserte sur Maurice depuis quelques années. D'autres compagnies aériennes du Moyen-Orient s'intéresseraient à la destination Maurice.

AML ne compte pas s'arrêter en si bon chemin pour moderniser l'aéroport SSR. Elle a déjà initié des projets de développement pour les zones cargo et fret. Ainsi 72 hectares ont été identifiés autour de l'aéroport pour l'implantation de nouvelles activités.

*Airport building and upgrades are taking place all over the continent.*

**Nolene Scott** reports from the Africa Airport Expansion Summit in Johannesburg.

# Expansion driven by business and tourism

**F**lying into any country anywhere in the world takes the business or leisure traveller through the portals of an airport. This is the traveller's first impression of the destination country.

Growing tourism and business in Africa, coupled with an increasingly affluent middle-class, are key drivers to the rebuilding and expansion of airports on the continent, according to Tebello Mokhema, Airport Council International (ACI) project manager for membership, communication and strategy.

She was speaking at the Africa Airport Expansion Summit in Johannesburg in February.

Reinhard Zeiler, senior airport advisor for the Munich Airport Company, who views the market for airport development as healthy, echoed her sentiments. Aviation growth in Africa stood at 5 to 6% per annum. Domestic air travel on the continent was growing at 10 to 12%, with East Africa rising the fastest.

This puts tremendous pressure on Africa's airports, and there is a need to catch up on technology and improve the customer experience.

Mokhema said: "Only 1% of global airport investments takes place in Africa – despite the continent boasting some of the fastest growing economies in the world, notably Ethiopia, Mozambique, Tanzania, Zambia, Nigeria and Ghana."

It is, therefore, heartening that burgeoning tourism and business has prompted these countries to invest in airport expansion and modernisation. Nigeria is currently redeveloping no less than 11 of its 22 airports simultaneously.

Kenya is spending in excess of \$1.1 billion to elevate its airports to category 1 status and position Nairobi as the financial and commercial hub of east and central Africa.

Increased air travel, especially tourism, prompted Zambia to invest \$450 million in airport upgrades. These include Harry Mwaanga Nkumbula International – formerly Livingstone – and Simon Mwansa Kapwepwe Airport that was built in 1938. Mozambique is modernising both Maputo and Pemba, and is building a new airport at Nacala.

Further afield Morocco, having seen a 14% growth in passenger numbers, is investing in new terminals, a cargo facility and runways. Similarly



Egypt and Libya – the latter working on no less than 19 airports including Tripoli where terminals, runways and the tower are upgraded.

Togo in West Africa, emerging as a strong regional hub, is modernising its entire transport sector.

Most of these developments and upgrades are aimed for completion by the end of next year.

South Africa's rebuilding programme ran its course when state-owned airports company ACSA completed King Shaka International at Durban. Beside maintenance of these facilities ACSA is now very much focused on retail, advertising, car parks and property development. It uses public-private partnerships for property development, in which land leased to entities like large retail firms and freight forwarders, along with the developed facility, reverts to ACSA at the end of the lease period.

As Bongani Maseko, acting managing director of ACSA told the summit: "In terms of the spatial development framework, most of this land was not earmarked for airport expansion anyway. This ties in perfectly with our strategic objectives to grow our non-aeronautical business, and drive traffic to South Africa."

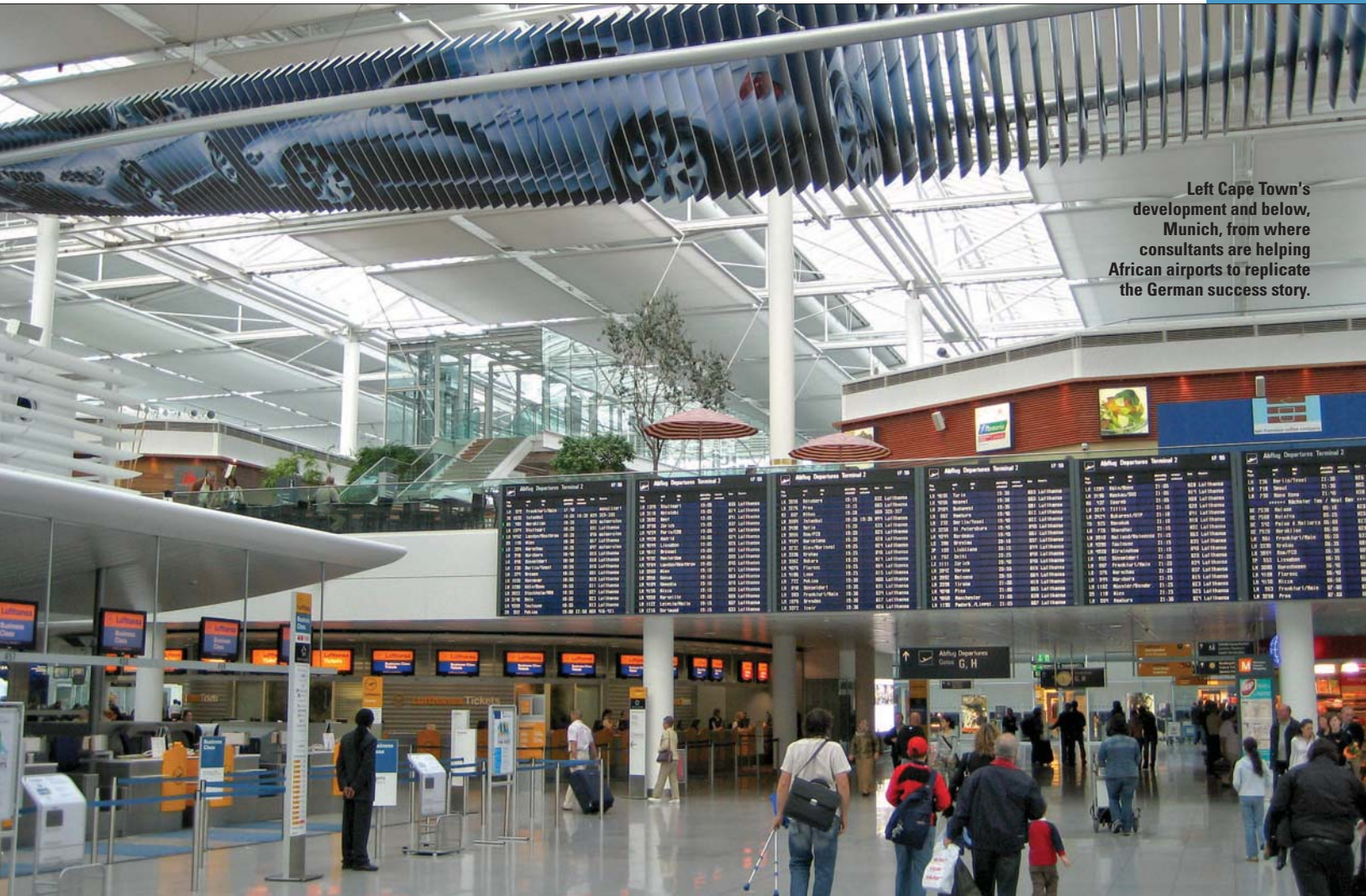
These plans include ACSA taking on the management of airports elsewhere in the world through an operating concession. As far back as 2006 it entered into a partnership to operate the Mumbai airport in India. The model provides for ACSA to hold only a minority stake of 10% with the bulk held by Indian public and private investors.

The same model applies to the 20-year concession to manage the Sao Paulo airport, which already handles 31 million passengers, and operates at 130% of its design capacity.

"Our strength is in managing an airport, rather than in finance or shareholding," Maseko explained. "We go in as an airport operator with the necessary human capital, and bring on board the financial expertise through the external investor partner. Where we lack technical expertise we buy, borrow or build it."

According to Maseko the Brazil and India case studies have given them confidence to venture into Africa. There are challenges on the continent, mainly debt, but Africa also sees tremendous growth in air transport. ACSA could offer the technical consultancy to give African countries a responsible solution.

Zeiler outlined a similar kind of partnership as



Left Cape Town's development and below, Munich, from where consultants are helping African airports to replicate the German success story.

far as Munich Airport's Terminal 2 is concerned. Lufthansa has a 40% stake with Munich Airport holding the remaining share.

While Lufthansa deals with aspects like traffic development and passenger processes, Munich Airport takes care of, among other things, construction and facility management, as well as retail and gastronomy outlets. These are broadly speaking part of airport operations.

Airport expansion has to take account of airport operations – operations-ready airport transfer (ORAT) – in order to avoid costly disruptions. Munich Airport applied its expertise to successfully implement airport expansions in countries ranging from Ecuador and Brazil to India, Thailand, the UAE, Cameroon and South Africa.

Similarly, engineering consultancy Royal HaskoningDHV has applied its expertise in airport upgrade projects to several African customers. It recently undertook feasibility studies, design, construction and maintenance management assignments in Mozambique, Liberia, Egypt, Botswana, Tanzania and Kenya.

Gary Fok, the firm's aviation, transport and planning principal, said Kenya represented a



**Bongani Maseko: "Our strength is in managing an airport, rather than in finance or shareholding."**

"booming market as far as airport development was concerned".

Royal HaskoningDHV's activities in The Gambia are critical to that country's economy, since, according to Fok: "Air transport is really the only way any business can be undertaken there."

Mokhema was quite blunt about African governments lacking understanding of the workings of public private partnerships and not seeing airports principally as businesses. "To operate effectively airports need to be managed as businesses that happen to be airports," she said.

Where governments own the airport through the operator, as is the case in many African countries, there is the temptation to interfere in the business.

Maseko denied that its investments were influenced by government. But other speakers felt the excessive fees charged at many of Africa's airports essentially amounted to an undue tax on a lucrative enterprise.

At least ACSA's strategic objective of seeking growth outside South Africa, in Brazil, India and elsewhere in Africa, is partly aimed at reducing the tariffs for which it had been widely criticised, Maseko concluded.

*ATR turboprop aircraft are flourishing all over the African continent and, as Ian Sheppard discovers, the success story doesn't look like ending any time soon.*

# TOP OF THE PROPS

**A**viation has long been an essential part of African life, even if growth has never been explosive, partly because of the fragmented political environment, poor infrastructure and a lack of large-scale demand.

In some areas accidents with old Russian aircraft and even old Western-built jets have led to the continent having the worst safety record of any.

Yet, at the same time, Franco-Italian turboprop manufacturer ATR has been making inroads since the mid-1980s. Its ATR 42 and ATR 72 aircraft are ideal for regional operations where airfields are likely to be basic (short and often not paved) and reliability is vital because maintenance capabilities and tools might well be scarce.

An example would be my honeymoon in 1995, when the connecting flight from the BA 747 flight into Lilongwe, the capital of Malawi, to Club Makokola on Lake Malawi was using an ATR 42, even though the resort only had a short dirt airstrip.

Not long after that, in 1999, was the infamous incident where an Air Botswana captain, disgruntled at being grounded for medical reasons, crashed one ATR 42 into the other two operated by the airline, killing himself but fortunately hurting nobody else.

Today Botswana still has two ATRs (ATR 72-

500s) operating, as well as four BAe 146 jets.

Although generally used for airline operations, ATRs have found other uses in Africa, such as transport to safari lodges. One such operator is South Africa's Federal Airlines which, as well as operating smaller aircraft such as King Airs and Caravans, also has an ATR 42 and an ATR 72.

There are four operators aplenty in Africa, with popular destinations for tourists including the Victoria Falls, Serengeti in Tanzania, Ngorongoro Crater, Zanzibar and numerous safari lodges.

#### Tourist spots

One of the most recent success stories for ATR has been Precision Air, which also operates to these tourist spots. At the end of January, just how vital the services with efficient regional aircraft are to smaller towns and cities was underlined when Precision Air restarted operations to Kigoma, on Lake Tanganyika, using an ATR 42. Kenya Airways has a 41% stake in the carrier, which also operates the ATR 42s to the Comoros Islands.

ATR aircraft are also set to be part of what could be the fastest-growing airline in Africa – FastJet – which is based on Fly540, Lonhro's former aviation operation. It already operated three ATR

72-500s when acquired by the FastJet investment vehicle, which is now also building up a fleet of Airbus narrow-bodies.

Even little Zanzibar-based Tropical Air now operates two ATR 42-300s, and has ambitions to acquire a Boeing 737NG as a longer-haul link to Johannesburg, which could further boost its regional connections, for example to Pemba in Mozambique.

For Air Mauritius, ATRs are ideal for flights to the nearby island of Réunion and even out east to the lesser-known Rodrigues Island (380 miles away, further out in the Indian Ocean).

Over on the west side of the continent, Halcyonair, founded in the Cape Verde islands in 2005, is a typical ATR operator; all around the world the type is favoured by airlines, although some (such as SATA in the Azores) have opted for Bombardier's faster, but less fuel efficient, Dash 8 family (now known in its latest guise as the Q400).

Continuing the theme of safaris and adventure travel, on March 1 Abuja, Nigeria-based Overland Airways took delivery of the first of six ATR 72-500s it has on order, becoming the latest airline in Africa to take delivery of the type (and adding to its existing fleet, a single ATR 72-200).

Officially taking delivery of the aircraft from





ATR CEO Filippo Bagnato, Overland Airways' CEO Captain Edward Boyo, said: "The addition of the ATR 72 to our fleet enables us to provide a high level of comfort. It increases our seat capacity, while ensuring that we can extend our services to new locations in Nigeria. We are proud to be the first airline in Nigeria to operate this modern aircraft type."

Boyo continued: "The delivery of the ATR 72 marks another milestone for Overland Airways as we celebrate our 10 years. It shows our commitment to continuously upgrade our fleet in line with customer expectations and to satisfy the growing market."

In north Africa, Royal Air Maroc (RAM) and Air Algérie are names long associated with ATR aircraft – in fact Air Algérie, with 12 ATR 72-500s, has the largest fleet in Africa.

Binter Canarias in the Canary Islands (part of Spain but closer to Africa) has 18 ATR 72-500s and has some operations into North Africa.

RAM has been particularly proactive in recent years, embracing the new ATR -600 by becoming launch customer, with an order for four 72-600s and two 42-600s (all now delivered). These have glass cockpits and modernised avionics, as well as the new Armonia cabin and enhanced engines.

RAM took delivery of the first two 72-600s in August 2011 for RAM Express operations.

At the time Driss Benhima, CEO of the airline, said he was very satisfied "at becoming the first operator of this regional aircraft that represents a new benchmark in regional aviation".

As is typical with sales of new aircraft into Africa, as with much of the world at present, the purchase of the new aircraft was backed by the French export credit guarantee agency Coface and its Italian equivalent SACE, the 12-year loan facility being arranged by BNP Paribas with involvement from KfW IPEX Bank, for France and Italy respectively.

**Emerged from the chaos**

Continuing the North African success story, there is Tunisair Express, which has two ATR 72-500s and an older -200 (along with a Bombardier CRJ-900 for longer routes), and Libyan Airlines, which has emerged from the chaos of 2011 and continues to operate two ATR 42s alongside its jet fleet.

When it ordered the aircraft in October 2009, CEO Captain Mohamed Ibsem, said: "We have decided to purchase the ATR aircraft because of their flexibility to operate in challenging conditions and tough environments, like the ones that can be

found at some destinations in the Libyan desert. Thanks to our brand new ATR 42-500s, we will be able to improve the quality of our regular air connectivity to several local communities, thus contributing to strengthen both human and business links in our country. The operating costs of the ATRs, which are the lowest of the regional market, have also clearly contributed to our choice, as they will enable us to obtain an optimal exploitation, especially on low-yield routes."

There is also a special mission ATR in Libya, used since 2009/10 for maritime patrol, being similar to the aircraft operated by the Italian coastguard.

In the Middle East, ATRs have proved popular as well, although less so due to the longer nature of the routes there, with fewer niche applications such as groups of islands.

However, Arkia Israeli Airlines (five 72-200s), Israir (two 72-200s), Iran's Arseman Airlines (six 72-200s) and Oman Air all operate ATR aircraft.

Borajet of Turkey also has five 72-200s, plus there is an ATR 72 ASW aircraft operating with the Turkish Air Force; and Syrian Arab Airlines has two ATR 72-200s, although operations are somewhat curtailed due to sanctions placed on the Assad regime since July 2012.



*CEO of ATR Filippo Bagnato  
tells Ian Sheppard about the  
manufacturer's strategy for Africa.*

# The perfect solution for the African market

## **Q** You say that Africa has been a priority since day one for ATR but why was this?

Africa and the Middle East have been a priority for ATR since day one.

ATR has never taken its eye off this region and is constantly expanding its presence there.

Today there are 37 African airlines flying 110 ATRs – almost 70% more ATR aircraft than in 2005.

There are also five additional ATRs that will be delivered to African carriers in the coming months. For that reason, last year we opened a training centre in Johannesburg because we are convinced that ATR is the perfect solution for the African market.

## **Q** What makes ATR aircraft so attractive there?

ATR regional aircraft have always been a solution for African airlines due to their unrivalled fuel-efficiency and low operating costs on shorter routes. On a typical regional route, an ATR 72-600 burns up to 35% less fuel than other regional turboprops, and up to 50% less than regional jets of the same size.

ATRs are also popular in Africa due to their ability to land and take off on unpaved runways, as well as their ability to operate from small airfields with little maintenance and handling infrastructure.

## **Q** Was Air Mauritius the first in 1985?

Yes, ATR entered Africa at the beginning of the programme with Air Mauritius. Other pioneer airlines were Comair, Airlink and Air Botswana.

## **Q** What was the most recent order?

The most recent order was from the Tanzanian carrier Precision Air Services for five ATR 600s (four ATR 42-600s and one ATR 72-600), signed in December 2011.

The delivery of the first ATR 42-600 of

Precision Air took place in November 2012. This was also the very first delivery of an ATR 42-600 worldwide.

## **Q** Which African carriers led the way?

Both the first ATR 42-600 and the first ATR 72-600 were delivered to African carriers (Precision Air Services and Royal Air Maroc). RAM placed an order for four ATR 72-600s and two ATR 42-600s in 2009 and became the very first operator of the ATR 72-600, which was introduced to their fleet in August 2011.

## **Q** How many are being operated in Africa and the Middle East now and by whom?

There are 110 ATRs in service in 25 countries being used by 37 operators; five aircraft are in backlog – two ATR 42-600s for Royal Air Maroc, two ATR 42-600s and one ATR 72-600 for Precision Air Services.

## **Q** Is it correct you have a 65% share of the African turboprop airliner market?

Yes, we have an operating and backlog share of more than 60% in Africa when compared to the Q300/Q400 family.

## **Q** What factor has meant you've gone from 39% in 2004 to 65% now?

As previously mentioned, the fact that the ATR aircraft have the lowest operating costs and have outstanding performance from small airfields and unprepared runways is clearly playing a role in the evolution of the success of ATR in Africa.

It is also worth highlighting the strong residual values of the ATRs, which has contributed to expanding the presence of these aircraft across the region.

New regional airlines have emerged and the second-hand aircraft market is thriving in Africa.

The turboprop, with its appropriate size, provides huge seat-cost savings.

As an example, take Cape Town to Port

Elizabeth in South Africa. This is a typical regional route in Africa operated by increasingly inefficient single-aisle jets with low load factors. The distance, below 350 nautical miles, makes the ATR 72 the right tool to optimise operating costs and to fine-tune seat capacity.

## **Q** Have there been any recent developments with Air Algeria?

Air Algeria today has a fleet of 12 ATR 72-500s. This is the largest ATR fleet in Africa. We have been successfully partnering with this carrier since 2003 and we expect to further develop this relationship in coming years.

## **Q** What % of the overall fleet and of the overall sales and backlog does Africa represent, and will this % grow?

Today, Africa-Middle East represents 12% of the total ATR aircraft in service, and has represented some 10% of the sales in recent years. We expect the number of sales to increase in Africa in the coming years with the development of regional aviation, as previously experienced by other regions of the world.

## **Q** What sales and fleet growth do you forecast for Africa?

We estimate a demand for some 400 turboprop aircraft in the region in the next 20 years in the 50-90-seat market.

This is some 10-12% of the expected global demand for turboprops around the world. Africa has already accounted for 10% of the total ATR sales in recent years.

## **Q** Can you name some specific opportunities for replacement aircraft in Africa?

Africa is a market with a large amount of second-hand aircraft that will need to be replaced in the near future, and this is affecting both former generation turboprops and regional jets. As mentioned, ATR sees a big potential there.



‘ The turboprop, with its appropriate size, provides huge seat-cost savings. ’

FILIPPO BAGNATO

Botswana and Nigeria, are among the airlines using the Centre. Other airlines, such as Australia’s SkyWest, have carried out training in Johannesburg; and Brazilian operators are also undergoing training there.

The centre is equipped with a full-flight simulator (FFS) offering the full range of training possibilities for the ATR 32-300, ATR 42-500, ATR 72-200 and ATR 72-500 models, which are precisely the aircraft being flown across the continent and Indian Ocean region by ATR’s clients.

It also benefits from a virtual procedure trainer (VPT) – also known as flat panel trainer or cockpit trainer – and the exact same training software as in Toulouse.

There are rooms for training 12 or six people and each one is manned with individual computers that provide full access to ATR training documents and procedures.

There are also briefing rooms to review all flight simulator sessions, including a possibility to see the sessions filmed and played back afterwards. The FFS can handle up to 6,000 hours of pilot training per year.

**Q Can you give examples of airlines that have been able to purchase because of financial backing being possible?**

ATR customers in Africa have largely used the financial backing from French and Italian Export Credit agencies and banks. Precision Air, TACV, Air Madagascar, Air Botswana, Fly540 and many other airlines took advantage in recent years from various types of aircraft financing solutions to launch or expand their businesses.

**Q What are the average stage lengths, utilisation and cycles in the African fleet and how does this make the economics work compared to a regional jet?**

The average stage lengths are 201nm. The ATR

72s are the preferred turboprop aircraft in Africa and in 2012 had a daily average utilisation of over five cycles. As mentioned, as operating costs of the ATR are up to 40% lower than regional jets, this is clearly a real advantage for airlines.

**Q How is the training centre doing in Johannesburg?**

The ATR training centre in Johannesburg is an easy access hub accessible for clients across the African continent and the Indian Ocean region. We are achieving our targets in terms of hours of training and we are getting a very positive feedback from ATR operators going there.

Precision Air Services, Ceiba Intercontinental Airlines in Equatorial Guinea, as well as clients in

**Q What other training and support investment is planned in Africa?**

Further developing the Johannesburg training centre activity and maintaining its level of pilot attendance is the immediate goal. Additional partnerships may come in the future in Africa in the domain of support activities, as we are working on the expansion of our MRO network.

**Q Will the 90-seater appeal in Africa or is the 70-seater likely to be preferred?**

We expect the 70-seat to remain the preferred turboprop aircraft in the 50-90 seat market, not only in Africa but also worldwide. This said, the appeal and requirement of a 90-seat ATR in Africa will grow together with the growth of the market.

The Q might stand for quiet, but Bombardier's Q400 is causing quite a furore on the African continent, which boasts more operators of the aircraft than any other region of the world.

Built at Bombardier's Toronto, Ontario facility in Canada, the Q400 NextGen airliner is the latest development in the evolution of the Q400, and the advanced successor to Bombardier's Dash 8/Q-Series family.

As of the end of 2012, 463 aircraft had been sold to more than 40 operators worldwide.

Optimised for short-haul regional operations, the 70- to 80-seat Q400 NextGen aircraft has proved particularly popular in Africa's growing airline market.

"In terms of our presence in Africa, we have 47 Q400 aircraft in operation with 12 operators – that's big," said Raphael Haddad, vice-president, sales, Middle East and Africa, Bombardier Commercial Aircraft. "There is another operator that is going to be using them soon and there are three others that we are in negotiations with right now to add more Q400s.

#### A true 21st century aircraft

"It is one of the best-selling turboprops in the modern era – a true 21st Century aircraft," he added. "In Africa currently there are 107 Dash 8s; that's basically a mix of Q100, Q200, Q300 and Q400, and 56 CRJs."

Bombardier renamed its Dash 8 aircraft family the Q-Series following the introduction of the noise and vibration suppression (NVS) system in 1996, with the 37- to 39-seat Q200, 50- to 56-seat Q300 and 68- to 80-seat Q400 airliners.

The Q in Q-Series means quiet, as NVS, which was developed jointly by Bombardier and Ultra Electronics of the UK, is said to deliver the "quietest and most vibration-free passenger cabin of any propeller-driven aircraft".

Being a modern turboprop, the Q400 has the speed and range to be deployed on routes of more than 1,000nm, although it is most often used on routes of 200 to 500nm.

Its maximum cruise speed of 360 knots lets the Q400 fly on demand-driven interchangeable schedules with jets. But, throttle back to 280 knots, and Bombardier claims that the aircraft is as fuel-efficient as any other turboprop on a per-seat basis.

The Q400's high rate of climb, single-engine service ceiling, higher take-off weight (thus greater payload), optional drop-down oxygen system and jetway-compatible front airstair passenger door are factors that contribute to its operational flexibility.

Q400 aircraft are currently operating in all kinds of diverse environments – cold weather conditions in Canada and Eastern Europe; arid environments in the Middle East and Northern

# Quiet turboprop making a big noise

*Bombardier's Q400 turboprop aircraft is selling well in the Middle East and Africa region. Kelly Green finds out why.*

Africa; and the humid environments in Western North America and sub-Saharan Africa.

In November 2012 Ethiopian Airlines became the first airline to take delivery of Q400 NextGen turboprop airliners outfitted with a dual-class configuration on the production line. The new configuration features seven business class and 60 economy seats; fore and aft lavatories; a galley outfitted to provide cold and hot meals and increased cargo capacity.

Three of the five dual-class Q400 NextGen aircraft ordered by Ethiopian Airlines in February 2012 are to be operated by Togo-based Asky Airlines.

#### Unique configuration

"We are very happy with this unique turboprop configuration. In addition to the enhanced, comfortable interiors that the Q400 NextGen turboprop are known for, adding the dual-class seating enables us to provide the best possible service on domestic and regional routes," said Tewolde Gebremariam, chief executive officer, Ethiopian Airlines.

Gebremariam also said that the airline's original eight Q400 NextGen aircraft would be retrofitted with the new interiors.

"On the performance side, the aircraft's ability in hot weather and high altitude conditions is extremely important to our operations," said Gebremariam. "Overall, our experience with this

excellent aircraft in a wide range of weather and other conditions proves that it is ideally suited for operations in Africa."

So why is the Q400 so suited to operations in Africa?

Haddad explained: "The major characteristics of this aircraft are range, economics and speed. So that allows the operator to squeeze in one or two extra frequencies per day, to carry more passengers and to take them further. By doing that there is about 25% more coverage area for the operators. All these three elements together add great economic value to the operator. He can go faster, give more service to the customer, go further, and all that with a lower seat-mile cost.

"The Q-series has proved itself with its high speed, its range, its low seat-mile cost, to be very adapted to those regions. It has the economics of a turboprop and the speed of a jet. So that way the new airlines, or airlines in growth, or airlines that have to serve a low-yield market, have found that the Q400 is a particularly interesting tool to serve these destinations, while meeting the service requirement of linking point A to point B, and doing it cost-effectively."

In addition to the success of the Q-series family of aircraft in the region, Bombardier also has 56 CRJs flying in Africa with 18 operators, and this number is growing. "The CRJ is also a very effective tool, but it is for slightly longer stage





lengths, while maintaining the very attractive economics and seat-mile costs," Haddad said.

"The good thing about the CRJ is the low economics and the range and the speed that is required for Africa. Africa is big," he added.

The latest operator of CRJ in Africa is RwandAir, which has taken delivery of two CRJ900s since October 2012.

"We are very proud to introduce the CRJ900

NextGen aircraft to east Africa," said John Mirenge, CEO, RwandAir, at the handover ceremony. "Our 50-seat CRJ200 aircraft has helped expand our markets to the point where larger capacity aircraft are required to meet passenger demand. The CRJ900 NextGen jetliner is a natural progression from the CRJ200 aircraft that has served us so well. In addition, the larger aircraft have a two-class, 75-seat interior

that will allow us to offer a premium service."

Mike Arcamone, president, Bombardier Commercial Aircraft said: "RwandAir is a perfect example of a customer that successfully integrates pre-owned CRJ200 aircraft, establishes a base and grows to become a customer of new aircraft. The CRJ900 is the ideal size to allow the airline to connect its regional and international markets as it looks to expand its fleet and services with modern, fuel-efficient aircraft."

Bombardier projects that, over the next 20 years, the fleet of its commercial aircraft in the Middle East and Africa will continue to grow, forecasting deliveries of 970 aircraft in the 20- to 149-seat market segments during that period.

Alongside its burgeoning success in the MENA region, Bombardier is also introducing dedicated support. In the last 15 months the company has opened a sales and marketing office in Dubai; launched a spares depot in Dubai; added Johannesburg-based South African Express Airways as its first commercial aircraft authorised service facility (ASF) in Africa; supported the set up of a Q400 flight simulator in Addis Ababa, Ethiopia; and opened a mini regional support office (RSO) in Addis Ababa.

#### More support

"We are going to be rolling out more support in the region in 2013," announced Haddad, revealing plans to open another spares depot in Africa, as well as more ASFs and RSOs in the region.

"The customers are very happy that we are increasing our footprint in terms of support in the region. They already love our products. In six years we have increased our number of our aircraft in the region threefold, taking us up to 206 today.

"Now that we have a larger support presence and we are planning on continuing it and increasing it, that can only create an increase in sales. That is a direct reflection of customer satisfaction to what we're doing.

"The whole region has a good appetite for our aircraft," added Haddad. "Africa is in a boom. With that economic boom there is bigger requirement for travel and the least costly way of connecting the different regions together is air travel. We have been designing aircraft that provide air transport very economically. Whether it is the Q-series turboprop family, or the CRJ regional jet family, that is the key thing.

*Bilateral air service agreements can be a cumbersome affair in Africa. Keith Mwanalushi finds out from the World Bank's lead aviation expert that progress is being made to streamline the process but there is still much more to be done.*

# Open for business, but not completely

Opening up the skies anywhere in the world fosters competition and with that air transport develops.

However, when talking about a single airspace market in Africa, this refers to bilateral relationships for access to air services.

"We are not talking about what Europe has, the single sky in terms of air traffic control," said Dr Charles Schlumberger, the lead air transport specialist at the World Bank and author of *Open Skies for Africa*.

"When we did research on the Yamoussoukro Declaration (YD) – which aims at opening up air services in Africa – it was clear that about one third of all African countries at the time had state-owned airlines that could not cope with competition. These countries were not willing to open up in order to protect their own airlines, so prices stayed high. It's that simple," he noted.

## Status as nations

Back in the 1960s many newly independent African states created national airlines, in part, to assert their status as nations. Now it has been realised that the strict regulatory protection that sustains such carriers has detrimental effects on air safety records, while also inflating airfares and dampening air traffic growth.

According to Schlumberger, a historic opportunity is being missed. Around ten countries have not signed on to, or completed proper ratification of, the YD. Many others that are signatories have not implemented it.

In the meantime, most countries in Africa that have abandoned their ailing carriers and opened up to foreign operators now have air services,

**"When we did research on the Yamoussoukro Declaration (YD) – which aims at opening up air services in Africa – it was clear that about one third of all African countries at the time had state-owned airlines that could not cope with competition. These countries were not willing to open up in order to protect their own airlines, so prices stayed high."**

DR CHARLES SCHLUMBERGER

both passenger and freight, that are more efficient, safer, and with more competitive prices.

As widely believed, opening up the skies is key to this development. "It's actually happening, not everywhere in Africa but it is happening in several places," declared Schlumberger.

African aviation experts continue to lobby governments to liberalise the aviation sector in order to unlock its full potential. They cite the biggest challenge to achieving open skies as the lack of political will, as well as bureaucratic inefficiencies.

The agreements signed by senior state officials are often seen as not being fully implemented on the ground.

The YD says that air transportation within

African countries is free up to fifth freedom. "Having said that, it has two mechanisms," pointed out Schlumberger. "The principle mechanism is that country A designates an airline to fly on its behalf; this can be its own airline or an airline of country B, or C. So country A decides this airline will fly on its behalf to the other African country with continuation to a third one.

"Alternatively, countries will sign a bilateral air service agreement, which basically regulates air traffic between two countries."


## Bilateral air agreement

Schlumberger noted that politicians are generally in favour of bilateral air agreements but they need to closely relate them to the terms of the YD. "You see, many politicians really don't understand the YD; they don't even read the title. The YD is nothing else but the implementation of the declaration and since 2002 it is law, even if it is often ignored."

The book *Open Skies for Africa* provides some interesting insights. When one reviews the different regions, a fairly heterogeneous picture appears. The Arab states of north Africa have not begun liberalising 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 YD signatory, is the most active nation with respect to liberalising and expanding its air services, as it has signed an open skies agreement with the EU and has acquired controlling stakes in two African air carriers.

Schlumberger said, interestingly, in west and central Africa the

Continued  
on Page 98

A portrait of Dr. Charles Schlumberger, a middle-aged man with graying hair, wearing glasses, a dark suit, a white shirt, and a blue tie with an airplane pattern. He is smiling slightly and looking towards the camera. The background is blurred, showing what appears to be an airport or travel setting.

**“It’s actually happening,  
not everywhere in Africa  
but it is happening in  
several places.”**

DR CHARLES SCHLUMBERGER

CONTINUED FROM PAGE 96

regional communities have fully implemented YD within their respective regions. “However, you also see a few problems, but not many, such as denials of traffic, some obstacles here and there. But let’s be frank, we saw the same in France and the UK when they first opened their skies, although it was mostly due to the lack of availability of slots at Heathrow and in Paris.”

An extract from *Open Skies for Africa* continues by saying that the Common Market for Eastern and Southern Africa (COMESA) has achieved the most progress by issuing a legal instrument that would effectively have liberalised air services in 2001.

However, after delays, application of the legal notice was suspended until other elements, such as competition regulations, were prepared. While implementation remained pending, progress in other relevant matters, such as the establishment of a joint air safety and security agency, were significant steps forward.

**Least progress**

Finally, the Southern African Development Community (SADC) has achieved the least progress. According to Schlumberger, the dominant position of South Africa and the fear that its national carrier, South African Airways, would quickly wipe out competition in a liberalised southern African market, remains the main obstacles toward more progress in implementing YD.

Schlumberger would like to see the east Africa signing multilateral agreements to open up air space within that community – namely Uganda, Kenya, and Tanzania but now also Burundi and Rwanda. “They have quite a lot of private airlines but there is one state-owned airline that is still blocking the whole thing. However, there is great potential. Ultimately, it seems where you have less resistance and less traffic on paper, YD is being implemented much quicker because there is

nobody challenging it due to little or no traffic or competition.”

Then the issue of safety and security crops up. It’s often considered unrelated to the YD but in fact, according to Schlumberger, several articles of the declaration address safety and security directly and indirectly.

For instance, Article 5.1 notes that a state party may unilaterally limit the volume of traffic, the types of aircraft to be operated, or the number of flights per week for environmental, safety, technical, or other special considerations. Article 6.9 declares that the eligibility criteria for a designated airline to operate under the YD framework are that the airline must be capable of demonstrating its ability to maintain standards at least equal to those set by ICAO and to respond to any query from any state to which it provides air services.

Another issue that comes up is the signing of open skies agreements between African nations and countries in mature markets such as the United States.

In recent months the USA has signed a string of agreements with various countries, such as Zambia, Sierra Leone and the Seychelles, but some have voiced opinions about the imbalance of such agreements, and whether they are of any real benefit.

“It’s diplomatically interesting to sign any form of agreement; what else can you sign between the USA and these countries, but there is a hurdle not often talked about,” noted Schlumberger. “Once you have this agreement, a US carrier can start services quite quickly but the African airline cannot do likewise to the USA unless the FAA completes a safety audit of the oversight capacity of that country – and that is a huge hurdle.

“The oversight in many of the countries that the USA is signing these agreements with is lagging behind – it’s really more of a diplomatic exercise.”

He added that, to date, only five African countries are certified to operate services to the USA.

The relation between airport slots and air service agreements can often be confusing; this led to the highly publicised dispute regarding bilateral air services between the UK and Nigeria. Reports indicated that the UK’s Airport Coordination Limited (ACL) – which allocates airport slots – denied Nigerian airline Arik Air the slots it requested on the Abuja-Heathrow route, which led to the termination of those flights. In a reciprocal move, the Nigerian authorities are said to have created financial pressures on UK carriers operating services to Nigeria.

**Limited availability**

Details of the exact outcome of this dispute are often sketchy but, when approached, the ACL said due to the very limited availability of slots from the slot pool, a large number of airlines had chosen to enter into commercial arrangements with other airlines in order to either lease or buy slots to facilitate their growth at London Heathrow.

Arik Air was successful in 2009 in applying for London Heathrow slots from the slot pool. ACL allocated a seven times daily slot pair for use on the Lagos-Heathrow route. Arik has operated these slots successfully since that time, and is still operating this route to date.

“In order to increase services at London Heathrow, in 2010 Arik Air entered into a commercial lease agreement to lease a slot pair to operate the Abuja-London service. In 2011 this lease agreement was terminated,” said an ACL spokesman. “Arik Air then applied to ACL for alternative slots from the slot pool for the Abuja service. Unfortunately, there were no suitable slots available from the pool on a seasonal basis near Arik Air’s requested times, or at any other feasible time of day for this route.”





*Based on personal insights and practical experience **Sudeep Ghai**, managing partner at airline consultancy Athena Aviation, offers a frank and controversial look at aviation in Africa which, he hopes, will stimulate debate and bring policymakers and airlines together and help the continent realise its true potential.*



# Why Africa keeps stalling on take off

**T**hese are heady days for African aviation. With just 2% of global air traffic, the African Continent has been a busy 'final frontier' over the last 18 months with at least seven new airlines commencing operations – FastJet in Tanzania; Starbow and Africa World in Ghana; Air Cote d'Ivoire on the Ivory Coast; Equatorial Congo Airlines in the Republic of Congo; and FlyGoAir and Skywise in South Africa.

This isn't altogether surprising as the impetus for growth appears, for a number of reasons, to be irresistible.

For example, a population of a billion people is currently served by airlines with just 650-odd aircraft; 55% of which are placed with top ten carriers across a fragmented landscape of 300 airlines.

Even the big carriers are not all that big – the combined revenue of the three leading carriers (SAA, Ethiopian and

Kenya Airways) at \$6 billion is just over one third of Emirates' annual turnover.

Internal demand is also growing – the United Nations expects half the population of Africa to live in urban cities by 2030 and several hundred million Africans will enter the ranks of the middle class over the next few decades.

International demand is increasingly diverse – according to Airbus there is a move away from dependence on Europe with traffic to and from the Middle East and Asia over the last decade having grown at 300% and 126% respectively.

It is also estimated that available seat kilometres (ASKs) should treble over the next two decades – both Boeing and Airbus expect the in-service fleet to double with 900 new aircraft to be delivered to the region, many of them wide-bodies.

And yet, when ideas meet reality in Africa,

Continued  
on Page 100

CONTINUED FROM PAGE 99

reality has a habit of coming up short. That is probably why, to put a different spin on the last point, Africa is expected to take just 900 aircraft in the next 20 years while Asia is expected to receive 12,000.

The reality that lays waste to well intentioned plans was something alluded to by Steve Ridgway, an accomplished industry veteran and the outgoing CEO of Virgin Atlantic who, when asked at the UK Aviation Club about his greatest regret, said: "I am personally very disappointed about Virgin Nigeria. I think we set up a great airline... but maybe were a bit naive. It could have been a really good opportunity."

Seasoned observers of African aviation fully understand that Governments and regulators have a pivotal bearing on the success or failure of airlines and the aviation sector.

In fact, the frustration most delegates expressed at the 2012 Aviation Outlook Africa Conference in Johannesburg last year – particularly those from African airlines – was the lack of Government policymakers in attendance and their lack of interest in understanding or promoting an industry that is vital to a nation's health.

I believe there are seven issues external to an airline that are holding back African aviation:

**1. Government greed in the pursuit of tax revenue is often to the detriment of air traffic growth.**

The landing charges and taxes levied in western Africa constrain demand, and constrained air traffic demand limits economic growth.

With passenger taxes, airport charges, security charges and landing fees coming in above \$60 in more than five markets in West Africa, these are three times the level charged by Singapore and one of the reasons why air travel has increasingly become the preserve of the wealthy rather than a simple, reliable, convenient way of getting from A to B that stimulates the creation of new aviation businesses and gets first-time travellers moving.

These artificial costs present a barrier to entry that makes low-cost carrier operations untenable.

Contrast this with the support provided to Air Arabia at Sharjah, where the Emir and the airport work hand-in-hand with the airline to support the growth of the region's premier hybrid low-cost carrier, and one key reason for the profitability and expansion of that airline is clear.

**2. Governments are too ready to meddle (badly) in business decisions and distort market economics.**

As the first privately-funded flag carrier in Africa, Virgin Nigeria was established in October 2004 and launched in June 2005, commencing operations with an A340-300 to London. This was meant to be a proud moment for Nigeria with a flag carrier that would introduce standards of safety and service that would make the airline the envy of Africa.

The key opportunity was to address the lack of good service in the African interior. The plan was, therefore, to start cautiously with A320 narrow-



Virgin Nigeria failure - naivity said CEO.

bodies focused on providing regular service on an intra-African basis.

The fact that the airline began with wide-body service to London was never intended; it was, in fact, the result of an ultimatum delivered less than two months before the start date.

Starting with a wide-body on a wet lease was bound to unbalance the operation and burn quickly through whatever funds the airline had raised. Not surprisingly, while Virgin Nigeria won a number of best new airline awards in 2006, in 2008 it also reported a \$41 million loss, equivalent to 80% of the airline's start-up capital.

Despite the very best efforts of the Virgin team, doing business in Nigeria was more complex than they had anticipated.

**3. Corruption is still a problem.**

Again, to take the Virgin Nigeria example, the arrangement struck between the Government and the airline allowed Virgin a special deal to operate domestic flights from the international terminal. This deal unravelled after President Olusegun Obasanjo's term of office ended.

When the airline protested, hammer-wielding men set about demolishing the Virgin Nigeria lounge, apparently because the contract with the builders to construct a new facility conflicted with a parallel deal struck with Virgin.

**4. Rational airlines are penalised by the absence of a level playing field.**

A level playing field means fuel prices are the same for everyone; market-based choices are available for ground operations, airport handling and maintenance and engineering; airport slots are allocated on an impartial basis (though home carriers may have an advantage); there is a transparent bidding process for route rights; fares are not regulated and public service obligation routes ideally do not exist, but if they do, they are borne equally.

Hence, the South African Government providing SAA with a ZAR five billion Government guarantee is understandably the source of some annoyance at Comair, which rightly sees this as supporting an unprofitable airline and entrenching inefficiencies at an airline that has not implemented any of its last nine

restructuring plans.

**5. The right kind of Government support is missing: enabling infrastructure is poor and needs to be upgraded.**

Far too many airlines in Africa have to cope with ramshackle airports and a limited choice of suppliers in the airport environment.

But enabling infrastructure is not simply airport-related. It also extends to ensuring regulatory frameworks are robust and transparent.

AOCs, for example, must be granted and maintained under strict conditions and safety and security have to be prioritised, because these things matter to the international customer.

Country safety standards should meet category 1 standards – if you are on a blacklist, get off it.

Airlines must also be IATA operational safety audit (IOSA)-compliant.

Broadband infrastructure must be widely available to enable e-commerce and website bookings. Banking systems and credit card payment must be available to enable ATM payment, online payment or mobile payment.

Contrast this with the support UAE carriers have been given by the Government and the airports to support passenger throughput, and the added benefit of building city infrastructure for commerce and leisure – this is the kind of positive support airlines in Africa sorely lack.

**6. Lack of transparency inhibits foreign direct investment.**

African airlines would receive more foreign direct investment and offers of strategic partnership if airlines and the aviation sector were run on a transparent basis – securing long-term funding and scarce access to capital means playing by international rules.

Annual reports prepared to international accounting standards, quarterly reporting of private, as well as state-run, companies would help investors understand the investment potential of Africa and focus attention on how to reduce cost and where revenue can be enhanced.

There are other, murkier issues to address too – the rule of law, for instance, and the willingness of new Governments to tear up agreements

struck with outgoing administrations.

That said, there is clear progress being made: in its latest 'ease of doing business rankings', the World Bank reported that from June 2011 to June last year, 28 of 46 Governments in sub-Saharan Africa implemented at least one regulatory reform, making it easier to do business. It singled out Rwanda for special mention as a country that had implemented 26 regulatory reforms since 2005.

#### 7. Markets in Africa need to be more open.

Without exception, most commentators have bemoaned the failure of African Governments to implement the Yamoussoukro decision of 1999, which called for open skies across the continent.

However, *carte blanche* on open skies isn't right for everyone.

While bilateral agreements should be revised to encourage traffic, entry barriers should be reduced, and co-operation extended to encourage foreign investors and know-how transfer, it does not follow that all African countries should immediately adopt open skies.

In a highly aggressive international aviation market, it is natural that some African Governments should take a period of time to nurse their local champions in a 'private sector monopoly' environment until they are ready to take on international competition. This is, arguably, the model that was adopted by the UAE and Qatar and has borne fruit after more than 20 years of careful planning and execution.

However, fear of competition does not excuse doing nothing. What is not acceptable is those circumstances where Governments protect carriers by failing to take hard decisions, holding off investors and carriers that are prepared to serve the market when a Government runs out of ideas, as appears to have been the case with Zambia.

If a Government needs help to take the decisions that will put its airlines on a strong footing, grow the market, create jobs for the local population, draw inward investment, build a corporate and SME passenger segment, and generate a host of indirect benefits for the economy through a multiplier effect, then it may have to turn to foreign competition to get the job done.

In all then, being open is important but being open while informed and in control is usually more prudent than simply throwing open the gates.

■ **Sudeep Ghai is the managing partner of Athena Aviation and specialises in airline strategy, start-up and commercial performance improvement. Ghai has almost 20 years' experience in the airline sector: after working in alliances at TWA and corporate strategy at British Airways, Ghai co-founded and took on the role of head of sales at Virgin Nigeria. His most recent airline role was as chief commercial officer of Sama, Saudi Arabia.**

## Ten top tips on running a smart business in Africa

*Investors are usually aware of the pitfalls of starting an airline but sometimes they come undone by not anticipating an event, or simply having an excess of confidence in their own plans. Here are some quick pointers for young airlines or aspiring new entrants:*

#### ■ **Validate your vision against true market demand.**

Far too often start-up entrants pick an aircraft and then find a market to serve rather than understanding the market need and the addressable market segments.

#### ■ **Ensure your business plan has multiple scenarios and you share the best case and worst case with your investors.**

Start-ups in emerging markets usually encounter unexpected surprises – perhaps the regulatory process is more complex than expected; you have to work out how to deal with a cash-based economy where people book last minute; your head office does not have the right IT cabling in place; what about oil prices, foreign exchange movements, competitor response etc?

All too often we encounter people that see only what they want to see rather than looking at the cold, hard facts of starting a business.

#### ■ **Check for cultural sensitivity.**

Not all cultures share the same sense of time. Some cultures have a different set of behaviours and protocols.

The point is an obvious one but a good many start-ups falter because new entrants don't understand how business gets done.

#### ■ **Start with deep pockets or think of a number and double it.**

It has frequently been said that the best way to become a millionaire in the airline business is to start with a billion.

Well, new ventures frequently need more money than they anticipate and whatever the business plan says you need, generally it is prudent to double it and make sure you can access these funds because some 80% of start-ups run aground within three years as they run out of cash.

#### ■ **Think smart.**

Much credit has to be given to FastJet for the groundwork it put into the venture. Securing a ready supply of A319s that were exiting EasyJet's fleet was a good move, as was starting with four AOCs for existing airlines right out of the blocks so that regulators and governments had limited grounds on which to delay progress to launch.

#### ■ **Pursue a level playing field (or think about walking away).**

You can't guarantee a level playing field but new start-up ventures do need to think about the consequences of entering into a fight for market share with a competitor that may be state-funded, inefficient and supported, placing downward pressure on yields in the market, and/or possibly benefitting from an artificially lower cost-base.

#### ■ **Pick a lively team.**

Investors tend to bring in their own people because they trust them – Hainan put some of its people into AWA and Virgin Atlantic seconded people into Virgin Nigeria. However, it makes sense to choose people that are fit for purpose. There is little point taking full service people to run a low-cost carrier, just as a European mature LCC is very different from a young LCC in Africa where economies are cash-based, credit card penetration is low and distribution requires working with traditional channels. The best answer is usually a blend of local and global, partly because it generates rich debate and argument, partly because no-one has a monopoly on truth.

#### ■ **Build a broad coalition.**

With the complexity of dealing with Governments in Africa, it is prudent to build an investor base that has influence – not just high-net-worth individuals but institutional funds or major corporates. This is where Lonrho's involvement in FastJet is a masterstroke, with a hundred years of experience as an industrial conglomerate and dealing with Governments across Africa.

#### ■ **Focus on the right metrics.**

Surprisingly, many new airline ventures or early-stage airlines have a poor grasp of airline economics and the right key performance indicators to measure performance and benchmark against other airlines. Getting this right and understanding what drives performance in the network, in operations, and in sales, for instance, is critical.

#### ■ **Be a commercial airline.**

Not unrelated to the previous point, one notable observation of many airlines in Africa is that commercial as a revenue and profit driving function is poorly understood. Some airlines are missing commercial functions, key positions are vacant, the wrong people have been placed in the role or the role has been labelled incorrectly.

SOMMAIRE

# Pourquoi l'Afrique connaît tant de problèmes au décollage



**Sudeep Ghai**, consultant pour Athena Aviation, nous donne sa vision du secteur du transport aérien en Afrique. Il compte amener décideurs et compagnies aériennes à travailler ensemble afin de mettre en exergue le véritable potentiel du continent africain.

Même avec 2% du trafic mondial, l'aviation africaine vit des moments mémorables. L'Afrique a connu le début des opérations de sept nouvelles compagnies aériennes au cours des 18 derniers mois : FastJet en Tanzanie; Starbow et Africa World au Ghana, Air Côte d'Ivoire, Equatorial Congo Airlines, et enfin FlyGoAir et Skywise en Afrique du Sud.

Un milliard de personnes en Afrique sont aujourd'hui desservies par seulement 650 avions.

Le chiffre d'affaires (CA) des trois principaux opérateurs en Afrique (SAA, Ethiopie et Kenya Airways) atteint 6 milliards de dollars soit un tiers du CA annuel d'Emirates.

L'Afrique devrait prendre livraison de 900 avions au cours des 20 prochaines années tandis que l'Asie devrait en recevoir 12 000.

Par comparaison, le trafic de l'Europe vers et depuis le Moyen-Orient et en Asie a augmenté respectivement de 300% et de 126% au cours de la dernière décennie.

Le nombre de sièges devrait ainsi tripler au cours des 20 prochaines années.

La demande interne en Afrique est en croissance. Les Nations unies prévoient que la moitié de la population africaine vivra dans les centres urbains en 2030 avec plusieurs centaines de millions d'Africains issues des classes moyennes.

Les gouvernements et les autorités de régulation ont bien sûr un rôle déterminant sur le succès ou l'échec des compagnies aériennes ainsi que le secteur de l'aviation.

Steve Ridgway, ancien directeur général de Virgin Atlantic, s'est exprimé à ce sujet : « Je suis personnellement très déçu pour Virgin Nigeria. Je pense que nous avons créé une grande compagnie aérienne mais nous avons peut-être été un peu naïfs. C'est une occasion manquée ».

Cette frustration a été largement exprimée par les participants de la dernière Aviation Outlook Africa Conference de 2012. En cause : le peu d'intérêt des décideurs gouvernementaux pour la promotion de l'aviation.



Selon Sudeep Ghai, il y a sept facteurs extérieurs à une compagnie qui bloquent la croissance de l'aviation africaine :

### 1. La cupidité des gouvernements dans l'application des taxes.

Les redevances et taxes perçues en Afrique de l'Ouest représentent un véritable frein à l'évolution du trafic et par conséquent à la croissance économique. L'ensemble des prélèvements (passager, aéroportuaire, garantie et de sécurité...) peuvent représenter plus de 60\$ en Afrique de l'Ouest. C'est trois fois plus qu'à Singapour. Ces coûts exorbitants freinent le développement des compagnies à bas coûts. Cela contraste l'exemple d'Air Arabia à Sharjah. L'émir a su travailler étroitement avec l'aéroport pour soutenir la croissance de la compagnie.

### 2. Les gouvernements faussent l'économie de marché.

Virgin Nigeria, une des premières compagnies privées en Afrique, a été créée en octobre 2004. Elle a lancé ses opérations en juin 2005 avec une liaison vers Londres avec un A340. Cela devait être un moment de fierté pour le Nigeria mais débiter les opérations sur Londres n'a jamais été prévu, faute d'un ultimatum 2 mois avant le début des opérations. Le plan initial était de commencer à établir avec

précaution des liaisons régulières africaines avec un Airbus A320. Virgin Nigeria a ainsi dilapidé ses propres fonds. Même si Virgin Nigeria a remporté des récompenses en 2006 et 2008, elle a enregistré une perte de 41 millions de dollars, ce qui équivaut à 80% du capital d'une compagnie aérienne. Faire des affaires au Nigeria était plus complexe que prévu.

### 3. La corruption demeure un problème.

L'exemple de Virgin Nigeria reste évocateur. Il y eu des accords conclus entre le gouvernement et la compagnie pour exploiter des vols intérieurs depuis l'aérogare internationale puis ils ont été caducs après le mandat du président Olusegun Obasanjo. Lorsque la compagnie a protesté, son salon au sein de l'aéroport a été saccagé, apparemment suite encore à des différends contrats avec plusieurs prestataires.

### 4. Les compagnies aériennes nationales sont pénalisées par l'absence de règles du jeu équitables.

Etre à pied d'égalité signifie que les prix du carburant sont les mêmes pour tout le monde. Des tarifs du marché sont disponibles pour les opérations au sol, la manutention ou la maintenance. Des créneaux aéroportuaires et itinéraires sont normalement alloués sur une base impartiale avec un processus transparent d'appel d'offres. Or, ce n'est pas souvent le cas.



**Sudeep Ghai, spécialisé dans la stratégie pour les compagnies aériennes, est un associé d'Athéna Aviation. Sa société assure la mise en place et l'amélioration des performances commerciales des compagnies. Sudeep Ghai possède près de vingt ans d'expérience dans le secteur du transport aérien. Après avoir travaillé à TWA puis British Airways, il a pris en main les ventes chez Virgin Nigeria. Il a été également responsable commercial de Sama, en Arabie Saoudite.**

#### 5. Les infrastructures sont défaillantes et les gouvernements absents.

Trop de compagnies aériennes en Afrique doivent faire face à des aéroports délabrés et un choix limité de fournisseurs pour les services aéroportuaires. Les infrastructures et les opérations doivent également respecter des cadres réglementaires (chapitre 1 des règles de l'IATA) et dans des conditions strictes et de sécurité, une prérogative pour les passagers internationaux.

#### 6. Le manque de transparence empêche les investissements étrangers directs.

Les compagnies aériennes africaines recevraient davantage d'investissements directs étrangers et des offres de partenariat si elles fonctionnaient sur une base transparente. Etablir des rapports annuels et trimestriels selon les normes comptables internationales aiderait les investisseurs à comprendre le potentiel d'investissement, la façon de réduire les coûts et d'engendrer les bénéfices.

Il faut également respecter la primauté du droit. Les nouveaux gouvernements ont tendance à annuler systématiquement les accords passés avec les administrations sortantes.

#### 7. L'Afrique a besoin d'ouvrir ses marchés.

La majorité des analystes ont déploré l'incapacité des gouvernements africains à mettre en œuvre la décision de Yamoussoukro de 1999, qui appelait à libéraliser le ciel à travers le continent. Beaucoup de pays africains n'y sont pas prêts.

Dans un marché très agressif, il est naturel que certains gouvernements africains souhaitent disposer de temps pour prendre soin de leurs compagnies nationales afin qu'elles soient prêtes à affronter la concurrence internationale.

C'est, sans doute, le modèle qui a été adopté par les Émirats Arabes Unis et le Qatar. La peur de la concurrence n'excuse cependant pas l'inaction. La concurrence peut également apporter une aide et devenir un facteur catalyseur. Être ouvert est important, mais autant l'être en étant maître de son destin.

## 10 conseils pour devenir une entreprise intelligente et prospère en Afrique

*Les investisseurs sont généralement conscients des embûches pour démarrer une compagnie aérienne. Voici quelques conseils rapides pour les jeunes compagnies aériennes ou les nouveaux entrants:*

#### ■ Valider votre vision.

Il est nécessaire de comprendre les besoins du marché avant de trouver un avion et d'opérer.

#### ■ Assurez-vous que votre "business plan" intègre de nombreux scénarii et que vous partagez le meilleur et le pire des cas avec vos investisseurs.

Les nouveaux entrants rencontrent généralement des surprises inattendues comme la complexité des processus réglementaires. Vous avez à superviser une gestion économique impliquant des réservations de dernière minute, le cours des prix du pétrole, la variation du taux de change et les concurrents. Les investisseurs ne voient que ce qu'ils veulent voir.

#### ■ Affinez votre sensibilité culturelle.

Chaque pays possède ses propres comportements et ses protocoles. Bon nombre de nouveaux entrepreneurs échouent car ils ne comprennent pas comment se font les affaires.

#### ■ Il faut savoir être petit avant de devenir grand.

On dit souvent que le meilleur moyen de devenir millionnaire dans le secteur du transport aérien est de commencer avec un milliard de dollars. Les nouvelles entreprises ont souvent besoin de plus d'argent que prévu. 80% des nouvelles compagnies renoncent dans les trois premières années car elles sont à court de liquidité.

#### ■ Pensez juste.

Il faut saluer la performance du lancement de FastJet. Bénéficiaire d'Airbus A319 de la flotte EasyJet était une bonne chose, convaincre le gouvernement et les autorités de régulation pour avoir lancé 4 AOC n'était pas une démarche facile.

#### ■ Délimiter votre terrain de jeu (et pensez également à en sortir).

De nouvelles compagnies doivent réfléchir aux conséquences de lutter uniquement pour des parts de marché avec son concurrent. Cela s'avère inefficace et exerce une pression sur le marché et sur votre yield.

#### ■ Choisissez une équipe diversifiée.

Les investisseurs ont tendance à choisir leurs propres hommes de confiance comme pour Virgin Nigeria. Il est inutile de s'entourer d'une équipe européenne pour opérer une compagnie en Afrique car les modèles économiques sont différents. Il faut mélanger les personnels locaux et internationaux. Cela engendre de riche débat et personne n'a le monopole de la vérité.

#### ■ Construire une large coalition.

Les relations avec les gouvernements en Afrique sont complexes. Il est prudent de fédérer des investisseurs qui ont une influence sur les décideurs, les fonds institutionnels ou de grandes entreprises. L'implication de Lonrho dans FastJet est un coup de maître, ce conglomérat bénéficie d'une expérience inégalée et des relations avec les gouvernements à travers l'Afrique.

#### ■ S'appuyer sur les bonnes statistiques.

De nombreux investisseurs ont une mauvaise vision de l'économie. Il n'ont pas également les bons indicateurs pour mesurer la performance des projets des nouvelles lignes aériennes ou d'un réseau. C'est pourtant essentiel.

#### ■ Soyez une compagnie commerciale.

De nombreuses compagnies aériennes en Afrique ont une politique commerciale floue qui nécessite des impératifs de revenus et de profits. Beaucoup de postes clés y sont d'ailleurs vacants.

# all in a day

PEOPLE / PERSONNES

## Peter de Waal

Marcella Nethersole speaks to the CEO of ExecuJet Aviation Nigeria.

### 1

■ What is your background in the aviation field?

After finishing my degree in cultural anthropology, I began my aviation career in Amsterdam with KLM Royal Dutch Airlines in 1974 in the cargo marketing department. I then trained in various areas of the business, including operations, logistics, passenger handling, finance, marketing and commercial to prepare for director roles abroad.

I worked for KLM in the Middle East, Dhahran, Bahrain, Jeddah, Ghana, Togo, the Sudan and finally as regional manager in Brazil. Then I was hired by Brazilian operator TAM Airlines to launch the Fokker 100 aircraft.

I set up my own aviation consultancy in Brazil and undertook several projects for national and regional airlines in all parts of the country, which extended from the creation of airlines to the reorganisation of MROs. Later on, I moved back to Africa to reorganise airlines in Angola and Mozambique and was involved the set-up of Air Uganda.

In 2012, I was selected by ExecuJet Aviation Group in South Africa to manage the new set-up of ExecuJet Aviation Nigeria.

### 2

■ What is a typical working day for you?

I get up every day at 6am and, after a good breakfast, I meet with the expat engineers who live in the same compound as me and we make the short journey to Murtala Mohammed Airport in Ikeja, near Lagos. We have a multicultural mix of people from different countries working at ExecuJet, which makes the exchange of experiences very interesting and dynamic.

At 8am we have our daily meeting with staff from all departments and we go through tasks and activities. I then walk round all departments, the hangar and the lounge, before spending half-an-hour with the senior accountant to get a full picture of the financial situation.

I hold several meetings with clients and potential clients, as well as service providers, in the course of the day. Since we are a start-up company, we deal with a lot of logistical issues to help make the workflow more efficient. Regular visits are made to the authorities to improve our relationship in the aviation circle.

The end of the day is never planned, but usually occurs between 6pm and 7pm.

### 3

■ What challenges have you faced in your role as CEO?

Structuring a homogenous group of engineers in a rather difficult and for most, strange, environment requires a continuous investment of energy. Maintaining a positive attitude is important to create a good atmosphere in the workplace and drive efficiency in production.

The balance between being happy at work and satisfied after work hours is extremely important, so management of the team is an on-going priority.

In Nigeria, you always need a plan B – and a plan C – to maintain a high level of quality for clients and the MRO. Cost control is a daily concern, particularly because of unexpected logistical issues. We suffer from power cuts at least 10 times a day and the cost of fuel for the generators is an additional, non-productive cost, which we try to keep to a minimum, although cuts are out of our control.

Communication is difficult, not least as the internet connection is often interrupted.

### 4

■ What are the prospects for business aviation in Africa?

Very positive. Purchase plans have moved up from 2011 levels and once again exceed the overall world average. We forecast purchases to rise by nearly 38% and the long distance jets are in particularly high demand.

Nigeria is considered as the leading country on the continent and this trend is set to continue for the next three years. There is a strong demand by jet owners for a highly qualified MRO, like ExecuJet, in this country.

The lack of efficient and quality commercial airlines stimulates the demand for business jets. The safety aspect is one of the most important drivers behind this demand.

### 5

■ Safety is a key issue. Do you see Africa embracing the idea of a safety culture, particularly in areas such as MRO?

Certainly. Following the tragic accidents involving some commercial airlines on the continent, the desire to create a safe aviation environment where MROs play an important role is growing.

The authorities consider MROs, with their well-trained professionals and well-equipped facilities, an excellent example. The process of adhering to the international required safety standards is slow but steady and awareness is growing day by day.

Training and repeated attention to safety aspects are taking effect in the African aviation world, although we know that there is still a long way to go. I believe that we, as a new MRO in west Africa, have a great responsibility in this respect.



# AFRICAN AEROSPACE

## FREE SUBSCRIPTION OFFER

Yes, I wish to receive *African Aerospace* magazine FREE of charge. Send back by:

OPTION 1 – Fax: +44 (0) 1702 53 3088

OPTION 2 – Scan & Email:  
subs@africanaerospace.aero

OPTION 3 – Post:  
Send card in envelope using appropriate postage to:  
Times Group  
3-4 Rumsey House, Locks Hill, Rochford  
Essex SS4 1BB, United Kingdom



**FREE SUBSCRIPTION OFFER**  
And for FREE daily news visit: [www.africanaerospace.aero](http://www.africanaerospace.aero)



# AFRICAN AEROSPACE

## FREE SUBSCRIPTION OFFER

Yes, I wish to receive *African Aerospace* magazine FREE of charge. Send back by:

OPTION 1 – Fax: +44 (0) 1702 53 3088

OPTION 2 – Scan & Email:  
subs@africanaerospace.aero

OPTION 3 – Post:  
Send card in envelope using appropriate postage to:  
Times Group  
3-4 Rumsey House, Locks Hill, Rochford  
Essex SS4 1BB, United Kingdom



To guarantee your **FREE** subscription and receive subsequent issues of **African Aerospace**, please complete the form – ticking the required boxes – and sign, date and return by email, post or fax.

Title: \_\_\_\_\_  
 First name: \_\_\_\_\_  
 Last name: \_\_\_\_\_  
 Job title: \_\_\_\_\_  
 Co./Org. name: \_\_\_\_\_  
 Type of Co/Org: \_\_\_\_\_  
 PO Box: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 \_\_\_\_\_  
 Town/City: \_\_\_\_\_  
 County/State: \_\_\_\_\_  
 Post/Zip Code: \_\_\_\_\_  
 County: \_\_\_\_\_  
 Telephone: \_\_\_\_\_  
 Facsimile: \_\_\_\_\_  
 Co./Org. Email: \_\_\_\_\_  
 Co./Org. Website: \_\_\_\_\_

Yes, I would like to start a **FREE** subscription  
 To **African Aerospace** magazine

Hard copy of magazine   
 Electronic (eMag) version of magazine   
 Weekly Newsletter   
 Circulation audit question: What is your  
 Month of birth? \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_

<b>PRIMARY POSITION / JOB FUNCTION</b>		
Government Official	<input type="checkbox"/>	Airport Construction/Maintenance <input type="checkbox"/>
Senior Military Staff	<input type="checkbox"/>	Finance/Broker/Charter Services <input type="checkbox"/>
Military Personnel	<input type="checkbox"/>	Maintenance/MRO <input type="checkbox"/>
Senior Executive (Chairman, CEO, MD)	<input type="checkbox"/>	Business Aviation/Support Services <input type="checkbox"/>
Other Corporate Officer (Director)	<input type="checkbox"/>	Transportation & Logistics <input type="checkbox"/>
Senior Management	<input type="checkbox"/>	Association <input type="checkbox"/>
Programme/Facilities Manager	<input type="checkbox"/>	Academic/Research Institution <input type="checkbox"/>
Administrator/Department Head	<input type="checkbox"/>	Consultancy <input type="checkbox"/>
Procurement Official	<input type="checkbox"/>	FBO <input type="checkbox"/>
Production/Quality Assurance	<input type="checkbox"/>	Training (Simulators) and <input type="checkbox"/>
Quality Controller	<input type="checkbox"/>	Recruitment Services <input type="checkbox"/>
Information Technology	<input type="checkbox"/>	Embassy/Consulate <input type="checkbox"/>
Mechanic	<input type="checkbox"/>	Other (please specify) _____ <input type="checkbox"/>
Maintenance Chief/Manager	<input type="checkbox"/>	
Pilot	<input type="checkbox"/>	<b>PRINCIPAL AREA OF ACTIVITY</b>
First Officer/Flight Crew	<input type="checkbox"/>	Civil Aviation <input type="checkbox"/>
Academic/Analyst/Researcher	<input type="checkbox"/>	Military Aviation <input type="checkbox"/>
Other (please specify) _____		Army/Land <input type="checkbox"/>
		Naval/Sea <input type="checkbox"/>
		Electronics/Command, Control & <input type="checkbox"/>
		Communications <input type="checkbox"/>
<b>TYPE OF ORGANISATION</b>		Security <input type="checkbox"/>
Government	<input type="checkbox"/>	Space <input type="checkbox"/>
Military	<input type="checkbox"/>	Helicopters/Rotorcraft <input type="checkbox"/>
OEM/Prime Contractor	<input type="checkbox"/>	Unmanned Systems <input type="checkbox"/>
Manufacturer	<input type="checkbox"/>	ICT <input type="checkbox"/>
Second/Third Tier subcontractor	<input type="checkbox"/>	Media <input type="checkbox"/>
Security Firm	<input type="checkbox"/>	Training/Recruitment <input type="checkbox"/>
Airline	<input type="checkbox"/>	Other (please specify) _____ <input type="checkbox"/>
Airport	<input type="checkbox"/>	

To guarantee your **FREE** subscription and receive subsequent issues of **African Aerospace**, please complete the form – ticking the required boxes – and sign, date and return by email, post or fax.

Title: \_\_\_\_\_  
 First name: \_\_\_\_\_  
 Last name: \_\_\_\_\_  
 Job title: \_\_\_\_\_  
 Co./Org. name: \_\_\_\_\_  
 Type of Co/Org: \_\_\_\_\_  
 PO Box: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 \_\_\_\_\_  
 Town/City: \_\_\_\_\_  
 County/State: \_\_\_\_\_  
 Post/Zip Code: \_\_\_\_\_  
 County: \_\_\_\_\_  
 Telephone: \_\_\_\_\_  
 Facsimile: \_\_\_\_\_  
 Co./Org. Email: \_\_\_\_\_  
 Co./Org. Website: \_\_\_\_\_

Yes, I would like to start a **FREE** subscription  
 To **African Aerospace** magazine

Hard copy of magazine   
 Electronic (eMag) version of magazine   
 Weekly Newsletter   
 Circulation audit question: What is your  
 Month of birth? \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_

<b>PRIMARY POSITION / JOB FUNCTION</b>		
Government Official	<input type="checkbox"/>	Airport Construction/Maintenance <input type="checkbox"/>
Senior Military Staff	<input type="checkbox"/>	Finance/Broker/Charter Services <input type="checkbox"/>
Military Personnel	<input type="checkbox"/>	Maintenance/MRO <input type="checkbox"/>
Senior Executive (Chairman, CEO, MD)	<input type="checkbox"/>	Business Aviation/Support Services <input type="checkbox"/>
Other Corporate Officer (Director)	<input type="checkbox"/>	Transportation & Logistics <input type="checkbox"/>
Senior Management	<input type="checkbox"/>	Association <input type="checkbox"/>
Programme/Facilities Manager	<input type="checkbox"/>	Academic/Research Institution <input type="checkbox"/>
Administrator/Department Head	<input type="checkbox"/>	Consultancy <input type="checkbox"/>
Procurement Official	<input type="checkbox"/>	FBO <input type="checkbox"/>
Production/Quality Assurance	<input type="checkbox"/>	Training (Simulators) and <input type="checkbox"/>
Quality Controller	<input type="checkbox"/>	Recruitment Services <input type="checkbox"/>
Information Technology	<input type="checkbox"/>	Embassy/Consulate <input type="checkbox"/>
Mechanic	<input type="checkbox"/>	Other (please specify) _____ <input type="checkbox"/>
Maintenance Chief/Manager	<input type="checkbox"/>	
Pilot	<input type="checkbox"/>	<b>PRINCIPAL AREA OF ACTIVITY</b>
First Officer/Flight Crew	<input type="checkbox"/>	Civil Aviation <input type="checkbox"/>
Academic/Analyst/Researcher	<input type="checkbox"/>	Military Aviation <input type="checkbox"/>
Other (please specify) _____		Army/Land <input type="checkbox"/>
		Naval/Sea <input type="checkbox"/>
		Electronics/Command, Control & <input type="checkbox"/>
		Communications <input type="checkbox"/>
<b>TYPE OF ORGANISATION</b>		Security <input type="checkbox"/>
Government	<input type="checkbox"/>	Space <input type="checkbox"/>
Military	<input type="checkbox"/>	Helicopters/Rotorcraft <input type="checkbox"/>
OEM/Prime Contractor	<input type="checkbox"/>	Unmanned Systems <input type="checkbox"/>
Manufacturer	<input type="checkbox"/>	ICT <input type="checkbox"/>
Second/Third Tier subcontractor	<input type="checkbox"/>	Media <input type="checkbox"/>
Security Firm	<input type="checkbox"/>	Training/Recruitment <input type="checkbox"/>
Airline	<input type="checkbox"/>	Other (please specify) _____ <input type="checkbox"/>
Airport	<input type="checkbox"/>	

**FREE SUBSCRIPTION OFFER**  
 And for **FREE** daily news visit: [www.africanaerospace.aero](http://www.africanaerospace.aero)





# Go Where Others Can't.

## INTRODUCING THE **FALCON 2000LXS**

It is the ultimate combination of nonstop range, airfield agility and widebody cabin. No other 4,000 nm aircraft can deliver so many airports in such quiet comfort. Thank optimized aerodynamics, new inboard slats and highly advanced acoustics. Thank Falcon DNA. And go where others can't.

DNA. It Matters.

Find out why. Scan the code.  
Or visit [falconjet.com/2000LXS](http://falconjet.com/2000LXS)



**DASSAULT**  
**FALCON**

ENGINEERED WITH PASSION®



***The leading complete aviation maintenance organization in the Middle East...***



Saudia Aerospace  
Engineering Industries **saei**

[www.saudiamro.com](http://www.saudiamro.com)

+966 2 2729491

[sales.marketing@saudiamro.com](mailto:sales.marketing@saudiamro.com)