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THE MAGAZINE FOR AEROSPACE PROFESSIONALS IN AFRICA

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Africa's big players must ride the wave

So the boom has started in Africa, or has it? It seems some places, at least, are missing the wave and not gaining any economic traction from the growing hype – not least in air transport.

Compare, for example, a city like Zambian capital Lusaka, a real boom town, with Malawi capital Lilongwe, a sleepy backwater with little new of note.

However, some of those forging ahead are looking to bring others with them; all credit to Ethiopian Airlines for helping fill a void in Malawi, to establish and nurture Malawian Airlines.

If Africa's aerospace industry is going to grow and compete on the world stage on a broad base, a lot more is going to have to happen.

An upsurge in airline activity is just that – it does not, by itself, have any effect on the industrial base. Yet, if aircraft are being purchased and operated around Africa, that provides opportunities for OEMs to establish (or help to establish) a fledgling industrial base.

But how much is that happening?

On the defence side, all the talk in India (as has been the case for decades) is of offsets – what can India get in return in terms of OEM investment and assistance, and work for local companies. Yet in Africa we hear almost nothing of governments pushing for this, working with wealthier states and their leading OEMs to help their cause.

There may be 'backhanders' to procurement officials and politicians to get deals in some cases, (and the SA government is trying to stamp this out) but an offset to the country would be of much more



help, as the wealth would trickle down rather than disappearing into Swiss bank accounts.

A visit to South Africa recently showed that the most advanced country in Africa has a massive issue with corruption, if one is to believe the newspapers there.

Unless this engine of the African economy can be restarted, the trickle effect is going to have to happen from the likes of Ethiopian. Who'd ever have thought the prodigal son would come from the north?

Ian Sheppard
Editor

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COVER: Dassault Rafale has been ordered by Egypt.

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Muammer Tükenmez, one of the program participants expresses his feelings after the program as "I never thought that I would overcome my fear of flying I have suffered for 56 years only in two days but I did it".

Turkish Aviation Academy invites the ones who cannot fly because of fear of flying get over their fear through the two-day program of "Conquer your Fear of Flying."

The program, performed by trainers and psychologists specialized in the fields of pilotage, aircraft maintenance and cabin which are within the body of the academy is carried out every month with the increasing demand in recent years. Maximum ten participants are included in the program consisting of the combination of homogenous groups so that it can be as efficient and effective as possible. Each expert, who actively contributed to the program, has an invaluable experience in their fields and they also bear the educator's qualifications. The participants are interviewed before the program, and they pass through the anxiety test and the analysis of psychological situation. During the program in the classroom, the captain and technical trainer explains the following subjects based on some concrete data; aircraft structures and systems, maintenance processes, turbulence, the effects of weather events, and why the aircraft is the safest mean of transportation. Then psychologists teach some methods on how to overcome their fear of flying. After having performed all technic-theoretic and psycho-theoretic lectures and applications, a virtual flight in the cabin simulator is performed. Thus, the participants experience all conditions of the actual flight. A round-trip is organized to a city determined beforehand by participation of all team members in the second day of the program. Thus the concerns and the root causes of these concerns our participants experience are identified, and the ways of solutions for them are offered. Concerns or fears emerge from various reasons. Some people have fear of flying due to lack of technical information about the aircraft and flight while psychological reasons lie under others' concerns. The technical instructor, cabin trainer and the captain, who are together with the participants during the program, instill confidence in the participants by trying to remove the lack of technical knowledge. The psychologist strives to eliminate psychological concerns through the interviews he/she conducts with the participants before and during the program. All of these components ensure to remove the question marks engaging participants' minds, and enable the participants to get rid of the related problems. One of the most important reasons for the success of the program, which is over 90%, is that, participants are followed by the team after the program as well. Participants have free participation right to attend the programs scheduled in the following months if they need.



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'Terrible teens' for Africa?

African airlines are believed to be at the front of the queue to purchase 10 of the first manufactured models of the Boeing 787 Dreamliner – dubbed “terrible teens” for their assembly struggles and their places near the start of the production run. They are currently parked at Boeing’s Everitt factory near Seattle.

The original customers were said to have balked because the aircraft were too heavy, limiting their range. But the 787s are expected to be sold for around half the cost of the catalogue price of \$218 million and, with the reduced range of 6500nm not being an issue for airlines such as Ethiopian and Air Austral, the ‘teens’ could be heading to Africa.

Paramount collaboration

South Africa’s Paramount Group has signed an MoU with Motor Sich JSC of the Ukraine to collaborate in



The eight-seater Sikorsky S-76D makes its debut on an African stage.

Sikorsky’s Titanic milestone in Africa

South Africa’s Titan Helicopters has taken delivery of the first Sikorsky S-76D helicopter to operate in Africa.

The aircraft will be utilised in offshore service and has been leased from the Milestone Aviation Group. Titan’s chief operating officer, Jide Adebayo, said the George-based company was excited to be the first operator to introduce the aircraft on

the continent but predicted that many others will follow.

Milestone Aviation Group was created in August 2010 by Richard Santulli, the founder of NetJets, and focuses purely on helicopter leasing.

Titan’s fleet currently features Sikorsky S-76 A++, S-76C and S-76C+ helicopters as well as the S-61N aircraft, B212s, Mi-8 and Ka32.

the production and modernisation of helicopters and aviation engineering components.

The signing, which was witnessed by Ukrainian President Petro Poroshenko, commits the two companies to exploring the opportunity of transferring the rotary platform technologies.

Earth calling

Africa’s telecommunication is to improve with CETel and satellite operator Arabsat stepping into the extended C-band with their jointly built Earth station, offering unprecedented business expansion possibilities with the launch of teleport facilities,

network and broadband services as well as solution design across the whole continent via Arabsat’s 5C satellite.

Growing the Rotary club

Africa and the Middle East are leading all of the other global regions when it comes to new helicopter purchase rates, with up to 32% of respondent fleets slated for turnover with a new helicopter replacement or addition according to Honeywell Aerospace in its 17th annual turbine-powered civil helicopter purchasing outlook.

Angolan first for ExecuJet

ExecuJet Aviation Group is expanding the company’s managed fleet in Africa with the addition of a Falcon 900B, Hawker 800 and Bombardier Challenger 604.

The newly refurbished Falcon 900B will be based in Luanda, Angola, a first for ExecuJet, while the other two aircraft will be located at Lanseria International Airport,

Johannesburg. The Hawker 800 and Bombardier Challenger 604 aircraft will both be available for charter.

Hurghada gets the total package

Hurghada International Airport is transforming the passenger experience at its new terminal, with airport solutions from air transport IT specialist, SITA.

The Egyptian airport is using SITA’s passenger-processing platform and airport operations systems, with new self-service options, the latest baggage management solutions and shorter queues.

The new solutions are also helping the airport improve operational efficiency by integrating systems and providing a single control point.

Highly freighted

OR Tambo International Airport walked away with the title “African Airport of the year” at an awards ceremony held as part of Air Cargo Africa 2015 in Ekurhuleni, Johannesburg in February.

The first African B787 simulator arrives in Addis.



Africa’s first Dreamliner simulator

Ethiopian Airlines is now operating the first ever B-787 Dreamliner full-flight simulator in Africa.

The installation and build-up of the simulator was completed at Ethiopian’s main hub in Addis Ababa and the first pilot training using the simulator began in March.

Ethiopian was the first airline in the world,

outside Japan, to receive and operate the B-787 Dreamliner in August 2012. Currently, the airline is the largest operator of the aircraft in Africa.

With the installation of the B-787 flight simulator, Ethiopian will be the first in Africa to give full-flight simulator training for pilots on the type.

Falcon flies further

Abu Dhabi-headquartered Falcon Aviation Services is further penetrating the developing African aviation market with the signing of a wet lease of a NextGen Bombardier Dash 8 Q400 turbo-prop, with Ghana's domestic private carrier Starbow. FAS has now set up a line station in the Ghanaian capital, Accra.

Madagascar ATRs

Air Madagascar is to receive two new ATR 72-600s, bringing the number of ATRs operated by the airline to five. The carrier is also adding a Boeing 737-700 to its fleet.

French quartet

AgustaWestland has announced four new orders for the AW139 in west French-speaking Africa, with four undisclosed government customers choosing the intermediate helicopter model for passenger transport roles.

A touch of Finesse

Air Namibia has selected Accelya's cost-management (FinesseCost) and flight-profitability (FinesseFPS) solutions of the FinesseSuite. The scope of services include automated processing of clearing house and non-clearing house invoices, accruals, direct operating cost verification, workflow, accounting integration with enterprise resource planning (ERP), and a portal that will be used by the airline's suppliers to input their invoices.

Turkish capital move

Turkish Airlines has added Abuja, Nigeria, as a new destination. The Nigerian capital became the 38th African destination for the airline when it began services on March 3.



AIFA now has bases at George, Oudtshoorn (above) and Beaufort West, where the company has built a new runway and control tower.

A Seminole moment for AIFA

South Africa's AVIC International Flight Training Academy (AIFA) at George has been stepping up its fleet as it welcomes an increasingly international cohort of students from Asia and across Africa. AIFA, which claims to be the biggest training school in Africa and is aiming to be the biggest in the world, plans to train 1,000 pilots for the Chinese market annually, 40% of the total demand there.

The academy has acquired seven Piper PA44-180 Seminoles with glass cockpit configuration, to enhance its multi-engine flight-training programme. (It also has three King Airs).

In January, AIFA took delivery of eight new Cessna 172s at its Lanseria facility. This brings the number of new 172s delivered up to 19.



Steven Verhasselt, director, Liege Airport, joins Astral CEO Sanjeev Gadhia celebrating the Africa all-cargo carrier award.

Astral stars in 15th heaven

Astral Aviation kicked off its 15th anniversary celebrations with a high. Having ordered two Boeing 737-400 freighters, it added to the party spirit by winning the title of Africa's all-cargo carrier of the year at the Air Cargo Africa event in Johannesburg in February.

The dedicated cargo carrier began operations at the start of the millennium from a base at Jomo Kenyatta Airport. Today, it operates a fleet of seven aircraft, including Cessna Caravan, Fokker 27, DC9, B727 and the flagship B747-400.

It is the largest cargo airline in terms of fleet size and links more than 50 destinations in Africa with Liege, Belgium through its Nairobi hub.

This month the airline will acquire the first of the two B737-400 freighters, with 20tonne capacity, which will ply routes such as Kinshasa, Brazzaville, Lusaka, and Lubumbashi.

Containing excitement

Jettainer, the German company that supplies outsourced management of unit load devices (ULD) – the pallets or containers used to load luggage, freight, and mail on aircraft – has taken over the supervision of containers for Equatorial Congo Airlines (ECAir).

Mauritius tops list

Mauritius Airport was rated the best overall in Africa by ACI – the trade association for the airport industry worldwide.

For the annual survey of airport service quality (ASQ) ACI studied 34 key service areas and included eight major categories such as access, check-in, security, airport facilities, food and beverage, retail and more.

It rated Mauritius as top with Durban second, Cape Town third, Johannesburg fourth and Nairobi fifth.

Another African airport to make the finals was Upington Airport in the Northern Cape region of South Africa, which won

the best small airport category.

Mauritius was also an award winner in the best-improved category.

AfBAA for Addis

The African Business Aviation Association (AfBAA) has announced the confirmed dates for its next annual symposium. The event will take place on September 24 and 25 this year at the Sheraton Hotel, Addis Ababa.

Ethiopian aid

Ethiopian Airlines joined with Boeing and three separate non-profit organisations to deliver more than 4,000lbs (1,814kg) of medical supplies and equipment for charities and hospitals in Ethiopia and Somalia.

The deliveries, carried on the ferry flight of Ethiopian's newest 787 Dreamliner, were made to a number of medical institutions via Vital Voices Global Partnership, Horn of Africa Neonatal Development Services (HANDS) and Seattle Alliance Outreach (SAO).



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Finding funding

Air Traffic and Navigation Services (ATNS), the South African state-owned company (SOC), has contributed to the refurbishing of a rural school's library by providing much-needed information and communications technology (ICT) infrastructure, which includes broadband internet connectivity and end-user equipment.

Zimbabwe's crisis

The board chairman for Zimbabwe's national airline, Air Zimbabwe, says the company is choking in debts and needs \$368 million to recapitalise operations and undertake compliance initiatives that will pave the way for it to be re-admitted to the International Air Transport Association (IATA).

MRO double

Two US businesses have created an MRO alliance to develop their business further into Africa. Summit Aerospace and American General Supplies (AGS) say their combined financial strength and capabilities would improve their offer to African airlines, far more than going alone.



Ascenso Adapts for pilot assessment

South African aviation recruitment company, Ascenso, has tied up with Symbiotics – part of the Resource Group – to provide a suite of computerised applicant screening tools, known as Adapt, which will be used across the region. The Adapt suite is said to offer a blended

assessment of the skills of the pilot alongside the impact of behaviour, culture, personality and technology on them. The tool is unique in that it blends aviation and performance psychology with psychometrics and simulation.

Duty-bound to cut

Proflight Zambia has welcomed the removal of 5% customs duty on aviation fuel and passed this on to passengers by cutting fares across the board. The airline announced a ticket price drop by 5% following the Government's elimination of duty that came into effect on January 1 this year.

Nigerian warning

Nigeria's Civil Aviation Authority (NCAA) has issued

warning letters to a number of its domestic airlines following an audit, which revealed severe breaches of safety regulations.

Arik in safe hands

Arik Air was in award-winning form at the 11th Security Watch Africa Awards, Lecture and Exhibition held in Dubai.

Managing director Chris Ndulue was named the 'most outstanding aviation personality' in west Africa, while other awards

included 'best aviation security manager in west Africa, won by the airline's chief security officer, Francis Okafor, and the 'most innovative aviation communicator' in west Africa, which went to PR and communications manager, Adebajji Ola.

Ethiopian write off

An Ethiopian Airlines 737 freighter was an insurance write-off after skidding off the runway at Accra in January. The aircraft,

registered as ET-AQV (msn 28493, ex N493AC/OO-VES), was operating for Asky Airlines and was on a flight from Lome to Accra.

Reports from the airline suggest that tyres had blown on landing. Ethiopian Airlines said the crew "safely disembarked the aircraft" after it had "skidded off the runway with flat tyres".

Oiling up in Nampula

International aviation fuel products and service supplier, Air BP, continues to expand its footprint in Africa with the installation of a new 30,000 litre Avgas refuelling tank at Nampula International Airport (APL/FQNP), Mozambique.

New Cargo Airport

The Coega Development Corporation (CDC) on South Africa's Eastern Cape plans an Environmental Impact Assessment (EIA) study to assess the feasibility of establishing a cargo airport and an aeronautical and aerospace industrial cluster in the Coega Industrial Development Zone (IDZ), located in Nelson Mandela Bay, South Africa - along the Indian Ocean Coast.

Dream on

Royal Air Maroc is now operating its first 787 Dreamliner.



The AW139 for Nigeria marks a debut deal for Waypoint in west Africa.

Caverton 'first' for Waypoint

Nigeria's Caverton Helicopters has completed a deal with Waypoint Leasing for a new AgustaWestland AW139 and a Bell 412EP – the first such deal for the Irish lessor in west Africa. The aircraft will operate supporting onshore and offshore oil and gas operations.

"We are confident that this marks the beginning of a long and productive partnership with Caverton," said Waypoint CEO Ed Washecka.

Caverton operates out of a 10,000sqm flight facility at the Murtala Muhammad International Airport in Lagos. The company also owns and operates out of several purpose-built facilities in Victoria Island (The Ozumba Heliport), Port Harcourt (NAF Base), Warri and Cameroon.

Caverton previously operated six AW139s and was appointed an AgustaWestland authorised service centre for the intermediate twin helicopter in Nigeria. The Lagos service centre provides maintenance and repair services and an extensive spare parts inventory for the type across the region.

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Madrid - Canary Islands (Near The West Coast Of Africa)

Spain

SAA still operates a few Boeing 737 Classics but otherwise has switched to Airbus A319s/A320s.



STRUGGLING FOR AIR...

The embattled South African Airways continues to lose money.

Mark Mansfield looks at what's being done to turn the situation around.

«Au bord de l'asphyxie» –
Page 16

South African Airways (SAA) has reported an operational loss of 374 million South African Rand (\$31.8 million) in the financial year 2013/14.

It compares with a loss of R425 million (\$36.2 million) in 2012/13.

The company reported that cost containment during the financial year yielded sustainable savings of R453 million (\$38.6 million). It also reduced its cost per available seat kilometre (CASK) by 5% from 7.05 US cents to 6.19 US cents.

The good news is that SAA Group's domestic operations recorded 10% growth – a profit contribution up from R722 million (\$61.6 million) to R791 million (\$67.5 million). And regionally, African routes performed positively with a 17% increase from R648 million (\$55.2 million) to R761 million (\$64.9 million).

However, losses on the airline's long-haul

intercontinental operations also went up – from R1.3 billion (\$110 million) in 2012/13 to R1.6 billion (\$136.5 million) in 2013/2014.

The volatility of the Rand saw a decline in value of more than 34% during the 2013/14 financial year, which placed the airline at a disadvantage as nearly 60% of all input costs were priced in foreign currency.

The disparity, when measured against international competitors, placed the business in a challenging competitive position.

During the period, SAA realised net hedging gains of R76 million (\$6.5 million) compared to hedging losses of R84 million (\$7.2 million) incurred in the previous financial year.

A critical element of SAA's long-term turnaround strategy (LTTS) is the future replacement of its existing wide-body fleet with new generation, more fuel-efficient

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Top: A Bombardier Q400 of SA Express. Above: Boeing 737-800 of SA low-cost subsidiary Mango (both at Johannesburg's O.R. Tambo International Airport).

CONTINUED FROM PAGE 15

twin-engine aircraft. In this regard, the seven wide-body aircraft owned by SAA had to be revalued in terms of international financial reporting standards (IFRS) to take into account their anticipated remaining useful life. This revaluation resulted in a write down of R782 million (\$66.6 million), as well as an additional R192 million (\$ 16.3 million) on related spares and inventory.

Further costs were recognised relating to the delivery of four new A320 aircraft. These form part of a legacy agreement for 20 aircraft, dating from 2002, which was renegotiated in 2009. However, the contract provides for annual escalations that resulted in the purchase price exceeding the market value at date of delivery – thus leading to a further write down of R369 million (\$31.4 million).

Similar impairments are expected on future deliveries on this contract and SAA's remaining capital commitment for these purchases is R822 million (\$70 million).

SAA has been reliant on guarantees from its shareholder (the South African Government) for several years and the delay in the release of its financial statement for 2013/14 was directly related to the continued weakness of the balance sheet and that fact that the company was technically insolvent.

Government guarantees of

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on Page 19

SOMMAIRE

Au bord de l'asphyxie

South African Airways continue à perdre de l'argent.

La compagnie a en effet enregistré une perte opérationnelle de 374 millions de rand. Mark Mansfield mène l'enquête.

En dépit d'une lourde perte, le réseau domestique de South African Airways (SAA) demeure rentable avec une croissance de 10%. À l'échelle régionale, le bilan sur les routes africaines est positif avec une augmentation de 17%. C'est sur les opérations long-courriers que les pertes de SAA se sont creusées pour atteindre 1,6 milliards de rand.

Comment expliquer cette situation ? Tout d'abord, par la volatilité du rand. Sa valeur a chuté de plus de 34% au cours du dernier exercice financier impactant les compagnies aériennes locales.

□□□□□

SAA a été fortement affectée car environ 60% de ses coûts sont en devises étrangères et 40% de ses revenus dépendent du taux de change. Cette disparité l'a placée dans une position concurrentielle difficile.

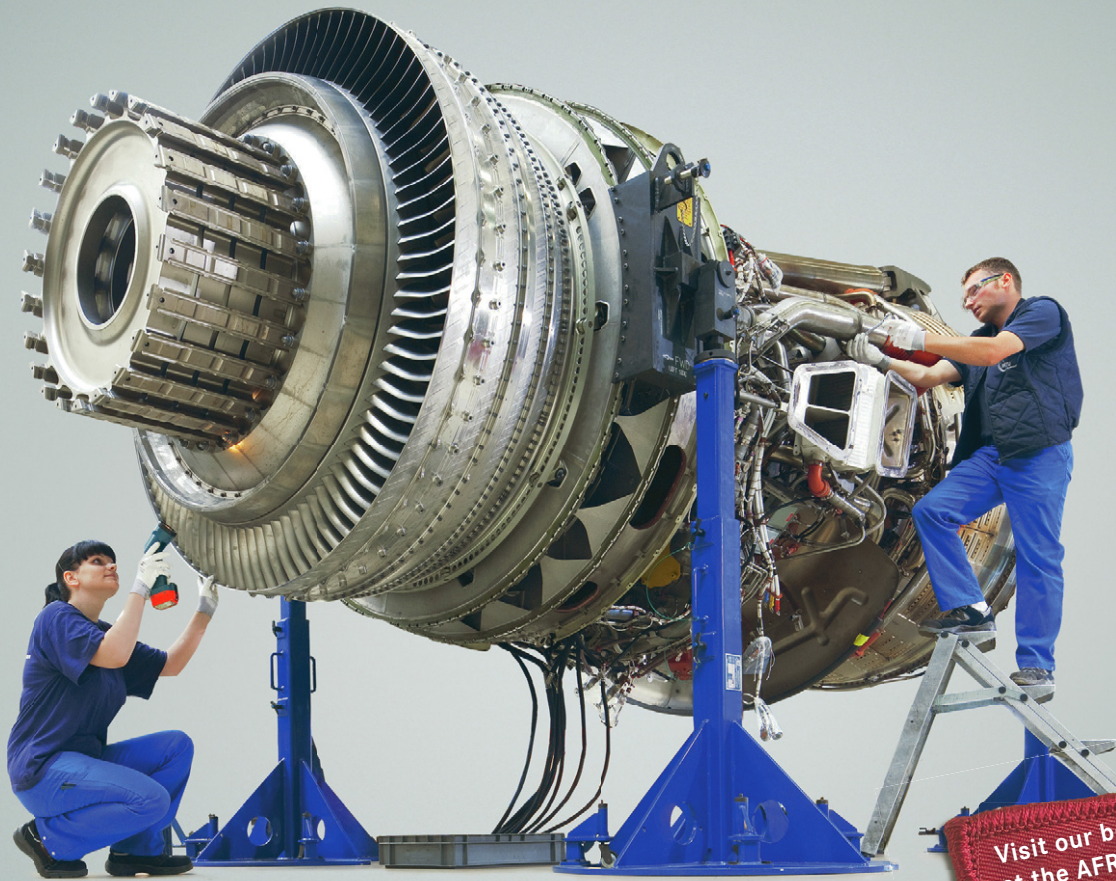
La performance de ses avions long-courriers a également une incidence sur les coûts. Leur remplacement par des avions de la nouvelle

génération est une composante essentielle de la stratégie de redressement de la compagnie. D'autres problèmes contractuels sont également apparus concernant la livraison de quatre nouveaux A320.

SAA a été dépendante des garanties de son actionnaire (le gouvernement sud-africain) pendant plusieurs années.

Suite aux retards dans la publication de son bilan financier pour l'exercice 2013/14, la compagnie aérienne a été déclarée comme étant techniquement insolvable.

En quête de garanties, SAA a été contrainte de revoir en urgence sa stratégie de redressement à long terme et mettre en place un plan d'action de 90 jours afin de retrouver une certaine stabilité. Parmi les grandes lignes de ce plan : une optimisation de son réseau à l'international (introduction de vols entre Johannesburg et Abu Dhabi et partenariat élargi avec Air China), une augmentation de ses fréquences régionales, une révision de l'ensemble de ses contrats et de sa gouvernance de même que le gel de ses effectifs.

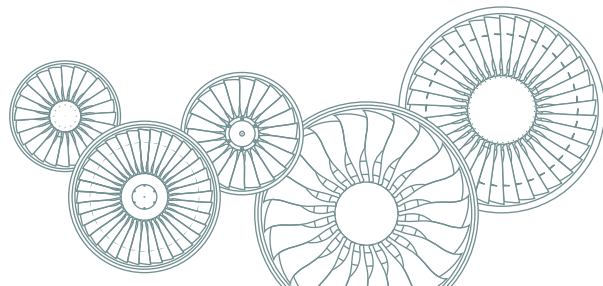


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An immediate freeze on headcount has been implemented with a moratorium on any new appointments.

SA Airlink Embraer EMB-145 refuels at George Airport.

CONTINUED FROM PAGE 16

R7.9 billion (\$673 million) were topped up to a total of R14.3 billion (\$1.21 billion) with an additional R6.4 billion (\$545 million) forthcoming in December 2014.

It is the intent of the board (reconstituted in October 2014) and SAA management to reduce the reliance on guarantees and return the business to relative stability. However, the lack of implementation of several critical aspects of the LTTS during the latter half of 2013/14 resulted in the South African Government's further guarantee to ensure SAA continued as a going concern over the short term.

A full review of the LTTS is now under way to ensure revalidation in line with the current needs of the business, given SAA's failure to adequately implement the plan. The shareholder and newly constituted board have made it clear to management that a 90-day action plan's primary outcome must be the resumption of LTTS implementation.

The plan period ends on March 24, and then implementation of a revalidated LTTS will be resumed, albeit trailing 16 months behind schedule.

Under the 90-day plan, guided by unimplemented aspects of the LTTS, SAA must reconfigure loss-making aspects of its intercontinental network, as well as implementing mitigating actions to minimise customer inconvenience along with considered potential commercial gains.

SAA will optimise its intercontinental network with network expansion through code sharing, which is already growing the airline's network

The introduction of flights between

Johannesburg and Abu Dhabi (announced in December 2014) should mean substantial SAA-coded network endpoint growth in the Asia-Pacific region through a deepened commercial relationship with Etihad Airways.

The route is expected to attract inbound traffic from several destinations within its geographic reach, while also adding a large number of additional outbound destinations via the Middle-Eastern hub.



SAA has announced an expanded partnership with Air China (early December 2014), opening up a host of new possibilities to improve the connectivity between southern Africa and China

It has also increased regional frequencies between Johannesburg and several key, high-volume regional destinations, including Mauritius, Zambia, Zimbabwe and Mozambique, among others

A full contract review is under way with onerous agreements being examined. It includes all supplier agreements, including a review of aircraft leasing contractual positions

SAA procurement has been mandated to realise a further 10-15% benefit on existing and new supplier agreements.

An immediate freeze on headcount has been implemented with a moratorium on any new appointments.

Members of the executive management team tasked to manage the full implementation of the 90-day plan, meet twice weekly to review progress and a weekly oversight engagement is held with a national treasury technical team.

Through the newly issued guarantee, SAA has retained its going-concern status and ensured short-term solvency and liquidity challenges. Full implementation of the action plan, leading into LTTS implementation, should return the company to relative stability and ultimately sustainability in the medium to long term.

While it has been signalled that the government would contemplate a strategic equity partner for SAA, the notion is in its infancy and SAA management will present several future-funding options to the board and, in turn, the government as the action plan is achieved.

An immediate review of all contractual burdens and governance implications or defects within the legal framework of the company is well under way.

This includes the review of onerous agreements, what corrections can be made, and other matters that affect the framing of remedial activity.

The examination of all assets in the business and its reorganisation is on track.

SAA has also begun the process of re-engineering its internal and external communication efforts to effectively communicate with all direct and indirect stakeholders and South African citizens.

Is the Union ready to reach for a United sky?

Liberalisation of traffic rights has a track record of improving the aviation industry and boosting national economies but Africa has been slow to make the change.

Now, reports

Tom Pleasant, the African Union is fully behind the plan and African aviation is about to change radically.

More than 25 years after the Yamoussoukro Declaration (YD), Africa looks like it will finally liberalise its skies. Transport ministers have backed the African Union Commission's proposal to set up a single African air transport market by 2017.

Dipuo Peters, South Africa's Minister of Transport, hosted the meeting in Pretoria in January. Speaking after the meeting, she said: "Fostering the African aviation industry is one of the driving forces of regional integration on the continent. Better connected African countries and regions, through a viable air transport industry, [will] boost intra-African business, trade and tourism."

The work of the African Civil Aviation Commission (AFCAC) made the agreement possible through its work laying down relevant operation processes, such as passenger-rights rules and competition and dispute-resolution mechanisms.



Iyabo Sosina, secretary general of AFCAC, said the ministers' agreement would remove all the "stumbling blocks" to true liberalisation. "[Once that happens,] the African Union (AU) will hand over the documents to us and, as its executing agency, we will be able to use them to ensure the implementation is done."

The decision was helped by several recent examples that showed the advantages to liberalisation, notably successful test cases in Ethiopia, South Africa, Kenya, Zambia and Morocco. It was also helped by a report by InterVISTAS Consulting, which calculated, even using only 12 countries as an example, that liberalisation could increase traffic by 81%, step up connectivity from 52% to 75%, cut fares by 25%-35%, create 155,100 additional jobs and generate \$1.3 billion.

"We all needed to come together. Now everybody is doing their own bit. The momentum is there."
Iyabo Sosina

"In the past, the airlines were reluctant [for their states] to implement [YD] because they thought they were going to die, so they called on the state to protect them," said Sosina. "The states willingly did that, but things have got to a stage where [the airlines] have been protected and they are still dying."

"The services are not there; movement of people and goods are not possible and connections are a problem. If you want to go to between west and central Africa, it shouldn't take more than three hours, but it takes 24 hours. Things are just not working the way they should. We all needed to come together. Now everybody is doing their own bit. The momentum is there."

The delay in implementing an open-skies policy has not been without cost. Ethiopian Airlines' CEO, Tewolde Gebremariam, said intra-African competition had led to a situation where non-African carriers were at an advantage, a situation also voiced by African Airlines Association (AFRAA) secretary general Elijah Chingosho at the organisation's annual general assembly in Algiers last year.

"Today, there is unfair competition on the continent," said Gebremariam. "The result is 80% of intercontinental traffic between Africa and the rest of the world is carried by non-African carriers; only 20% is carried by African carriers. This is lopsided and has to be corrected."



Gebremariam said open skies would allow African countries to negotiate with other block countries – such as the European Union (EU) – on an even footing.

"The EU member states treat the European airspace as a single market to have full freedom of the air for their airlines. That means, when it comes to air-services agreement negotiation between member states of the EU and other [non-European] countries, the EU acts as a single market.

"If one EU airline wants to fly to any country in Africa [it can] fly to that country through any other European country. For instance, British Airways can fly to Addis through Paris. But Ethiopian Airlines or Kenyan Airways will not be able to fly to European countries through other African countries.

"It is this kind of block-to-block negotiation that will make [African aviation] more competitive and create a level playing ground for everybody," he said.

Most African airlines are behind the decision, believing it will help them to compete with the foreign airlines that currently dominate the continent's aviation traffic. But not everyone is so enthusiastic, with some airlines fearing other African countries will dominate them as much they believe European and Gulf airlines currently do.

Ado Sanusi, deputy managing director of Arik Air, said: "[It will] not provide everybody with a level playing field. It gives advantage to countries like Kenya and Ethiopia, which have developed airlines [that they will] use to exploit other African countries that do not have well-established airlines. These countries use their airlines to develop tourism at the expense of other African nations."



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Safety the top priority as

As the Arab Spring approaches its fifth anniversary later this year, Tunisair is still working to pick up the pieces of its former plans and rebuild its strategy. Victoria Moores reports.

«La sûreté : une priorité absolue pour la croissance en Tunisie » – Page 24

When Tunisia's Tarek al-Tayeb Mohamed Bouazizi burned himself to death in protest at his treatment by police on December 17 2010, he kick-started a wave of unrest in North Africa and the Middle East.

Nearly five years on, Tunisair continues to feel the ripple effects of that day. "Managing all of the economic, security, safety and technical problems has been a big headache," said Tunisair vice-president Ali Dridi.

Dridi joined Tunisair in 1988 as a first officer on the Boeing 727. "With a 727, you fly the aircraft. Now, [with the A320], we simply manage it," said the old-school pilot and instructor.

Management outside of the cockpit is also a central part of Dridi's work. He was promoted to his current position last June, when Saloua Seghaier was named as Tunisair's new CEO.

Although he already has his hands full managing Tunisair's fleet renewal, its turnaround plan and the current unrest in Libya, Dridi's most pressing concern is safety and security. "We have to be careful," he said. "Following the revolution, we have a lot of threats [against the airline]. We can't accept that situation, so we are improving our security and safety management training for all Tunisair staff."



The Tunisian Government has agreed to step up airport surveillance and security in a bid to stabilise and safeguard Tunisair's operations. Meanwhile, the Tunisian Civil Aviation and Airports Authority (OACA) is working to reduce the delays that have plagued Tunisair's operations. The government has also asked OACA to defer Tunisair's fuel and airport debts while it gets back on its feet.

Things are becoming more stable and, following the country's parliamentary elections in October 2014 and presidential elections a month later, 2015 should be a calmer year for the country. However, as the dust settles, it promises to be another transitional year for Tunisair.

Back in late 2012, Tunisair was finalising a five-year restructuring plan, paving the way for nearly 2,000 job cuts, a slow-down in aircraft deliveries and network growth. That plan was meant to enter force in 2013 and end in 2017, but it has been revamped into a two-year, short-term strategy for 2015-2016, aimed at maximising productivity and cutting mainline costs.



"We are improving our security and safety management training for all Tunisair staff."
Ali Dridi

Tunisia springs into action

The real effects will be seen this year, as Tunisair cuts 1,700 positions from its 8,400 headcount – or 20% of its workforce.

The airline has agreed with its unions that all redundancies will be voluntary, achieved through roughly 1,300 early and 300 normal retirements. This will mainly affect cabin crew and ground staff. Pilots and engineers are excluded from the scheme, as they are needed for the airline's expansion. The bottom line is that an airline that operates just 29 active aircraft simply cannot afford to have 8,400 staff – almost 290 per aircraft.

Tunisair is also feeling the fallout of the revolution in its structure. Back in the early 2000s, it turned a number of its divisions – including catering, ground handling, IT, maintenance and regional airline Tunisair Express – into fully-owned subsidiaries. But, in the wake of the troubles, a pact was signed forcing it to reintegrate those subsidiaries back into the company.

“This agreement, from 2011, has not been implemented yet, because we still need to negotiate how to do this. Tunisair is the mother



company and it takes a long time to make decisions. With these divisions in place, management is more fluent, more expedient. It really is not the solution [to reintegrate], but I don't think we have any other option now,” Dridi said.

He explained that the leadership behind the original restructuring took a top-down approach and rolled out the changes without involving the workforce. This put Tunisair in direct conflict with its 11 unions and created a lot of ill-feeling among staff. “We need to make sure we don't make the

same mistake again. With positive communications and union involvement; we have to discuss and resolve all these problems together.”

Today, Tunisair's fleet comprises four Airbus A319-100s, 18 A320-200s and seven Boeing 737-600s (it grounded two 737-500s and three A300-600s in January 2014). The carrier is due to receive its first two A330-200s in 2015, followed by a third in 2017. It is also taking three more A320-200s, two in 2016 and single aircraft in 2017.

These deliveries form part of a

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on Page 24

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CONTINUED FROM PAGE 23

2008 order, which originally covered 10 Airbus A320s, three A330-200s and three A350s. However, the aircraft were delayed and Airbus order figures, as updated in January 2015, do not show any A350 commitment for Tunisair.

Dridi said the A350s – slated to arrive from 2018 – were only ever an option with Airbus. Tunisair deferred its deliveries and tried to switch the three A330s to A350s, but this was not possible, so it will revisit the A350s under its next fleet plan for the period 2016-2022. “For the moment, we have cancelled this option. They are not coming but we will have to discuss a new plan,” he said. Meanwhile, the 737-600s will continue flying until 2020.

The A330s will be used to launch Montreal flights from the end of 2015 and Tunisair is also planning to expand its intra-African operations to 20 destinations on the continent over the next two years, with Accra, Libreville, N’Djamena and two other routes slated to join its network in 2016.

One of Tunisair’s main African markets is Libya, where it typically operates 65 flights a week to four cities. The airline was planning to increase that total to 75 weekly flights but, in June 2014, on-going unrest forced it to suspend all its Libyan flights. “We have stopped operating to Libya – there is nothing right now – we are waiting for stability,” explained Dridi.



Likewise, Tunisair’s once strong charter market has taken a real beating because of the revolution. “We had a drop off, especially in tourism. In 2010, 40% of Tunisair’s flights were charters. Now they represent less than 10%, so that has caused economic problems for both Tunisia and Tunisair.”

Dridi is hoping that an increase in traffic from northern Europe and Russia – along with extra frequencies to Dakar and Dubai – might partly compensate for the lost Libyan traffic. “The transport market withdrew over the last few years, but we hope that things will develop in 2015, once the situation in Tunisia is more stable,” he explained.

However, further turbulence looms. Now the new Tunisian Government is in place, talks towards open skies with Europe are set to resume. This could open the doors to fierce European low-cost competition, similar to that seen in Morocco. “Opinions are divided,” Dridi said. There is pressure from the tourism sector to make a rapid transition to open skies, but Tunisia’s four airlines are calling for more preparation time.

“If we take the experience of Morocco, for Royal Air Maroc, the experience was not very good. But we have to do this. It is good for connectivity, competition, improved quality of service and a better market. Tunisair’s objective is to be ready for open skies. We have a plan to make a low-cost, or low-fares company in the future,” he said, without specifying further details.

SOMMAIRE

La sûreté : une priorité absolue pour la croissance en Tunisie

Presque cinq ans après le printemps arabe, Tunisair continue à raviver ses anciens plans et à redéfinir sa stratégie pour remettre la compagnie sur les rails. Le point avec Victoria Moores.

Tunisair continue à ressentir les effets du mouvement de protestation de 2010. « Gérer les problèmes économiques, techniques, de sécurité, de sûreté a été un véritable casse-tête », avoue le directeur général adjoint de la compagnie, Ali Dridi. Il a intégré Tunisair en 1988 comme premier officier sur un Boeing 727. Il a été promu à son poste actuel en juin dernier, lorsque Saloua Seghaier a été nommé comme nouveau PDG.

Même s’il gère le renouvellement de la flotte de Tunisair, le plan de redressement et les troubles actuels en Libye, la préoccupation majeure d’Ali Dridi reste la sécurité et la sûreté. Le gouvernement tunisien a accepté de renforcer la surveillance et la sécurité aéroportuaire pour stabiliser et protéger les opérations de Tunisair. De son côté, l’autorité tunisienne de l’aviation civile et des aéroports (OACA) s’efforce de réduire les retards ayant affecté les activités de Tunisair. Le gouvernement a également demandé à l’OACA de reporter les dettes de carburant de Tunisair et celles liées à l’aéroport.

La situation se stabilise depuis les élections législatives et présidentielles en 2014 et l’année 2015 devrait être plus calme avec des promesses d’une autre transition pour Tunisair.

Une stratégie à court terme de deux ans (2015-2016) a été élaborée pour maximiser la productivité et réduire les coûts. Les effets réels devraient être ressentis cette année. La compagnie compte réduire de 1700 le nombre de postes, soit 20% de son effectif. Cela concernera principalement l’équipage de cabine et le personnel au sol. Les pilotes et les ingénieurs sont épargnés pour assurer l’expansion de la compagnie.

Selon Ali Dridi, la restructuration doit se faire dans la concertation et le dialogue avec les syndicats. Aujourd’hui, la flotte de Tunisair comprend quatre A319, 18 A320 et sept B737-600 (deux 737-500 et trois A300-600 sont au sol depuis janvier 2014). Le transporteur doit recevoir ses deux premiers A330 en 2015 et un troisième en 2017. Il va également acquérir trois autres A320, deux en 2016 et un avion monocouloirs en 2017.

Ali Dridi explique les A350 reviendront dans le plan de flotte pour la période 2016-2022. Entretiens, les 737-600 continueront à voler jusqu’en 2020. Les A330 seront utilisés pour lancer les vols vers Montréal en fin d’année. Tunisair prévoit également d’étendre ses opérations intra-africaines sur 20 destinations sur le continent durant les deux prochaines années. Accra, Libreville, N’Djamena

ainsi que deux autres routes devraient intégrer son réseau en 2016.

L’un des principaux marchés africains de Tunisair reste la Libye, vers laquelle elle exploite généralement 65 vols par semaine dans quatre villes. Ce nombre qui devait passer à 75 vols hebdomadaires. Mais tous les vols ont été suspendus en raison de l’instabilité sur place.

La révolution a beaucoup impacté Tunisair en raison d’une baisse dans le tourisme. En 2010, 40% des vols de Tunisair étaient des vols charter. Maintenant, ils représentent moins de 10%.

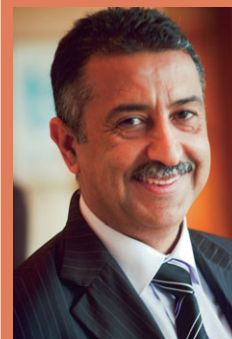
Ali Dridi espère que l’augmentation du trafic venant du nord de l’Europe et de la Russie ainsi que les fréquences supplémentaires vers Dakar et Dubai compenseront en partie cette perte en vue d’une normalisation de la situation en Tunisie.

Cependant, de nouvelles turbulences s’annoncent. Avec l’installation du nouveau gouvernement, les discussions sur la libéralisation de l’espace aérien vont reprendre avec l’Europe. Cela pourrait entraîner une concurrence féroce avec les compagnies aériennes à bas

coûts européennes comme celle constatée au Maroc.

« Les avis sont partagés. Il y a la pression du secteur du tourisme pour une transition rapide mais les quatre compagnies aériennes tunisiennes appellent à plus de préparation... Mais nous devons le faire. C’est important pour la connectivité, la compétition, l’amélioration de la qualité du service et pour un marché de meilleure qualité. L’objectif de Tunisair est d’être prêt pour la libéralisation de l’espace aérien », affirme Ali Dridi.

Il annonce que la compagnie a un projet de bas coûts ou de bas tarifs sans toutefois donner des détails sur ce projet.



« L’objectif de Tunisair est d’être prêt pour la libéralisation de l’espace aérien. »

ALI DRIDI

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Having returned to profit under a successful restructuring programme, flag-carrier Royal Air Maroc is shrugging off regional challenges and embarking on a new era of expansion.

Martin Rivers meets deputy chief executive **Habiba Laklalech**.

MAROC RAISES THE STANDARD

News that Royal Air Maroc grew its African traffic by 16% over the 12 months to October 2014 – transporting 1.3 million passengers across the continent – might seem perplexing against a backdrop of both the Ebola outbreak in west Africa and regional instability in north Africa.

There is no denying that Morocco's flag-carrier is heavily exposed to the Ebola crisis,

servicing about 30 west African destinations, including the worst-affected countries of Guinea, Sierra Leone and Liberia. Its home base in the Maghreb region of north Africa also places the airline in a volatile neighbourhood wracked first by the Arab Spring and now by a series of deepening Islamist insurgencies.

Yet, despite the turmoil engulfing both sub-regions, Royal Air Maroc is not only expanding

on the continent but, more remarkably, it is doing so while turning over a profit.

Casablanca's geographical location allows the flag-carrier to offer a unique hub-and-spoke network that connects most major western European cities with west Africa. It is a model that has delivered positive financial results in eight of the past 10 years – also weathering the 2006 'open skies' agreement between Morocco and the European Union (EU) – and management are only growing in confidence, unveiling plans to double the fleet to 100 aircraft over the coming decade.

While Ebola undoubtedly presents a challenge to the business plan, the World Health Organisation has urged airlines to continue flying to the sub-region in order to facilitate the flow of humanitarian relief and medical supplies.



And Royal Air Maroc is doing just that, preserving its connections at a time when Air France, British Airways and Emirates Airline have all suspended routes. Though it is still early days, the results, so far, are encouraging.

"We have transported more than 30,000 passengers from these three [Ebola-hit] countries during the past six months," noted Habiba Laklalech, Royal Air Maroc's deputy chief executive. "And there has not been one single case [of the disease on our flights]. So the measures that were put in place are sufficient to reduce the risk of contamination."

Those measures include recording passenger temperatures at both the airport of origin and at Casablanca, as well as carrying Ebola isolation kits on every aircraft. Because Ebola is not an airborne disease and sufferers only become contagious after the onset of

Continued
on Page 28

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A close-up portrait of Habiba Laklalech, a woman with short, light brown hair, smiling warmly. She is wearing a light-colored blazer over a dark top and a gold necklace. The background is softly blurred.

“We have transported more than 30,000 passengers from these three Ebola-hit countries during the past six months. And there has not been one single case of the disease on our flights. So the measures that were put in place are sufficient to reduce the risk of contamination.”

HABIBA LAKLALECH

RAM's first Dreamliner is in action - with the second due in March 2015.



symptoms, these seemingly basic steps are all that is needed to stop the virus crossing borders.

“The nature of [inbound] traffic going to these countries has changed,” Laklalech admitted.

“We are seeing more medical staff, more humanitarian workers. But [outbound] traffic from these countries to the rest of the world hasn’t decreased. People are still flying.”

With Ebola not seen as posing a long-term threat to African traffic flows, Royal Air Maroc is determined to strengthen its market share on the continent. New routes to central and east Africa continue to be evaluated. Laklalech confirmed, citing the addition of Chad’s capital N’Djamena in June 2014, although straying too far from its west African stronghold is considered risky.

“We are looking at the possibilities but we know that we will not necessarily be the strongest airline [in central and eastern markets],” she explained. “Geographically, there are other routes to Europe that might be more attractive to passengers in east Africa.”

Further developing the north-to-south hub proposition, therefore, remains the priority, with Royal Air Maroc leveraging its “unique expertise” in serving remote, difficult-to-reach destinations that other carriers might shy away from. “We have very well trained pilots,” Laklalech noted. “We have specific courses for [flying in] Africa. So even when we lease aircraft for the peak period, we prefer to use our own pilots.”

This expertise saw Royal Air Maroc become one of the first carriers to resume serving Tripoli after the overthrow of Libyan dictator Muammar Gaddafi in 2011. The airline launched thrice-weekly flights just one month after the no-fly zone over Libya was lifted, but worsening security in the country has since forced it to withdraw, along with every other international operator.

“We are following the progress of the political situation and, as soon as the environment is safer, we’ll probably go back,” Laklalech said. “Our agencies are still open in Libya.”

Growing security concerns in Algeria, Tunisia and Egypt have put further pressure on north African demand, though Royal Air Maroc has limited exposure to these markets. Only the capital cities of Algiers, Tunis and Cairo feature in its network. The Algerian and Egyptian routes have both remained stable, while frequencies to Tunisia’s capital actually doubled last year, according to Innovata scheduling data.

As for Morocco itself, despite having a safe reputation, the country is by no means immune to jihadist violence. Bombings in 2003 and 2011 claimed 50 innocent lives, and the growing influence of the Islamic State (IS) in Iraq and Syria has renewed fears of lone-wolf attacks.



Such concerns reached fever-pitch in November 2014, when three masked Islamists released a video swearing allegiance to IS and threatening violence in Morocco. The video echoed pledges by other, better-established Islamist groups in north Africa, many of which stepped up attacks last year in an apparent effort to curry favour with IS. Within a week, however, Moroccan police had tracked down and arrested the three ‘wannabe’ jihadists. The country remains on high alert.

Indeed, while the crises to the south and east of Morocco are undoubtedly causes for concern, its flag-carrier has a proven track-record of overcoming difficult circumstances.

The biggest such obstacle came in 2006, when the Moroccan Government signed an ‘open skies’ treaty with the EU as part of efforts to expand its tourism sector. The liberalisation programme had an immediate impact on visitor

numbers – up 60% to 9.3 million by 2010 – but Royal Air Maroc was not the main beneficiary. Although its passenger numbers grew in tandem with the country’s tourism growth, its yields plummeted.

A price war between European low-cost carriers (LCCs) Ryanair and EasyJet was largely to blame, with the newcomers vying for dominance in the now-unprotected marketplace. Air Arabia Maroc also launched operations in 2009. To date, Laklalech said 44 airlines have entered Moroccan skies since liberalisation.

For Royal Air Maroc, the cost of defending market share in this environment was two consecutive years of operating losses in 2010 and 2011, each time sinking nearly 500 million Moroccan dirham (\$60 million) into the red.

Convinced that a permanent, structural change had occurred in the competitive landscape – LCC penetration had by this stage reached 40%, four times higher than before ‘open skies’ – management hit back with an immediate restructuring programme.

“First, we reduced our headcount from 5,100 to 2,900,” Laklalech recalled. “This led to a significant improvement in productivity. Today, we have about 60 employees per aircraft, which is one of the best ratios in the industry. In fact, it is better than many of the low-cost airlines, which do not even have a dedicated sales force. We also decided to cut all the unprofitable point-to-point routes, where low-cost competition was very strong. And we relocated that capacity to Casablanca.

“So today we have 20% of our capacity in point-to-point markets – for example Marrakech, Tangier, Agadir – while 65% is [deployed on international routes from] Casablanca, and 15% domestic through Casablanca.”

Continued
on Page 30



Seen with greater frequency.

With E190s now in service to Royal Air Maroc (RAM), E-Jets are spotted even more frequently in Africa and the Middle East. In fact, greater frequency — as an operations goal — is often easier to achieve with smaller-capacity E-Jets complementing larger narrow-bodies. Witness RAM's opening of new high-frequency short- and medium-haul E-Jet routes from its Casablanca hub. It's a strategy of matching capacity with demand. A strategy that works every time. Or at least quite frequently.

Other E-Jet operators in Africa and the Middle East include Egyptair Express, Kenya Airways, LAM Mozambique, Oman Air, Petro Air, Royal Jordanian, Royal Omani Police, Saudi Arabia Airlines, and Saudi Aramco.

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“The main challenge we face in Africa is traffic rights. Morocco is unique in Africa for signing an ‘open skies’ agreement with the European Union. Other countries still have limitations.”

HABIBA LAKLALECH

Royal Air Maroc was among the first to order and take delivery of ATR 72 600-Series aircraft.



CONTINUED FROM PAGE 28

Having relinquished about 20 secondary routes to LCC rivals, the flag-carrier rallied behind a hub-and-spoke network that its new competitors had neither the strategic intent, nor the traffic rights, to replicate. It now operates almost three out of every four flights at Casablanca’s Mohammed V International Airport.

The success of the strategy was confirmed in 2012, when Royal Air Maroc posted an operating profit of 718 million Moroccan dirham (\$77.5m). It achieved the result despite processing 6.1% fewer passengers than the year before, and suffering a 2.3% reduction in load factor.

While reverting to its network-carrier roots and streamlining operations allowed Royal Air Maroc to withstand the LCC influx, it was no silver bullet for the wider difficulties facing the airline. Protectionism elsewhere on the continent remains a concern.

“The main challenge we face in Africa is traffic rights,” Laklalech complained. “Morocco is unique in Africa for signing an ‘open skies’ agreement with the European Union. Other countries still have limitations.

“Look at Mauritania: we used to have [a weekly allocation of] 14 flights. Then the state reduced them to 11, to nine, to seven and now five.”

Bilateral frequency constraints will probably continue to be a bugbear for many years to come, with few African countries displaying much enthusiasm for implementing the 1988 Yamoussoukro Declaration, the continent’s roadmap for cross-border liberalisation. In spite of this anti-competitive landscape, however, Royal Air Maroc has fully emerged from its restructuring programme and is once again entering a growth phase.

Five new aircraft were received in the last two months of 2014: four Embraer E-190s and one Boeing 787 Dreamliner (MSN 43817), the first of the type to be operated by a Mediterranean carrier.

These arrivals have lifted the mainline unit’s fleet to 47 aircraft, also comprising 36 737 NGs, one converted 737 freighter, four 767-300ERs and one 747-400. Another four Dreamliners are on order, with the next delivery scheduled for March 2015.

The composite jets will initially be used to boost Royal Air Maroc’s New York route to twice-daily. But with the 767-300ERs also remaining in service, it will not be long before new markets are sought. China is already under review, Laklalech confirmed, with Beijing considered the most attractive market.



At present, Royal Air Maroc serves just three cities outside of Africa, the Middle East and Europe: New York, Montreal and Sao Paulo.

Fully-owned subsidiary Royal Air Maroc Express also deploys five ATR 72-600s on mostly domestic services, although its parent maintains a presence on internal trunk routes such as Casablanca-Tangier and Casablanca-Agadir.

“We are currently finalising our fleet plan for the 2015-2025 period,” Laklalech continued. “We will probably be launching a tender in 2015.”

By the end of that period, Royal Air Maroc expects to deploy 100 aircraft, with the focus remaining on short-to-medium-haul types. Its expansion is designed to support the government’s target of attracting 20 million tourists to Morocco each year.

About 85 of the projected 100-strong fleet will be narrow-bodies, Laklalech said, including about 20 100-seater jets used for developing thinner routes. “The 100-seaters will facilitate the penetration of new markets,” she explained. “We will initially use these jets on new routes, as they are less expensive to operate. Then, as load factors rise, we can switch to larger aircraft.”

Introducing E-190s has allowed Royal Air Maroc to begin testing this strategy but the flag-carrier is not yet throwing its weight behind Embraer. “It could be E-190s, or Bombardier C-Series, or maybe Sukhoi [Superjets],” she said of the upcoming 20-unit order. “We don’t know yet.”

Likewise, despite the preponderance of Boeing aircraft in the fleet, Laklalech would not rule out turning to Airbus for the larger narrow-bodies. “It will be either the Boeing 737NG MAX or the Airbus A320neo [that we order],” she said.

With a period of rapid and costly fleet expansion looming, management have one final priority weighing on their minds: the long-running search for a strategic investor.

The Morocco Government currently owns 96% of the flag-carrier, while Air France and Spain’s Iberia also hold small stakes. Those minority shareholders are unlikely to buy more equity, Laklalech admitted, but she believes Royal Air Maroc’s track-record for profitability should be appealing to other groups. Asked if Abu Dhabi’s Etihad Airways is among the preferred suitors, she shrugged: “Maybe. If there are synergies, why not?”

Alternatively, joining one of the big alliances might also bring benefits. All three groupings – Star Alliance, SkyTeam and Oneworld – are under evaluation, though Laklalech said she is mindful of the associated costs of membership.

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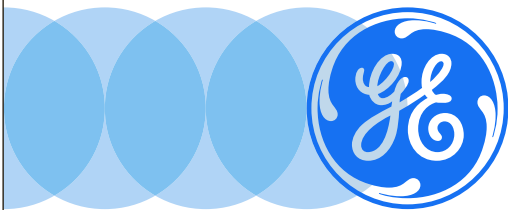


Air Zimbabwe acting board chairman, Eric Harid, says the national airline urgently needs a massive cash injection. Oscar Nkala reports.

The restarted Air Zimbabwe is already in trouble and needs \$368 million to recapitalise operations and undertake compliance initiatives that will pave the way for it to be re-admitted to the International Air Transport Association (IATA).

In submissions made to the parliamentary portfolio committee on transport and infrastructure development in Harare, Air Zimbabwe acting board chairman, Eric Harid, said the airline needs \$331.97 million to lease or purchase aircraft, \$11.4 million for human resources recapitalisation and \$10.6 million for plant and equipment upgrades.

Additional costs include \$7.5 million for the construction of new office infrastructure and \$2.1 million to clear up debts owed to the IATA.



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The Falls and rise of Air Zimbabwe

The airline also owes serving and forcibly retrenched workers \$302 million in salary and terminal benefits arrears.

It is presently paying workers only 40% of their monthly salaries.

“We are currently accruing 60% debts every month through our staff. Our staff and creditors have been suing us and, as a board, we hope we are able to tackle that,” Harid said. He added that the airline, which last made a profit in 2003, recorded a loss of \$45 million in 2013 due to short routes, high fuel costs and the continued use of ageing equipment.

The highest operating cost is fuel, as the company was using fuel-intensive Boeing 737 planes for one-and-a-half hours flights when they were meant to fly continuously for six hours.

“Our core business is in three models – passengers, cargo and mail – but our greatest asset is people,” said Harid.

Although the airline owns around a dozen aircraft, many are currently non-operational.

□□□□□

There are two Boeing 767 2RERs, which seat about 197 passengers, but one is operational while the second is undergoing final C-checks at a regional aircraft maintenance factory.

“Two leased Airbus A-320 aircraft, each with a capacity of 156, are both undergoing maintenance in South Africa,” said Harid.

“Of our three MA-60s, two are grounded, while the only operational one is presently servicing the Victoria Falls-Kariba-Harare route, which we re-opened in August last year,” he added.

Despite spirited attempts, Air Zimbabwe has failed to attract joint-venture partners and financiers because it is heavily indebted. Accusations of corruption and reports of financial scandals involving the company’s former board members have forced potential funders to adopt a “wait and see” attitude as the new board settles down to work.

The airline operates to only one regional destination – Johannesburg – with flights originating from Bulawayo, Harare and Victoria Falls. It also runs three regular domestic flights on the Bulawayo-Harare, Harare-Bulawayo-

“We have seen that Zimbabwe is a market full of opportunities...”
SAMEER ADAM



Victoria Falls Airport’s appearance belies its importance for tourism and conferences.

Victoria Falls and the Harare-Kariba-Victoria Falls routes.

Despite the bad state of its finances, Air Zimbabwe recently announced that it is negotiating with Canadian business jet manufacturer, Bombardier Aerospace, for the acquisition of an undisclosed number of low-cost twin-engined, medium range, turbo-prop Bombardier Q-400 regional jets.

Bombardier sales director for Africa and Middle East, Sameer Adam, said the company would be happy to do business with the ailing Zimbabwean national flag-carrier.

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“We have seen that Zimbabwe is a market full of opportunities and we hope that, if we manage to strike a deal with Air Zimbabwe, we will be able to supply and introduce the latest technology in this market.

“We have more than 110 Q Series aircraft in Africa and we would be happy to offer our services to Zimbabwe,” Adam told local media in Harare after the Bombardier Q-400 jet made a maiden Zimbabwean test-flight from Harare to the resort town of Kariba and back.

Obert Mpfu, Transport and Infrastructural Development Minister, said Air Zimbabwe

should seize the opportunity and take advantage of the technology offered by Bombardier to rebuild its fleet to a world-class civil aviation service.

“Air Zimbabwe must take advantage of new technology being offered by Bombardier and select the most suitable aircraft for the local environment. Many companies have approached us with proposals for us to buy their planes and we are still considering them,” Mpfu said.

According to its strategic business redevelopment model for the 2014-2016 period, Air Zimbabwe presently needs at least two more aircraft, of which one will be dedicated to service the domestic market while the other will operate to regional destinations.

Mpfu said Air Zimbabwe would deploy the two Airbus A320s, set to be re-delivered shortly from South Africa, to service flights on key regional routes, which included Nairobi in Kenya, Lilongwe in Malawi and Kinshasa in the Democratic Republic of Congo (DRC).

“We will soon be adding the two Airbus A320s to the fleet. They can accommodate the routes that we have not been able to service as a result of the limitations on our fleet. The old fleet will also be brought in. We have been doing our best to look for funding to get all those aircraft flying to give Air Zimbabwe an edge in terms of competition,” the minister added.

Having developed a thriving network from its Togolese home base, Asky Airlines is cautiously evaluating a new satellite hub in Ghana. Martin Rivers talks to chief executive Yissehak Zewoldi.

Zewoldi plans for a home from Lomé...

Since launching operations in 2010, Togo's Asky Airlines has cemented its status as the dominant home-grown entity in west Africa's fragmented aviation market.

The airline was founded at the behest of the Economic Community of West African States (ECOWAS), an alliance of 15 nations that correctly identified air connectivity as a potential catalyst for the sub-region's fortunes.

Today, Asky deploys an eight-strong fleet – four Bombardier Dash 8 Q400s, three Boeing 737-700s, and one 737-400F freighter – to 22 points in west Africa, stretching from Dakar on the westernmost tip of the continent to the central African metropolis of Kinshasa.

And although 60% of its traffic is routed through the Togolese capital Lomé, chief executive Yissehak Zewoldi is not blind to the economic powerhouse across his western border.



Ghana's gross domestic product (GDP) was more than 10 times higher than Togo's in 2013, according to the World Bank, totalling \$103 billion when measured by purchasing power parity. The country's well-established reputation as a magnet for foreign investment has delivered four consecutive years of GDP growth above 7%, and capital inflows are being accompanied by a steady influx of foreign businesspeople.

The Ghana Airports Company recorded 1.67 million international passengers last year – a modest dip on the 2012 figure, but enough for Accra to retain its title as the busiest west African hub outside of Nigeria.

Little wonder that Star Alliance members Ethiopian Airlines, South African Airways (SAA) and EgyptAir, are all evaluating Accra as a springboard for the sub-region.

For Asky, however, which is under a five-year



management contract with 40% stakeholder Ethiopian Airlines, Ghana's rising star is becoming a double-edged sword.

Zewoldi may be keen to expand the airline's presence in Accra – envisioning a secondary base that can tap into Ghanaian traffic flows – but he refuses to do anything which could undermine the primary hub in Lomé.

"Absolutely no," the chief executive said, when asked if he would relocate Asky to Ghana. "Lomé will remain our hub. But we have the capacity to develop a satellite hub in Accra.

"We can use the aircraft down-time during the night to operate out of Accra. With or without partners, this is an on-going project for Asky. We have formulated some ideas and, in a couple of months, we will go for the implementation ... It's not only Accra, we are also considering Cotonou [across the eastern border with Benin]."

Asky's existing and future partners are undoubtedly pushing Zewoldi towards the Ghanaian capital. At present, Ethiopian Airlines uses Lomé as its west African base, codesharing with the Togolese carrier while also

operating fifth-freedom flights to Sao Paulo and Rio de Janeiro.

But chief executive Tewolde Gebremariam last year revealed that the Star Alliance is calling on its Addis Ababa-based member to re-route traffic through Accra. "Most of our partners fly to Ghana and, therefore, that will be a good meeting point," he said, referring to transfer opportunities with the likes of Lufthansa and SAA.

"The Star Alliance is encouraging us to operate a second [west African] hub in Accra, so we are examining that."

Yet SAA has also publicly encouraged Asky to re-evaluate Accra's role. Chief executive Monwabisi Kalawe recently said he would consider investing in the Togolese carrier if it shifted operations to Ghana. Zewoldi shot down that suggestion, however, saying there are "no direct talks between Asky and South African Airways at this point in time".

Insisting that the clarion calls about Accra are nothing new within African aviation circles, he noted that various proposals had been floated around the turn of the decade.

"There was a Star Alliance initiative three or



“If there are market opportunities, I am sure we will jump on them.”

YISSEHAK ZEWOLDI

four years ago, where African members developed an African strategy,” Zewoldi recalled. “Based on that guideline, the three airlines – Ethiopian Airlines, EgyptAir and South African Airways – were exploring areas of mutual interest where they can cooperate and extend their market reach. This project was aimed at forming a partnership in west Africa and central Africa.”

SAA had previously devoted much of its attention to the long-running Air CEMAC project, which took its name from the Central African Economic and Monetary Community. Air CEMAC was conceived as a successor to Air Afrique, the transnational carrier for French-speaking parts of west and central Africa that ceased operations in 2002.

After failing to agree on the planned hub for Air CEMAC – SAA favoured Douala, while the start-up’s regional backers wanted Congo-Brazzaville – the South African airline, together with Egypt’s flag-carrier, began exploring opportunities further west.

“So EgyptAir and SAA came to Lomé, saw the hub, and they found it to be very interesting,” Zewoldi continued. “Unfortunately, EgyptAir

and South African fly into Accra, not Lomé. So an idea emanated from the discussions that Asky will have a Lomé hub, but also extend some of its flights from Accra to points of interest for EgyptAir and South African.”

Ultimately, however, the “idea was not entertained at the speed that was expected” and it fell by the wayside. EgyptAir, instead, decided to acquire 50% of defunct Ghanaian operator CiTylinK, while Ethiopian raised its stake in Asky from 25% to 40%.

SAA’s hunt for a west African partner, meanwhile, continues, and Zewoldi does not rule out some form of Asky cooperation in the future.

Togo, like Ghana, is investing in a new terminal for its capital’s airport, lifting annual capacity at Lomé to two million passengers. But, despite Asky’s centralised network, it would be wrong to describe the airline as a traditional hub-and-spoke operator.

Poor connectivity across west Africa has created myriad opportunities to link up foreign countries with fifth-freedom flights. Thus, routes such as Abuja-N’Djamena and Bamako-Dakar allow Asky to develop traffic flows far beyond its

Togolese home base. The capitals of Guinea, Sierra Leone and Liberia had also been used for onward connections before the outbreak of Ebola, and Zewoldi is constantly looking for new linkages.

“If there are market opportunities, I am sure we will jump on them,” he said, predicting that the satellite hub in Accra will evaluate non-stop services to destinations like Bamako, Brazzaville, Dakar, Kinshasa, N’jamena and Niamey.

Entirely new regional points are also on the agenda, with Nouakchott in Mauritania, Luanda in Angola, and Equatorial Guinea all being considered. Progress may be slow on these fronts, however, as Zewoldi admitted that “there are some bilateral issues in this part of Africa” – even for an airline as well connected politically as Asky.



In the meantime, Johannesburg and Beirut are both in the pipeline for early 2015. Launching medium-haul routes will be a significant milestone for Asky, which has, hitherto, focused solely on the sub-region. Their addition will be made possible by the delivery of another four aircraft over the coming five years, most likely including 737-800s.

Zewoldi is candid when discussing the competitive landscape across west Africa, accepting that other start-ups, such as Air Côte d’Ivoire and Gambia Bird, are also filling the void left by Air Afrique.

But he insists that Asky remains in pole position due to its entrenched network and strong support from the Togolese authorities. “We have the first-mover advantage in west Africa, and we have also developed a very strong reputation with the travelling public,” the chief executive concluded. “With completion of the new terminal building, Lomé will be even more attractive.”

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Ethiopian Airlines' new MRO hangar, under construction at Addis Ababa Bole International Airport.

PICTURE: DAVID OLIVER

This year sees the 70th anniversary of the founding of Ethiopian Airlines, now the largest and most profitable airline in Africa. David Oliver reports on a remarkable success story.



After a decade of growth that has seen a remarkable revenue increase of 530%, Ethiopian Airlines has ambitious plans to take advantage of Africa's air traffic growth, which is expected to surge by more than 6% in the next decade.

The Star Alliance airline already serves 1,356 airports in 193 countries and is a freight operator in Africa, flying to 24 destinations worldwide. Addis Ababa Bole International Airport, which opened in 1962, is the airline's home base.

Ethiopian Airlines is currently well on its way to achieving an ambitious multi-billion dollar 'Vision 2025' programme, which will see it nearly doubling its fleet, from 72 aircraft currently to 140. It is also aiming to increase passenger

numbers from six million today to 18 million, and quadruple its cargo-handling capacity, the number of trainees through its aviation academy, and its revenue.

By the end of last year, the airline's 10th Boeing 787-8 Dreamliner and its CAE B787 7000 Series full-flight simulator (FFS) had been delivered, and a \$2.1 billion contract for 20 Boeing 737 MAX 8 aircraft, plus an option for an addition 15, had been confirmed. The airline also announced a new route to Los Angeles, via Dublin, that will commence in June 2015.



A memorandum of understanding (MoU), signed in May 2014 between Ethiopian Airlines and the Chinese aircraft lessor, ICBC Financial Leasing, will provide financial support for its fleet expansion plan in the form of finance lease, sale and lease back, commercial loans or operating leases from ICBC Leasing's Boeing fleet.

As part of its expansion programme, Ethiopian is establishing multiple hubs throughout Africa. It has taken 49% stakes in Asky Airlines, based at Lome-Tokoin Airport in Togo, and Malawian Airlines, at Lilongwe International Airport in Malawi, to form west and southern Africa hub respectively.

These airlines, which began services in 2014, operate Boeing 737 and Dash 8 Q400 aircraft leased from Ethiopian Airlines, which is also planning to establish a central African hub, possibly in the Democratic Republic of Congo (DRC).

A pivotal part of the airline's 'Vision 2025' programme is the Ethiopian Aviation Academy (EAA), which has become a centre of excellence developing a skilled workforce for operational divisions of not only Ethiopian Airlines but also the wider African aviation industry.

Driven by the airline's commitment for self-sufficiency and meeting the growing demands for its training from customers around the world, the academy has continuously expanded, both in capacity and staffing, over the years.

Launching the EAA expansion programme Tewolde Gebremariam, CEO of Ethiopian Airlines Group said: "Human resource development is one

of the four pillars we set in order to achieve our 'Vision 2025' strategic plan. That's why we took serious measures in developing and modernising our aviation academy. Our plan is to own a leading pan-African aviation training centre by 2025 that will accept and train aviation professionals from all over the world."

A new student accommodation complex is being constructed that will have sports facilities,

Continued
on Page 38

The Magnificent Seventy...

«Ethiopian continue de grandir à 70 ans » – Page 39

CONTINUED FROM PAGE 37

including a large pool, which can also be used to train cabin crews in ditching rescue procedures.

The EAA comprises six independently run aviation training schools for cabin crews, marketing and ground operations, aviation maintenance, technical, leadership and pilot training. In the last four years, the Ethiopian Airlines Group has invested more than \$80 million to expand both the scope of the training and the intake capacity of the academy from more than 1,000 students per year to 4,000 by 2025.

Primary flight training is carried out on 10 Diamond Aircraft DA40 single-engine trainers, acquired in 2011, and the multi-engine (ME) course on two twin-engine Diamond DA42 NG aircraft, all of which are powered by Austro Engine AE300 engines using JetA-1 fuel.

In July 2014, Florida-based Africair delivered three new Cessna 172 Skyhawk TDs retrofitted with the Centurion CD-155 diesel engines.

The EAA has a comprehensive range of state-of-the-art flight simulators. These include a Diamond Simulation reconfigurable DSIM-40/42 NG flight navigation and procedures trainer (FNPT) level II simulator, a Flight Safety Boeing 737 full-flight simulator (FFS) and a reconfigurable Boeing 757/767 FFS.

There is also a B737 level 7 flight-training



Malawian to grow route network

Malawian Airlines, which is 49% owned by Ethiopian Airlines, plans to add several new destinations to its route network effective 1st June.

It will add domestic routes to Mzuzu, Karonga and Likoma Island, plus additional international routes, to the Kenyan capital Nairobi (served with Dar Es Salaam using the airline's single Boeing 737-800 at night), as well as Victoria Falls in Zimbabwe.

Kassim Geresu Habib, Malawian CEO, told African Aerospace during a visit to Lilongwe last week that the airline's long-term (15-year) plan included serving Dubai "in six years time."

Malawian started operating on 1 January 2014 with one Boeing 737-800 and a Bombardier Q400 turboprop leased from Ethiopian, and Geresu said that this fleet would be supplemented "by 1st June" with "a third type, a 30-seater."

This will serve Malawian domestic routes and Blantyre, which the 737 currently stops at on its flagship Jo'burg service. It will also serve "the thin market" in Mozambique.

device (FTD) for use by multi-purpose trainer (MPT) students.

A Dash-8 Q400 FFS was bought from CAE in 2011, while a CAE Boeing 787 7000-Series FFS is currently being installed in the EAA simulator centre, along with a CAE Simfinity B787 integrated procedures trainer (IPT) and a B787 virtual maintenance trainer (VMT) classroom with nine workstations. Each year, between 120 and 150 trainee pilots graduate from the pilot training school.

Established in 1967, the Ethiopian Aviation Maintenance Technician School has specialised in aviation maintenance training, consistently offering the highest industry standard for maintenance technicians. The EAA conducts basic and recurrent training programmes with a combination of classroom theory and hands-on practical training for entry-level employment of aircraft technicians.

Ethiopian Airlines maintains aircraft, offers engine and component overhaul, and operates repair and testing facilities with an all-Ethiopian workforce of more than 750 technical personnel, most of whom were trained in-house. The airline holds licences to maintain, repair and modify B737, B757, B767, B777, MD11, Bombardier Dash 8 Q400 and Fokker F-50 aircraft, plus



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SOMMAIRE

Ethiopian continue de grandir à 70 ans

Cette année, Ethiopian Airlines fête ses 70 ans d'existence. Elle est aujourd'hui la plus grande et la plus rentable des compagnies aériennes en Afrique. David Oliver nous raconte cette réussite remarquable.

La compagnie basée à Addis-Abeba a connu une décennie de croissance avec une augmentation remarquable de son chiffre d'affaires de 530%. Ethiopian Airlines a dorénavant d'ambitieux projets pour profiter de la croissance du trafic aérien en Afrique qui devrait croître de plus de 6% durant les prochaines années.

Ethiopian Airlines est actuellement sur la bonne voie pour réaliser son programme « 2025 Vision ». Il consiste à augmenter sa flotte de 72 avions actuellement à 140, le nombre de passagers de six millions aujourd'hui à 18 millions et à quadrupler sa capacité de manutention de marchandises, le nombre de stagiaires de même que son chiffre d'affaires.

Fin 2014, Ethiopian Airlines a réceptionné son dixième Boeing 787-8. La compagnie a confirmé un contrat de 2,1 milliards de dollars pour 20 Boeing 737 MAX, avec une option pour une quinze exemplaires. Elle a également annoncé une nouvelle route vers Los Angeles, en passant par Dublin, prévue pour juin 2015.

Par ailleurs, la compagnie compte mettre en place plusieurs hubs à travers l'Afrique. Il a ainsi pris 49% des parts d'Asky Airlines et de Malawi Airlines afin de créer un véritable hub.

Une composante essentielle de la « Vision 2025 » est l'académie d'aviation. EAA est devenue un centre d'excellence. Tewolde Gebremariam, le PDG d'Ethiopian Airlines, a déclaré que le développement des ressources humaines est l'un des quatre piliers. « Notre objectif est de posséder un centre panafricain de premier plan en 2025 pour

former les professionnels de l'aviation venant du monde entier ».

Au cours des quatre dernières années, le groupe a investi plus de 80 millions de dollars pour développer la formation et la capacité d'accueil de l'académie passant de 1 000 étudiants par an à 4000 en 2025. Entre 120 et 150 pilotes sont également formés chaque année à l'école de formation des pilotes.

□□□□

L'école des techniciens de la maintenance en aéronautique propose une formation de très haut niveau. Ethiopian Airlines détient une licence pour réaliser la MRO de plusieurs types d'avions (B737, B757, B767, B777, MD11, Q400 et Fokker F-50) et de moteurs (PW127, PW121 et PT6, CFM56 et peut être le GenX à l'avenir).

La Vision d'Ethiopian Airlines comprend aussi la construction d'un nouveau terminal de maintenance et de fret, d'un hôtel cinq étoiles, d'un nouvel espace de restauration et d'un nouveau bâtiment son siège.

En février 2015, Boeing s'est joint à Ethiopian Airlines et trois organisations humanitaires pour offrir plus des fournitures et d'équipements médicaux aux organismes de bienfaisance et aux hôpitaux en Éthiopie et en Somalie.

L'Éthiopie, l'un des pays les plus stables en Afrique, enregistre la troisième meilleure croissance au monde. Le gouvernement encourage Ethiopian Airlines à jouer un rôle majeur dans sa stratégie de croissance à long terme.

PW127, PW121 et PT6 turboprop et CFM56 turbofan engines.

In future it also plans to be capable of maintaining the B787's General Electric Gen X turbofan engines.

The Ethiopian Wire Kit Harness Manufacturing Plant (WKHP), located at Bole International Airport, was established in June 2009 to manufacture various types of wire harnesses and cable assemblies for B737, B747 and B777 aircraft, the majority of which are supplied to Boeing.

In addition to the expansion and upgrading of the EAA, 'Vision 2015' includes the construction of a new cargo terminal maintenance hangar, a five-star hotel, a new catering facility, and a new headquarters building.

Construction of an \$87 million cargo terminal 2 and apron by the German company Unitechnik Systems, and Varnero Construction, is scheduled to be completed within the next two years. It will have the capacity to accommodate 600,000 tonnes of cargo per annum, with an apron parking capacity for up to five B747-800-class aircraft at a time. The terminal will also have cold storage capacity to accommodate some 300,000 tonnes of temperature-controlled perishable cargo per annum. Completion of cargo terminal 2 will be followed by the construction of cargo terminal 3, which will have an annual capacity to accommodate 600,000 tonnes.

□□□□

In June 2014, Ethiopian Airlines signed a loan agreement with Agence Française de Développement (AFD) for €50 million (\$56 million) to finance the construction of the new cargo terminal.

Work on the main building, hangar, expansion of the runway and a hotel is under way with construction by the Chinese Road and Bridge Corporation (CRBC) and Addis Engineering.

The new 7,200sqm, 25metre-high maintenance, repair and overhaul (MRO) hangar will accommodate a single wide-body aircraft or two narrow-body aircraft.

Meanwhile, the Italian company, ELMI Olindo Contractors, completed the construction of a \$7 million light aircraft maintenance hangar, capable of accommodating a single narrow-body aircraft, in March 2015.

The China Communications Construction Company (CCCC) began work on the Addis Ababa Bole International Airport passenger terminal expansion project in 2012. The project is aimed at transforming the passenger terminal into a state-of-the-art terminal and boosting its capacity substantially.

At the same time, a new ramp to accommodate 24 aircraft was completed, with another ramp being built for an additional 14 aircraft. A loan for the \$250 million project was secured from the EXIM Bank of China.

Apart from overseeing its growing scheduled



The Ethiopian Airlines Flight Operations and Simulation Centre at Bode International Airport.

passenger and cargo operations, Gebremariam is on the board of trustees and advisory council of Airlink, a 24/7 humanitarian response organisation that links pre-qualified non-profit organisations with airlines. Ethiopian, as a pan-African carrier with the most extensive network on the continent, provides vital global air connectivity that is contributing to the socio-economic development of the continent.

In February 2015, Boeing joined with Ethiopian Airlines and three non-profit humanitarian organisations to deliver more than 4,000lb (1,814kg) of medical supplies and equipment for charities and hospitals in Ethiopia and Somalia. The deliveries, carried on the ferry flight of Ethiopian's B787 Dreamliner, were made to a number of medical institutions via Vital Voices Global Partnership, Horn of Africa Neonatal Development Services (HANDS) and Seattle Alliance Outreach (SAO).

One of the most stable countries in Africa, Ethiopia has the third fastest-growing economy on the world, and this is reflected by its government's long-term growth strategy in which Ethiopian Airlines is being encouraged to play a major part.



Relative newcomer Astral Aviation does not look like it can go wrong at the moment. As Tom Pleasant reports, the Kenyan freighter operator is expanding rapidly across the continent.

Loads of potential

Where other all-cargo carriers have been struggling recently, Kenya's Astral Aviation has been seeing a solid growth.

It recently became the first all-cargo airline to join the African Airlines Association (AFRAA) and its CEO, Sanjeev Gadhia, said was very satisfied, both with Astral's success and the benefits that come from being a member of umbrella organisation.

"One of the best things we did in 2014 was joining AFRAA," he said. "We should have done it a long time ago. It meant we were able to take part in the joint fuel-purchase programme. Members pool their fuel requirements and AFRAA finds someone interested in bidding for it. By buying in bulk with Kenya Airways, Ethiopian and others, we made big savings. Membership to AFRAA is only \$8,000 but in 2013 we saved more than \$250,000 from the fuel programme! We definitely found a benefit to membership, and we're enjoying it very much."

Gadhia said there were other associated plusses, such as fuel suppliers giving the programme members beneficial credit terms – terms the airlines would not have been offered if they had approached the suppliers as individual companies.

AFRAA is organising a similar programme for ground-handling, which Gadhia says should start to provide solid results later in 2015.

In terms of cargo, he has also made a recommendation to AFRAA to set up a taskforce of representatives from every member airline's cargo department. They would look at ways members could cooperate among themselves, making the air cargo business easier for all. If ratified, which he said he was optimistic it would be in 2015, the taskforce would then become its own AFRAA committee after two years, giving cargo a larger voice and more influence in the association.

For Astral itself, Gadhia said: "We had a very good year in 2014; our best ever. That was mainly thanks to us launching a Europe service, as was our flying into Pemba

(Mozambique), where there is a lot of oil and gas; Juba (South Sudan) and Mogadishu (Somalia)."

The airline has big plans for 2015, he revealed, looking at hubs and networks in particular. "There are no roads crossing Africa, no rail network," he said. "From Alexandria to Cape Town is 12 hours and it's the same east to west. The continent is massive, with 55 countries, each with its own civil aviation authority, currency, culture and language.

"That's why we really need partnerships and agreements to make it easier to do business here.

"But, first, we need connections, because the biggest challenge with cargo is that it never moves in two directions. We want to fly a 747 from Nairobi into Europe filled with perishables and then fill it with 100 tonnes of cargo for all three hubs. Then it will fly to Lagos, drop off 33 tonnes there, then on to Johannesburg and drop 33 tonnes there and then back to Nairobi for the final 33 tonnes. Then it will fill up with perishables and back to Europe."



However, before developing more services to non-African regions, Gadhia says it is important to establish the African networks first. "We need to set up the local networks before we develop more intercontinental services, so our current focus is expansion in Africa, in particular west Africa, by creating two more hubs: Lagos and Johannesburg to join Nairobi.

"Lagos will be up and running in the first quarter of 2015 and then we want to start operating to and from Kinshasa, Brazzaville and Luanda.

"We're also in talks with other airlines, such as Taag Angola, for a codeshare and we're hoping for the same with ECAir. We need to cooperate with our fellow African airlines before we think about partnering with the guys from the Middle East and Europe."

"Our current focus is expansion in Africa, in particular west Africa, by creating two more hubs..."
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Transportes Aéreos de Cabo Verde is the glue that binds the Republic of Cabo Verde – an archipelago of 10 volcanic islands in the Atlantic Ocean – with the rest of the world.

*However, as **Victoria Moores** reports, to maintain those essential 57-year-old links, the tiny carrier needed to shape up.*

SILVA SERVICE

«Une petite compagnie aérienne insulaire avec de grandes ambitions» – Page 44

Former government minister Joao Pereira Silva was quietly enjoying his retirement when he was asked to step in and rescue Transportes Aéreos de Cabo Verde (TACV) in March 2012.

Never one to turn down a challenge, he accepted. “Sometimes challenges are very appealing,” said Silva, who is now firmly established as TACV chairman and CEO. “I don’t want to leave before completing the job.” And it is a big job.

TACV was facing a fleet repossession after years of losses. “It was not only loss-making, the organisation was very sick, so the government looked for someone from the country with enough leadership to conduct a restructuring of the company,” explained Silva.

Fortunately, Silva had a good pedigree. He served as Cape Verde Minister for Rural Development for 14 years between 1977 – shortly after Cape Verde gained independence – and 1991. He then took some time off from government work to develop his own consultancy business, before returning as minister for the economy between 2004 and 2006. After that, he retired and did a bit of consultancy from time to time.

“I didn’t have any background in aviation. In 2011, TACV – a small company with five aircraft

– was in very, very bad condition. They tried to change the fleet but it was badly managed. The company was going to close,” Silva explained.

With 57 years of continuous operations under its belt, TACV ranks among Africa’s veteran airlines alongside the likes of EgyptAir, Ethiopian Airlines, Royal Air Maroc and South African Airways. “In west Africa, I think all the [airline] companies now operating are new, the others have closed. Only TACV has survived,” said Silva.



TACV desperately needed to restructure and Silva was the man for the job.

He first worked to stem TACV’s losses by resizing the airline, which currently carries around 500,000 passengers annually, and rebuilding its strategic plan. This should all be completed by the end of the first quarter of 2015.

“In 2012, we had the worst results in our history, but we have changed a lot since then,” he said. “Our financial statements are getting better. We cut our losses by more than 50% in 2013 and, in 2014, we managed to restructure our debts.”

Cabo Verde had no money to plough into

TACV so the airline raised funds through a sale and leaseback on two of its ATRs to clear its debts to the banks, which funded the aircraft acquisition. In June 2014, TACV sold its ground-handling business to the airport management company to clear its debts with them and, last November, it split its domestic and international operations into wholly owned, separately managed subsidiaries in preparation for privatisation.

“The government is trying to attract investors. We are preparing the company [for privatisation]. If we are successful in this restructuring and can demonstrate that we can make a profit, maybe some investors will come,” said Silva.

It is no coincidence that TACV’s domestic activities have been separated ahead of the planned privatisation. The Cabo Verde Government is willing to sell up to 100% of the international operation but it wants to retain at least 51% of the domestic subsidiary to safeguard lifeline links between the islands of the archipelago.

“People living here must be able to connect between the islands. It is a question of access to education, healthcare and so on. The Government wants to keep their hands on this,” explained Silva.



“The Government is trying to attract investors. We are preparing the company for privatisation. If we are successful in this restructuring and can demonstrate that we can make a profit, maybe some investors will come.”
said Silva.

JOAO PEREIRA SILVA

There is word that the TACV privatisation will be concluded by mid-2015, with China’s Okay Airlines and TAAG Angola being tipped as potential buyers. However, Silva has a realistic view of the process. “Political will sometimes goes faster than reality. There is a strong political will to privatise TACV and they have made statements that this will happen in mid-2015, but to sell something you need two parties: one who sells and the other who buys.”

He explained that the Cabo Verde Government has approached Okay Airlines and Angolan investors, including TACV codeshare partner TAAG, about a potential investment. However, this depends on the success of TACV’s restructuring and whether the would-be investors want to take the process any further.

In the near-term, TACV is working to slim its workforce from 500 to 400 staff through early retirements and voluntary redundancies. “We plan to finish contracts with about 100 employees. For domestic and international, we will be about 400 [people].”

By 2020, TACV is aiming to triple its passenger numbers from 500,000 annually to 1.5 million.

The Cabo Verde archipelago is located in the Atlantic, 570km (354 miles) off the coast of west Africa.

Continued
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Silva plans to tap this geographical position and develop Cabo Verde's domestic and international connectivity. This will involve a boost to TACV's scheduled network and a decreased reliance on charter services.

"Over the years, we have been a point-to-point company, with no connecting traffic. Under our strategic plan, we are proposing to transform our company using sixth freedoms to create a hub in Cabo Verde," he explained. "

We will switch from point-to-point to connections. By 2020, about 26 million people will overfly Cabo Verde. We want a very small number of those passengers to stop over," said Silva, who cites Icelandair and Panama's Copa as examples of airlines that have achieved similar transitions.

"This is the only way to face competition from low-cost carriers. We are three to four hours from Europe, so they can come to Cabo Verde. TACV has to transform to a new business model."

To support this growth, TACV plans to expand its fleet from five aircraft – a single ATR 42-500 (currently grounded awaiting repair), two ATR

72-500s, a Boeing 737-800 and a 757-200 – to 11 aircraft by 2020.

Its future domestic fleet will comprise four ATR 72s and the ATR 42 as a back-up, while the international fleet will be made up of seven, single-type jets. With the 757 now out of production, TACV will seek a 5,000nm range replacement, possibly the A320neo or 737 MAX.



"It is a very conservative plan," said Silva. "We want to take small steps, to be sure they will be sustainable." After last time, the fleet change needs to be very carefully managed. Last time TACV tried to transition its fleet, it went into default and ended up facing aircraft repossession by its lessor, International Lease Finance (ILFC).

Despite its small size, Cabo Verde boasts four international and three domestic airports – that is seven airports, serving a total population of 500,000 people. TACV used to be based on Sal, an island in the northeast of the archipelago, but

today its headquarters and main base are located in Cabo Verde's capital city, Praia, on the largest and most populated island, Santiago.

"We don't know where it will be in 2016 yet. Sal has the best runway – the other airports have runway limitations – but Sal is completely open. I don't know if we can return to Sal or not. It is a management decision, but it is political too," said Silva.

However, if there is one thing Silva has experience of, it is politics. He admits his transition to the airline industry has been a steep learning curve. "I didn't have any idea [what it would be like]. When you are a customer, you don't see what's going on in areas like safety and maintenance. Also, you can manage finances, but corporate culture is more difficult to change."

Back in 2012, Silva was happily retired, with no real idea of what he was letting himself in for. If he knew then what he knows now, would he still taken up the challenge? He smiles and replies: "Yes, because I feel I am more prepared now than I was before."

SOMMAIRE

Une petite compagnie aérienne insulaire avec de grandes ambitions

Transportes Aéreos de Cabo Verde (TACV) est la compagnie nationale de la République du Cap-Vert située dans l'océan Atlantique. Véritable lien de cet archipel de dix îles avec le reste du monde, TACV a eu besoin, comme l'explique Victoria Moores, d'un électrochoc pour assurer sa survie.

L'ancien ministre du gouvernement du Cap-Vert, Joao Pereira Silva, a été sollicité en mars 2012 alors qu'il passait une retraite paisible pour sauver la compagnie nationale. TACV avait connu plusieurs années de pertes consécutives.

Selon Joao Pereira Silva, il ne s'agissait pas seulement des pertes de la TACV mais aussi de son organisation et du renouvellement de sa flotte d'avions défectueux. Le gouvernement souhaitait embaucher un capverdien avec un sens de leadership pour mener à bien la restructuration nécessaire.

Avec 57 années d'opération à son actif, la TACV se classe parmi les compagnies aériennes les plus anciennes du continent africain comme EgyptAir, Ethiopian Airlines, Royal Air Maroc ou encore South African Airways.

Même si Joao Pereira Silva n'avait pas d'expérience dans le domaine du transport aérien, il a tout d'abord œuvré pour endiguer les pertes de la compagnie. Pour cela, il a redimensionné la compagnie aérienne depuis 2012 et développé un nouveau plan stratégique devant être finalisé à la fin du premier trimestre 2015.

« En 2012, TACV a enregistré les plus mauvais résultats de son histoire. Son état financier est désormais meilleur, la compagnie ayant réduit ses pertes de plus de 50% en 2013 et assuré une restructuration de ses dettes en 2014. »

Pour améliorer ses résultats, elle a levé des fonds à travers une cession de deux de ses ATR pour effacer

ses dettes envers les banques. En juin 2014, elle a aussi vendu ses activités de manutention au sol à la société de gestion de l'aéroport. Ses opérations domestiques et internationales ont enfin été scindées en deux filiales en vue d'une privatisation de la compagnie.

« Le gouvernement du Cap-Vert tente d'attirer les investisseurs. Si nous réussissons la restructuration de la TACV et si nous pouvons démontrer que la compagnie peut générer des profits, certains investisseurs pourraient venir », affirme Joao Pereira Silva.

Le gouvernement est prêt en effet à céder jusqu'à 100% des opérations internationales de la TACV mais il veut conserver au moins 51% de la filiale des vols domestiques afin de préserver les liens vitaux entre les îles de l'archipel.

Il se murmure que sa privatisation pourrait être conclue d'ici mi-2015. La compagnie chinoise Okay Airlines et TAAG Angola seraient des acheteurs potentiels. Le gouvernement capverdien a approché Okay Airlines et des investisseurs angolais pour des partenariats ou des partages de codes avec TAC. Tout dépend cependant de la réussite de la restructuration de la compagnie.

La compagnie va également réduire ses effectifs de 100 employés par le biais des retraites anticipées et des départs volontaires.

TACV a des objectifs ambitieux et compte tripler le nombre de ses passagers pour passer de 500 000

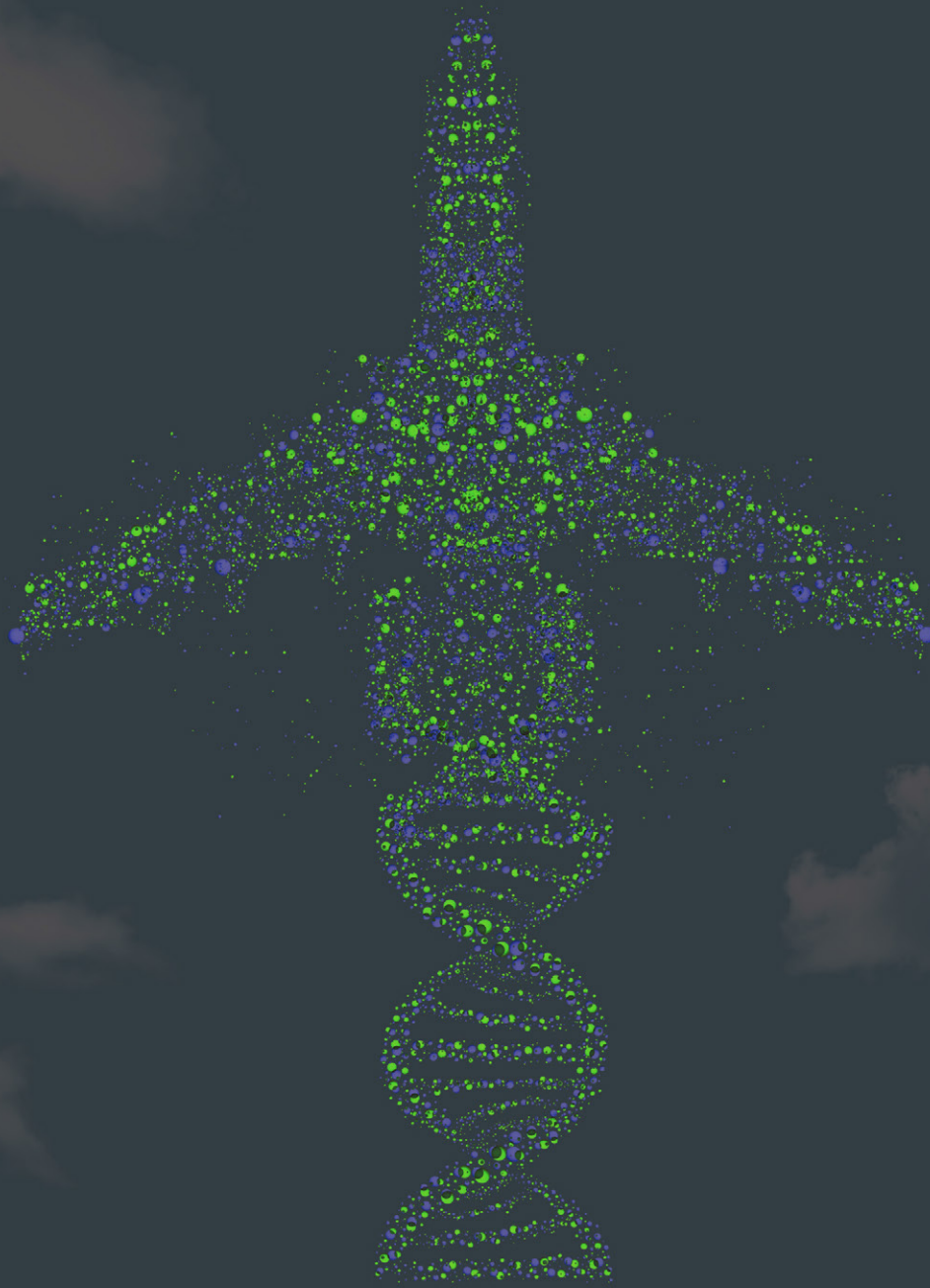
aujourd'hui à 1,5 millions en 2020. Pour cela, Joao Pereira Silva prévoit d'exploiter la position géographique du Cap-Vert et de développer sa connectivité nationale et internationale.

« Nous avons opéré des routes point à point au fil des années sans un trafic de correspondance. Avec notre plan stratégique, nous allons créer un véritable hub au Cap-Vert. »

Environ 26 millions de passagers vont survoler le Cap-Vert en 2020 et Joao Pereira Silva souhaite capter un petit nombre de ces passagers. Les compagnies comme Icelandair et Copa Airlines (Panama) sont des compagnies qui ont réussi la transformation de leurs « business model ». Le Cap-Vert est à trois à quatre heures de l'Europe, c'est donc une opportunité pour attirer plus de passagers vers l'archipel.

Pour accompagner cette croissance, la TACV envisage d'agrandir sa flotte de cinq avions actuellement (un ATR 42-500, deux ATR 72-500, un Boeing 737-800 et un 757-200) à onze avions d'ici 2020. Sa flotte domestique sera composée de quatre ATR 72 et d'un ATR 42 tandis que sa flotte internationale comprendra sept avions. La compagnie compte aussi remplacer son B757 avec un choix éventuel pour l'A320neo ou le B737 MAX.

Pour accueillir cette évolution du trafic, le Cap-Vert dispose de pas moins de quatre aéroports internationaux et de trois aéroports domestiques, ce qui fait sept aéroports pour une population totale de 500 000 habitants.



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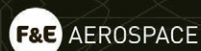
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Politics the real price of Egypt's Rafale purchase?

Egypt has become the first export customer for the French Dassault Rafale fighter-bomber. Jon Lake explains how the deal came about.

Dassault signed a €5.2 billion (US \$5.9 billion) contract for 24 Rafales, a DCNS Group FREMM class multi-mission frigate and an undisclosed package of MBDA missiles in Cairo on February 16.

Negotiations with India for 126 Rafales continue, and Dassault hopes for further orders after unsuccessful attempts to sell the aircraft to Korea, Singapore, Brazil, Switzerland and the UAE.

Egypt was the first export customer for the Dassault Mirage 2000 in 1981 and there have been high-level discussions about replacing its fleet of 18 aircraft for much of the past year.

Detailed discussions began in December, with French president François Hollande and his Egyptian counterpart, Abdel Fattah el-Sisi, agreeing the essential elements when they met at the funeral of the late Saudi King Abdullah in January 2015.

Some analysts have suggested that the arms deal with France is more about politics than security, with Egypt keen to demonstrate that it does not rely exclusively on the US for its military equipment, and that it will stand up to US Congressional pressure (backed by the withholding of such equipment) to change its policies on dealing with dissidents.

The Egyptian Air Force is large and well equipped, with more than 250 F-16 fighters, as well as US-supplied Apache attack helicopters.



Egypt is keen to fly the Rafale and show the frigate when it opens a new waterway on the Suez Canal in August. The warship (the Normandie) is being diverted from a French Navy order, with its systems translated into English and Arabic and the naval Cruise missile capability removed.

To meet Egyptian timescales, the first batch of three Rafales will be diverted from Armée de l'Air production, with nuclear missile capability and NATO standard communications removed. Three more Rafales will be delivered to Egypt in late 2015 or early 2016 and another three in 2017, with the remaining 15 to be delivered by mid-2019.

Exports are vital for Dassault if it is to sustain long-term production of the Rafale amid pressure on military budgets at home. Last year the French Government announced that it would slow the pace of Rafale deliveries from 11 per year to just 26 in total over the next five years. Exports promise to allow production to remain at the more economically viable rate of 11 per year.

There was no formal competition for the new Egyptian fighter, though there were, reportedly, exploratory contacts between Egypt and the Eurofighter consortium. Questions had arisen, however, over the availability of rapid export licences from Britain and Germany in the face of concerns over human rights and the coup that deposed Egypt's democratically-elected president.

At the end of the day, pricing is believed to have been the most critical factor in Egypt's selection of the Rafale, with the Egyptian economy under significant pressure.



Major General Mohammed Abbas, chief of the Egyptian Air Force's operations department, said he was looking forward to taking delivery of the Rafale, which he described as a "great aircraft with many useful capabilities", but added that "Rafale was the aircraft that we could afford and not necessarily the aircraft we wanted".

The Rafale, frigate and missile orders will each be covered by specific contracts rather than an over-arching global deal, and Egypt will pay for half of the total, with the other half financed by bank loans, reflecting the guidance set by the Organisation for Economic Cooperation and Development.

News website Al-Youm Al-Sabea (reported by Reuters) said that Saudi Arabia, Kuwait and the United Arab Emirates have pledged to deposit \$10 billion in Egypt next month, taking care of the Egyptian contribution, while BNP Paribas, Credit Agricole and Société Générale are the banks raising the loans, according to French media.

The bank loans will be insured by Coface, the French state-backed export credit guarantee department, meaning that the French Government would repay the banks and the manufacturers if Egypt failed to make its loan repayments.



Above: Vampire with (inset) Oryx and AW109 helicopters hoisting the South African flag.



SAAF and the big bang theory

Two recent events have served to highlight the South African Air Force (SAAF) operational capability.

Jon Lake reports.

An "intimate gathering" was how SAAF billed a showcase to its operational capabilities, which took place at the Roodewal weapons range outside Polokwane in Limpopo.

Many of the international air force chiefs attending the following day's Africa Aerospace and Defence (AAD) exhibition at AFB Waterkloof, were invited to witness the SAAF's air capability demonstration (ACD)

The 80-minute firepower demonstration began at dusk, with the insertion of Pathfinders to collect intelligence and mark targets. They parachuted from a C208 Caravan at 6,000ft.

A Hawk, equipped with a Vinten reconnaissance pod, flew over, gathering intelligence. An escorting Gripen was targeted by a surface-to-air missile and released decoy flares in response.

A number of Army exercises followed, with troop insertions, supply drops, and mortar attacks.

Two Gripens engaged a Hawk in a simulated two-against-one dogfight, before Oryx medium-transport helicopters dropped off and picked up troops and also demonstrated fire-fighting using under-slung Bambi buckets, while an AgustaWestland AW109LUH demonstrated its observation and ground forces coordination capabilities.

A combat search and rescue (CSAR) mission was demonstrated after a BK117 helicopter simulated an emergency landing, having been 'hit' by ground fire. Oryx helicopters inserted and extracted troops and recovered the BK117 pilot, while Rooivalk attack helicopters provided covering fire with 20mm cannon and 70mm rockets, and a Hawk fired its 30mm cannon and dropped 120kg bombs.

Three Gripens then dropped 250kg bombs on the range before a final flypast by all of the participating aircraft.

A Caravan modified for intelligence, surveillance, and reconnaissance (ISR) under 'project coiler' circled overhead throughout, beaming imagery to a giant screen.

Since then, the SAAF has celebrated its 95th anniversary, holding a parade at AFB Waterkloof to commemorate the event.

South Africans claim that the SAAF's formation in 1920 makes it the second oldest air force in the world.

The ceremony doubled up as a commissioning parade for a

graduating class of 31 SAAF officer cadets. The chief of the SAAF, lieutenant general Fabian Z 'Zakes' Msimang, attended, presenting the sword of honour to the candidate officer who had most excelled during her training. He also gave a speech to the assembled officers, dignitaries and audience.

The flypast was opened by a pair of SAAF helicopters – an Atlas Oryx carrying the SAAF ensign and an AgustaWestland AW109 LUH carrying South Africa's national flag.

Following the parade, and Msimang's address, the remainder of the flypast was undertaken by aircraft from the SAAF Museum, operating from their home at AFB Zwartkop, South Africa's first air force base. The SAAF Museum still uses the original imperial gift hangers as exhibition halls.



The SAAF Museum aircraft flew over in several waves. A rotary-wing formation consisted of two Alouette IIIs, an Alouette II and a Puma. This was followed by a Piaggio P166 Albatross flanked by an Atlas Bosbok and an Atlas Kudu. Next came a formation of five North American T-6 Harvards, with a single Vampire T.Mk 55 bringing up the rear.

The lack of operational SAAF aircraft was put down to limited funding and availability of serviceable aircraft, though some spokespeople tried to present it as having been a deliberate decision, intended to showcase 95 years of SAAF history.

Today's SAAF falls far short of the force envisaged in the 1998 defence review, which recommended that the air force should have 32 medium jet fighters and 16 light fighters, five dedicated in-flight refuelling and electronic warfare aircraft, 16 light reconnaissance aircraft, six long-range maritime patrol aircraft and 10 short-range maritime patrol aircraft, a squadron of unmanned aerial vehicles (UAVs), 44 transport aircraft, nine VIP and VVIP aircraft, 12 combat support helicopters, five maritime helicopters, and 96 transport helicopters.

Actual numbers of aircraft on charge in all of these roles are much lower, and relatively few of the aircraft are actually serviceable and airworthy at any one time.

Albatross flanked by Bosbok and Kudu aircraft.



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Though no order has been officially announced, there have been a number of reports suggesting that the South African Air Force (SAAF) has selected the Airbus C295 to meet its requirements for both a light to medium capacity tactical transport aircraft and a maritime patrol aircraft.
Jon Lake reports.

C-change for SAAF

The most important near-term priorities for the SAAF, initially set out in South Africa's 2012 defence review and restated in 2014, included strategic and light-to-medium tactical airlift capabilities, and maritime reconnaissance aircraft, as well as air-to-air refuelling tankers and unmanned air vehicles.

From the outset, the SAAF pushed for the selection of a common airframe to meet the maritime reconnaissance and light-to-medium tactical airlift aircraft requirements, hoping that a high degree of commonality would lead to reduced support, training and infrastructure costs.

The acquisition was code-named 'project saucepan', though this was subsequently divided into two separate parts with 'project Metsi' covering the maritime patrol/surveillance requirement and 'project Kiepie' looking after the transport aircraft.

South Africa's existing maritime reconnaissance and transport fleets consist of a variety of older aircraft types that are becoming increasingly obsolete and progressively harder to support.

The SAAF inherited CASA 212s from the air forces of the former homelands (thuislanden) of Bophuthatswana, Ciskei and Venda when these were reintegrated into South Africa following the end of apartheid in 1994.

The aircraft (five C212-200/300s and a CN235-10) were added to the SAAF inventory

and were taken on charge by No44 Squadron at AFB Waterkloof. Of these, three C212s remain in service, but they have suffered from poor serviceability due to spares availability and obsolescence.

The remainder of the SAAF's medium transport fleet consists of even older aircraft, in the shape of three C-47TP Turbo Daks. These serve with No35 Squadron at AFB Ysterplaat, and include one aircraft previously used in the photo/survey role. This was converted back to the basic transport configuration following the loss of two of the squadron's C-47TP transports during 2012.

The SAAF took delivery of some 84 C-47 Dakotas during the Second World War, but many were retired after the conflict.



During the 1970s, about 22 more were acquired from various sources, and throughout the 1970s and 1980s, the C-47 formed the backbone of the SAAF's transport force.

On the retirement of the Avro Shackleton in 1984 (the result of sanctions against South Africa), C-47s were pressed into service in the maritime patrol role. These were perhaps inevitably nicknamed as 'Dakletons'.

By the end of the 1980s, South Africa had taken the decision that the Dakota would be retained for service into the new millennium, and

to facilitate this, the SAAF launched 'project felstone', converting 38 of the survivors to C-47TP Turbo Dak standards at AFB Swartkop and AFB Ysterplaat.

Though there were a number of existing Turbo Dak conversions available (from Basler, Dodson International, and Conroy), embargoes meant that the SAAF had to 'go it alone', using its own resources to design and embody the modifications.

The first of the newly converted Douglas C-47TP Turbo Dakotas was rolled out at Swartkop on August 26 1991, after a four-year conversion.

This saw the Dakota's 1,200hp Pratt & Whitney R-1830 Twin Wasp 18 cylinder two-row radial piston engines replaced by 1,424shp Pratt and Whitney PT6A-65AR turbine engines, and the aircraft also gained an extended forward fuselage (using a 40in plug) to maintain the aircraft's centre of gravity.

The centre section was reinforced, and modified wingtips were fitted. The conversion programme ran until 1997.

Following the end of the apartheid era, South Africa's armed forces were reduced in size and rationalised, and about 20 of the newly converted C-47TPs were sold off to civilian operators. They proved themselves to be a highly effective workhorse for African operations, providing an aircraft capable of lifting a five-tonne payload, yet able to take off and land on semi-prepared 300-metre-long gravel strips.



From the outset, the SAAF pushed for the selection of a common airframe to meet the maritime reconnaissance and light-to-medium tactical airlift aircraft requirements, hoping that a high degree of commonality would lead to reduced support, training and infrastructure costs.

The success of the ex-SAAF C-47TPs has allowed Braddick Specialised Air Services International (BSAS) to successfully market the type, and to produce further conversions, some of them using more powerful versions of the PT6 powerplant.

The SAAF C-47TPs were used for a variety of roles, with transport aircraft being augmented by dedicated maritime patrol platforms, and by single examples in photo-survey and electronic warfare (EW) configurations. All were eventually gathered together within No35 Squadron at Ysterplaat.

Though the maritime reconnaissance aircraft were relatively austere equipped, they have proved useful, able to fly at low altitudes and with a 4,800km range or 14hr endurance. Five maritime patrol Block 2 C-47TP-MP aircraft remain in service with No35 Squadron at AFB Ysterplaat.

The single C-47TP-EW is also still in service. This aircraft was modified by Grintek System Technologies for electronic intelligence (ELINT) and communications intelligence (COMINT) duties, and can be identified by the array of antennae on the upper and lower fuselage. It has no windows on the port side of the fuselage. This aircraft played a significant part in monitoring the military situation in Angola during South Africa's long-running border war, and continues to operate monitoring other nations along South Africa's border.

Under 'project Metsi' the SAAF has been seeking a replacement for the maritime surveillance C-47TPs. A number of potential replacements have been offered to, and in some cases evaluated by, the SAAF – including the Airbus Military C295, the ATR 42MP Surveyor, the Bombardier Q400 MSA/MPA, and the Dornier Do228 (with different Do228 configurations offered by RUAG and Hindustan Aeronautics). A decision was originally expected in 2015-2016, though it now seems as though the C295 has been selected to replace all of South Africa's C-47TPs and CASAs.



The number of aircraft, their fit, and the precise variants to be delivered all remain unknown but, according to SAAF personnel quoted on the South African Air Force's unofficial website, two initial airframes are expected to be delivered in January 2016.

In addition to the C-47TPs and CASA C212s, the SAAF also uses the C-130 Hercules, nine of which are notionally in service with No28 Squadron at Waterkloof. South Africa originally received seven C-130Bs in 1963 and received two more ex-USAF C-130Bs, which were put through the 'project ebb' upgrade before delivery. 'Project ebb', which ran from 1997, saw the SAAF Hercules fleet upgraded to C-130BZ standards, with a major avionics improvement and a 20-year service life extension.

After 50 years in service, the SAAF C-130s are becoming increasingly tired. Serviceability and availability is poor, and though Flight International's Milicas database gives a figure of six aircraft in service, actual availability is much lower.

When a C-130 was required to evacuate the survivors of a building collapse in Nigeria late last year, the C-130BZ being displayed at the Africa Aerospace Defence Airshow (AAD), wearing special tail markings celebrating 20 years of democracy, had to be dispatched, and there was no other C-130BZ available to replace it.

The C-130BZ lacks the payload, range, column and cargo compartment cross-section for many missions, and South Africa has increasingly hired commercial Ilyushin Il-76 and Antonov An-124 transports to support peacekeeping missions.

The new generation C-130J would share many of the same limitations and so South Africa ordered eight A400Ms to replace its Hercules. A letter of intent was signed in December 2004, followed by an unfinalised agreement in April 2005 and a finalised contract in December 2006. However, these aircraft were cancelled in 2009 on cost grounds.

Recently, there have been reports of renewed South African interest in the A400M, and of talks between South Africa and Germany that could see the SAAF taking over some Luftwaffe A400M production line slots.



The new, 25kg Mwari UAV is named after a Shona God and is based on Paramount's AHRLAC aircraft.

PARAMOUNT PICTURES A

South Africa's Paramount Group is aggressively expanding its unmanned aircraft systems portfolio.

Jon Lake has been taking a look.

South Africa was an early adopter of unmanned aerial systems (UAS) technology, first using it in the 1980s.

During the country's first non-racial elections in 1994, Denel Seeker UAVs were deployed over urban areas to monitor the vote – becoming the first unmanned aircraft to fly in airspace normally reserved for manned aircraft.

Appropriately enough, South Africa's Paramount Group is now working on producing a new generation of UASs for domestic use, and for export.

Founded in 1994 and concentrating on ground-based systems, Paramount expanded its air portfolio through the acquisition of surplus South African Air Force Mirage F1s in 2006, subsequently gaining a 19% stake in Aerosud in 2009, and acquiring Advanced Technologies and Engineering (ATE) in 2013.

Aerosud's military business was completely acquired in 2014, becoming Paramount Aerospace, while the former ATE has become Paramount Advanced Technologies (PAT).

ATE was already involved in the unmanned systems business, having produced the Vulture Tactical UAV to meet a South African Defence Forces' requirement for target acquisition and 'fall-of-shot' detection.

Deliveries began in 2005 and the Vulture was

developed into the Ukhozi UAV, which was able to fly in non-segregated airspace in compliance with South African CAA regulations.

ATE then worked on the Sentinel and Vigil tactical UAVs and on the Kiwit and Roadrunner Mini UAS platforms.

As PAT, the company is building on some 30 years of UAV experience by ATE, and has continued to develop the Sentinel and Roadrunner, while the Paramount Civet appears to be a development of the older Kiwit.

At the Africa Aerospace and Defence (AAD) 2014 exhibition at Air Force Base Waterkloof, the Paramount Group put what it described as "three new UAV systems" on display. Two of these were actually aircraft that have been under development since 2008, but the largest, known as the Mwari, seems to be genuinely new.

The 25kg Mwari is named after a Shona God and is based on the configuration of the Advanced High Performance Reconnaissance Light Aircraft (AHRLAC) that was also unveiled at AAD.

Paramount built a quarter-scale model of the AHRLAC and flew it about 80 times in support of the full-scale aircraft development programme. The company quickly realised that this model would make an ideal basis for an unmanned platform, and two prototype Mwari vehicles were constructed. They were finished a couple of

months ahead of the type's launch at AAD, according to Jan Vermeulen from PAT business development.

The resulting Mwari is a medium-range small UAV system with a flight time of about four hours and an operational range out to 40km (limited by line of sight). The aircraft carries its primary sensor in a nose-mounted turret.

The 'new' Roadrunner UAV was originally unveiled with the Sentinel at AAD 2008, though at that time it was lighter – being described as a 6kg mini UAV capable of lifting a payload of 1kg for between 45 minutes and an hour. The weight of the Roadrunner is today given as 15kg, with an endurance of 45 minutes using an electric motor, or of two hours when powered by a 'fuel engine'.

Then, as now, the Roadrunner featured a 1.5metre-span rhomboid wing. This confers higher strength while reducing the overall size of the airframe by comparison to conventional designs with similar lift characteristics. It also contributes to the aircraft's high-speed range, (70-300km/h), which allows it to transit quickly before loitering in the target area.

Catapult-launched, the Roadrunner can be arrested in a specially rigged net, or can belly land on an inflated cushion.

Paramount has tested the Roadrunner with electric or petrol engines, and with propellers and ducted fans. A turbine engine is an option. At AAD, Paramount said that it expected the aircraft to be ready for production by the first quarter of 2015.

The last of the trio of supposedly new products was the hand-launched, man-portable, 5kg Civet



BRIGHT FUTURE FOR UAS



The hand-launched Civet is already in service.

tactical UAV, which is actually already in service in Namibia's national parks and with a number of surveying companies.

The Civet appears to be a derivative of the ATE Kiwit, which was a 3.5kg hand-launched UAV capable of carrying a 1kg payload for up to 60 minutes. The Kiwit was supplied to an undisclosed Asian country in 2009 to equip its special forces.

It can be controlled from a ruggedised laptop (which is also compatible with other PAT mini UAVs). This shows the mission plan on a digital map with aircraft position and an indication of the camera footprint.

A single operator controls the Civet and it can be readied for flight in five minutes. The aircraft typically follows a pre-programmed flight plan, though the operator can adjust the flight path at any time. The Civet uses the same sensor package as Mwari and Roadrunner, and records the entire mission on video, but is also capable of on-board high-resolution (16 megapixel) image capture.

The remaining Paramount UAV consists of the Sentinel family of air vehicles. The Sentinel 500M was the first of the new family and was displayed at AAD 2008. Developed from the 135kg Vulture, the 150kg Sentinel had a similar wing but had twin booms linked by an inverted V-tail, rather than a T-tail on a conventional fuselage.

The Sentinel was developed in parallel with the South African Army's Project Cytoon intelligence requirement, which aimed to provide an enhanced battlefield surveillance capability to 1 South African Tactical Intelligence Regiment, using a mix of ground surveillance radars, thermal imagers and UAVs.

Using the same vacuum launcher, ground station and deployable net and airbag recovery system as the Vulture, the 150kg Sentinel was designed to carry a 30kg payload over a range of 200km at speeds of up to 110km/h for an endurance of up to six hours, operating in a variety of electronic warfare roles, including signals collection, direction finding and jamming.

ATE envisaged larger versions of the Sentinel 500M having a fixed landing gear for runway operation. These were the 200kg Sentinel 620, with a 6.2metre wingspan, which carried a 35kg payload for up to 15 hours, and the 250kg, 8metre wingspan Sentinel 800, which could carry a 40kg payload, and which had a 20-hour endurance.

The Sentinel 800 survived the acquisition of ATE by Paramount to become the Sentinel SLEO, albeit with a shorter 7.5metre wing and carrying optical, infrared, high-resolution photo reconnaissance or synthetic aperture radar (SAR) payloads.

The current version of Sentinel is the Sentinel LE, which has a more conventional twin-boom layout with a high tail atop normal tailfins and rudders. This is designed to perform battlefield surveillance, target location (including the calculation of coordinates), artillery fire correction, border patrol, coastal surveillance, surveillance of designated areas, and emergency situation monitoring, using electro-optical sensors.

PAT is already planning to develop a larger light medium-altitude, long-endurance (MALE) unmanned air vehicle, in the 500-600kg class, with an endurance of up to 24 hours. It is also developing software and payloads that are intended to enhance the effectiveness of its platforms, including automatic target detection and tracking software. A recently formed robotics division is developing a range of unmanned ground, sea and sub-surface vehicles that will use some common hardware and software elements.



Kenyan Air Force F-5E Tiger II and a USAF C-5 transport aircraft.

Kenya loses F-5E in Al Shabaab mission

*A Kenyan Air Force F-5E has failed to return from a mission against Al Shabaab targets in neighbouring Somalia. As **Jon Lake** reports, the pilot is known to have ejected but has not been recovered and is posted missing.*

Al Shabaab is an Islamist terrorist group based in Somalia, allied to Al-Qaeda. Its operations frequently target Kenya. By 2014 it was estimated that Kenyan converts to Islam (Kenya being a predominantly Christian country) formed around 25% of Al-Shabaab's total forces, and provided some of the group's senior leaders. The militant group declared a jihad against Kenya in 2010 because Kenya was then training Somali troops. On October 16 2011, Kenya stepped up its operations against the group, beginning coordinated cross-border operations in conjunction with the Somali military. This prompted retaliatory attacks by the terrorists, largely targeting civilians in Kenya. These attacks included the September 2013 attack that killed 68 civilians in Nairobi's Westgate shopping mall.



Kenyan military units have continued to target Al Shabaab bases and hideouts across Somalia and have successfully forced the group to retreat from Somalia's major cities, though it continues to control some rural regions, imposing strict forms of Sharia law. During these operations, one of the Kenyan Air Force's Northrop F-5E Tiger fighters crashed in an area believed to be controlled by Al-Shabaab, 50km north of the vital strategic Indian Ocean port of Kismayo in Somalia. Kismayo was Al Shabaab's last urban stronghold and a port that provided the group with lucrative revenues, until it fell in 2012. It is understood that the F-5E had been attacking an Al Shabaab base established in an abandoned, Colonial-era Italian military camp in Araara. The Kenyan military confirmed that one of its aircraft

had crashed inside Somalia on December 4 2014, while returning from an operation. Kenyan media sources reported that the aircraft had developed engine (or 'avionics') problems and that the pilot had been advised to eject after radioing his base about the problem. Other media sources reported Al Shabaab's claims that it had 'shot down' the F-5E, and pointed to evidence that the group is known to have taken delivery of man portable air-defence systems (MANPADS), including the 9K38 Igla (NATO reporting name SA-18 'Grouse').



However, Kenyan sources suggested that Al-Shabaab did not have the capability to shoot down the F-5E, pointing out that it did not have heavy anti-aircraft guns or surface-to-air missiles (SAM). Kenya had not previously lost one of its fighters since starting operations against the Somali terrorists. Though Al Shabaab burned the wreckage, there was evidence that the pilot and his seat were not in the aircraft when it hit the ground and Kenya dispatched a special forces team to recover his body. However, they were unable to find any trace of the missing flier, Major Jonathan Kingu, who was one of the most highly decorated fighter pilots in the Kenyan Air Force, having been awarded the prestigious Order of the Golden Warrior by President Uhuru Kenyatta last year. Kenyan forces found that the air force's strike had killed at least 89 terrorists at Araara, most of them foreign fighters, many of them British, but also from Yemen and Pakistan. Their bodies were found to have been buried in a nearby banana plantation before the terrorists abandoned the camp.

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Ospreys still a



Some of the most important chapters in the Osprey's history have been written in African skies.

Jon Lake takes a look at the aircraft's role on the continent.

Although the cost and complexity of the Bell/Boeing V-22 Osprey make it unlikely that the type will enter service with any African air forces in the near future, this innovative tilt rotor has already seen extensive service in the continent.

US Marine Corps MV-22Bs and US Air Force CV-22Bs have flown thousands of hours over Africa, training, taking part in multi-national exercises, conducting humanitarian missions, and even flying combat missions against Islamist insurgents or evacuating US civilians in the face of coups or civil wars.

While the USMC MV-22B perhaps, unsurprisingly, made its first operational deployment to Iraq in September 2007, the USAF CV-22B variant made its operational debut to Bamako in Mali in November 2008.

The aircraft were deployed to support Exercise Flintlock, exercising with troops from Mali and Senegal.

CV-22Bs from the 8th Special Operations Squadron, normally based at Hurlburt Field in Florida, were supported by MC-130P Combat Shadow Hercules tankers from the 67th Special Operations Squadron.

Africa is a big priority for the US, which seeks to counter China's growing influence on the continent and build partnerships that will create wealth, jobs and opportunity on both sides of the Atlantic. It is also using bases in Africa in its 'global war on terror', and to protect global trade routes.

The counter-terrorism role is of growing importance in the face of a new generation of insurgent groups across the continent, from Nigeria, Mali and Libya to the Central African Republic.

The sheer size of Africa presents major challenges for expeditionary operations on the continent. The US has formed a special purpose marine air-ground task force (SP-MAGTF), a forward-positioned expeditionary unit tasked with responding to unexpected crisis situations that may occur within the Mediterranean and African area-of-responsibility. The SP-MAGTF is a balanced, expeditionary force with built-in command, ground, aviation and logistics elements, and can deploy en masse or in scalable elements.

The SP-MAGTF, forward-deployed to Rota, Spain, gives the US Africa Command (USAFRICOM) and US Marine Corps Forces Africa a broad range of military capabilities, including the ability to conduct disaster relief, humanitarian assistance, and non-combatant evacuation, as well as support to US Embassies

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force in Africa

CONTINUED FROM PAGE 57

The Bell/Boeing MV-22B Osprey is a key enabler of the SP-MAGTF, with its organic lift and tanking assets, allowing operations over a significant combat radius – with much greater reach than would be possible using conventional helicopters.

It brings a paradigm shift in capability, giving C-130 Hercules-like speed and distance performance, yet with a helicopter-like ability to land in confined areas, without relying on runways, all while carrying up to 8,300lb of cargo, or up to 24 Marines.

Marine Corps Ospreys have taken part in a series of exercises in Africa, including exercise ‘African Lion’ in Morocco (where one MV-22 was lost in 2012), as well as a major exercise at Dakar in Senegal in November 2013.

The only US military base in Africa is the naval expeditionary base at Camp Lemonnier, located at Djibouti-Ambouli International Airport. It is the home of USAFRICOM’s Combined Joint Task Force – Horn of Africa (CJTF-HOA), which is tasked with counter-terrorism, demining, and humanitarian missions.



KC-130Js and MV-22Bs from the SP-MAGTF were deployed to Camp Lemonnier when escalating violence in South Sudan prompted the evacuation of personnel from the US Embassy in Juba though, in the event, the evacuation was accomplished using just the two KC-130Js.

An earlier attempt to evacuate US civilians from South Sudan using V-22s fell foul of a prepared ambush, and had to be aborted, though the mission resulted in the 2014 award of the prestigious Mackay Trophy to 12 of the airmen involved.

The National Aeronautic Association presents the trophy to “the most meritorious flight of the year by an Air Force person, persons or organisation”.

Previous winners include Chuck Yeager for becoming the first man to break the sound barrier).

Interestingly, this abortive mission was undertaken by USAF CV-22B Ospreys, and not by USMC MV-22Bs.

The USAF has been using Camp Lemonnier as a base for operations against Al Qaeda in the Arabian Peninsula and other insurgent and Islamist groups in Yemen, Somalia and Kenya for some years, and the camp has accommodated RQ-1/MQ-1 Predator and MQ-9 Reaper unmanned aerial vehicles, Pilatus U-28A ISR/ISTAR aircraft and, since October 2011, a squadron of Boeing F-15E Strike Eagles, as well as a variety of US Army and US Navy surveillance aircraft.

To provide combat search and rescue support for the F-15E operations (which have included airstrikes against targets in the Yemen) the US Joint Special Operations Command (JSOC) deployed USAF CV-22Bs to Camp Lemonnier,



V-22s often operate with C-130 Hercules transports in support.

and it was these aircraft that were assigned to the mission to rescue US civilians from the remote South Sudanese city of Bor in the wake of a coup attempt.

The US Embassy in the capital city of Juba had already evacuated at least 450 Americans and other foreign nationals, and a UN helicopter was shot down by small-arms fire the day before the Ospreys’ mission.

Three Air Force CV-22B Ospreys from the 8th Special Operations Squadron, normally based at Hurlburt Field, Florida took off from Camp Lemonnier in Djibouti on December 21 2013, using the call signs Rooster 73, 74 and 75.

The aircraft carried 34 personnel, including 12 aircrew, a medic and 21 commandos, and flew about 750 miles through three countries to reach the UN compound in Bor.



The CV-22B pilots circled the site and assessed the area before beginning their approach, but came under heavy fire from small-arms, heavy machine guns and rocket-propelled grenades.

The three Ospreys were hit by some 119 rounds, suffering damage to many systems, and multiple fuel leaks, while four of the commandos on the lead aircraft were seriously injured – three in critical condition.

All three aircraft were hit, the second suffering damage around the cockpit, whose carbon fibre floor began to shred, and whose under-seat armour was hit.

The pilots immediately manoeuvred their aircraft out of the weapons engagement zone, abandoning the planned rescue. Fortunately, a

contingency plan was put into effect and the civilians were evacuated shortly afterwards.

The flight’s medic was on board the second aircraft and he began assessing the injuries on the first CV-22B over the radio. He set up a mobile “blood bank”, drawing blood from personnel on the second aircraft after requesting the blood types of the injured soldiers. His foresight ensured that an immediate transfusion was possible when the aircraft touched down at Entebbe, where a C-17 waited to evacuate the wounded to hospitals in Kenya.

The badly leaking Ospreys needed air-to-air refuelling support from MC-130P Combat Shadow Hercules tankers to reach Entebbe, and on one aircraft, the refuelling probe had to be run out manually – its hydraulic actuation system having been disabled.

The crews credited the Osprey’s speed and agility with allowing them to escape without suffering worse damage – the same mission flown with CSAR helicopters might have had a much worse outcome.

When the US began Operation United Assistance in October 2014, in response to the increased spread of the Ebola virus in west Africa, a detachment of four MV-22Bs from the Special Purpose Marine Air-Ground Task Force Crisis Response Africa (SP-MAGTF-CR-AF) was deployed from Moron, Spain, to Monrovia, Liberia, together with a pair of KC-130J Super Hercules.

The MV-22Bs, crewed by personnel from VMM-264, carried out a wide variety of tasks, including VIP transport and the movement of medical training teams. The MV-22Bs were also used to assist NGOs, and airlifted medical supplies across Liberia.

The GAF is acquiring more Mil Mi-17s.



Ghana Air Force orders revealed

Ghanaian president John Dramani Mahama has revealed some of the aircraft his country is procuring in the face of the broadening terrorist threat throughout Africa.
Jon Lake reports.

The second phase of the Ghana Air Force (GHF) modernisation programme was announced in November 2014 during the unveiling of a new hangar at Accra.

This February, though, president John Dramani Mahama, commander-in-chief of the Ghana Armed Forces (GAF), gave more detail of which aircraft types would be procured.

He announced that five new Embraer Super Tucano trainer and light attack aircraft would be acquired from Brazil, and that four Harbin Z-9 helicopters would be delivered by China from June 2015. No delivery date was given for the Super Tucanos.

Speaking during the General Headquarters (GHQ) West African Soldiers Social Activities (WASSA) celebration at Burma Camp in Accra, President Mahama reiterated his commitment to the GHF re-equipment plan originally set in train in 2009 under late president John Mills.

In the face of the increasing levels of terrorism and sophisticated crime around the world, the president identified the need for Ghana's forces and security services to devise appropriate tactics and to have the right equipment in order to combat the new threat, indirectly

referring to the Al-Shabaab attack on the Westgate Shopping Mall in Kenya, and Boko Haram's campaign of terror in near-neighbour Nigeria as examples of the kinds of threat now being faced in Africa.

The president undertook to double the number of cadets being trained at the Ghana Military Academy to 200 officers, while an ambitious upgrade of the facilities at the Ghana Armed Forces Command and Staff College (GAFSC), including construction of new auditorium and lecture halls, has resulted in its accreditation as a fully fledged military university.

Ghana's chief of staff, major general Bobson Saagbul, highlighted the need for equipment, training and strategies to be constantly upgraded to keep pace with the changing threat, and paid tribute to the government and the president in their running of the armed forces. He also praised his officers, men, women and civilian employees for their hard work, discipline, and dedication to duty in the face of what he called "the obvious challenges".



The GHF will be expected to continue to ensure the security of the country's borders, airspace and territorial waters, but there is a recognition that its existing equipment is inadequate for the task, and that greater counter insurgency capabilities, in particular, are urgently required.

Major general Saagbul also underlined Ghana's readiness and eagerness to work with the international community to bring peace and security to troubled parts of the world, as well as across his own country.

The Ghana Air Force has already deployed one of its two newly acquired C295 transport aircraft to Mali to support the United Nations mission multidimensionnelle intégrée des nations unies pour la stabilisation au Mali (MINUSMA) force, which took over from the African-led international support mission in Mali (AFISMA) on July 1 2014. The aircraft was deployed to Bamako-Senou airfield in Mali in late September 2014.

Ghana took delivery of its first C295 in November 2011 and then received a second in April 2012 as part of the first stage of the on-going GHF modernisation programme. A third C295 is to be acquired under the next phase of the programme, together with further Mil Mi-17s to join the seven now in service.

The GHF public relations directorate announced that it would lease two C295s (with their crews) to the United Nations for operations in Mali in mid-2013, and revealed that the Air Force was also operating a similar air transport service on behalf of the United Nations in Cote d'Ivoire (UNOCI).

SOMMAIRE

Le président ghanéen confirme les commandes des forces armées

Le 13 février dernier, John Dramani Mahama, président ghanéen et le commandant en chef des Forces armées du Ghana (GAF) ont réitéré leurs engagements à moderniser l'armée de l'air du pays (GHF). Ce plan a été lancé en 2009 sous la présidence de John Mills.

Des stratégies et des équipements appropriés sont indispensables pour lutter contre la menace terroriste selon John Dramani Mahama.

L'attaque d'Al Shabab au centre commercial Westgate au Kenya et les campagnes de terreur de Boko Haram au Nigéria sont des exemples des menaces qui gangrènent actuellement l'Afrique.

John Dramani Mahama s'est engagé à doubler le nombre de cadets en formation à l'académie militaire du Ghana et à moderniser les installations du commandement des forces armées.

De son côté, le général en chef Bobson Saagbul chef d'état-major du Ghana, a souligné la nécessité de perfectionner les équipements, la formation et les stratégies pour relever les

défis qui guettent les forces armées du pays. Celles-ci doivent non seulement continuer à assurer la sécurité des frontières du Ghana, l'espace aérien et les eaux territoriales mais également faire face en urgence à toute insurrection.

Bobson Saagbul a également accentué la volonté du pays soutenir les actions de la communauté internationale pour apporter la paix et la sécurité dans les régions en conflits dans le monde.

La force aérienne du Ghana a déjà déployé un de ses deux avions de transport C295 au sein de la mission MINUSMA au Mali. Un troisième C295 doit intégrer la flotte ainsi que d'autres Mil Mi-17 qui vont rejoindre les sept avions actuellement en service.

La deuxième phase du programme de modernisation de la GAF a été annoncée en novembre 2014. Le Ghana va acquérir cinq nouveaux avions d'entraînement Super Tucano et l'avionneur brésilien Embraer. Quatre hélicoptères Harbin Z-9 vont être livrés par la Chine à partir de juin 2015.



The UK has been at the forefront in helping to tackle the Ebola outbreak in west Africa. Jon Lake looks at what's been happening.

Britain's battle against Ebola focuses on Sierra Leone

The Ebola outbreak has rapidly become a global threat to public health, affecting Guinea, Liberia and Sierra Leone.

By January 2015, more than 21,600 cases and 8,600 deaths had been reported globally by the World Health Organisation.

As the fifth largest economy in the world, the UK was determined to be at the forefront of responding to the epidemic, taking its international responsibilities seriously.

The UK Government has already committed a £230 million package of direct support to help contain, control and treat the outbreak and total funding could rise to some £330 million.

It was soon decided that the best approach would be for the governments of the USA, the UK and France to lead the international response in Liberia, Sierra Leone and Guinea respectively.

The UK package focuses predominantly on Sierra Leone. It includes support for the construction of treatment facilities and the provision of more than 700 treatment beds, as well as the training and management of burial teams.

The first UK-constructed treatment centre opened in November 2014 in Kerry Town. It is managed by the Save the Children charity under contract with the UK Government.

With their long-standing focus on expeditionary and out-of-area operations, the British armed forces have a long and proud history of participating in humanitarian operations and, therefore, had the skills, equipment and know-how to be able to operate in west Africa, even in the face of potential damage to local infrastructure.



An enabling group was deployed under 'operation gritrock' in October 2013 and an RAF Boeing C-17 Globemaster aircraft was sent to Sierra Leone laden with medical supplies including four Land Rover-based Battle Field Ambulances (BFA). These are air portable and amphibious, and can carry a combination of up to four stretchers or six seated casualties, providing a very high standard of medical facilities.

On August 24 last year, another specially equipped C-17 was used to carry home the first British national to have contracted the virus. The aircraft flew to RAF Northolt in west London, where an ambulance transferred the patient to a London hospital.

In October, Britain's Defence secretary, Michael Fallon, announced that the UK would be significantly stepping up its effort to tackle the outbreak. It emerged that more British servicemen were being sent to curb the Ebola crisis than were being deployed to fight the Taliban and the Islamic State (IS).

The MoD deployed the aviation support ship RFA Argus, which embarked three Merlin helicopters from No820 NAS and 400 military personnel drawn from across the armed forces – a mixture of Royal Fleet Auxiliary, Royal Navy, Army and Royal Air Force, many of them experts in their field, and all of them having undergone stringent counter-Ebola training.

The UK's operation gritrock was augmented by a Canadian Armed Forces (CAF) mission codenamed operation sirona.

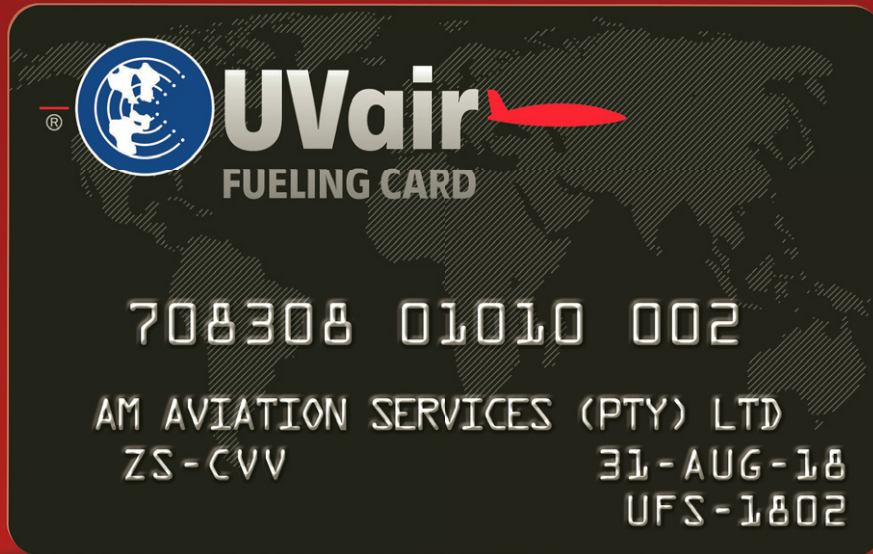
The Argus arrived in Freetown on October 30 2014, and quickly made its presence felt.

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SOMMAIRE

L'opération Gritrock pour lutter contre le virus Ebola

La propagation du virus Ebola en Afrique de l'Ouest reste la plus grande épidémie connue à ce jour. Il affecte la Guinée, le Libéria et la Sierra Leone et menace la santé publique mondiale. L'Organisation mondiale de la Santé signalait plus de 21 600 cas et 8600 décès en janvier 2015.

Le gouvernement britannique a déjà apporté 230 millions de livres pour contenir l'épidémie d'Ebola en Afrique de l'Ouest, mettre en place des structures sanitaires et médicales pour soigner les malades. Plus de 700 lits ont ainsi été aménagés et les équipes responsables du service mortuaire formées. Le soutien du Royaume Uni se focalise sur la Sierra Leone. Ce financement pourrait atteindre un total de 330 millions de livres. Le premier centre est géré par l'organisation caritative « Save the Children UK » sous contrat avec le gouvernement.

Par la suite, il a été décidé qu'une réponse internationale incluant les Etats-Unis, le Royaume-Uni et la France serait plus appropriée pour lutter contre le virus au Libéria, au Sierra Leone et en Guinée respectivement.

L'Opération Gritrock a été lancée en octobre 2013. Un Boeing C-17 Globemaster de la RAF a alors été déployé. Un second C-17 a été utilisé en août 2014 pour l'évacuation du premier ressortissant britannique ayant contracté le virus. Le navire RFA Argus a ensuite déployé trois hélicoptères Merlin et 400 militaires issus de l'ensemble des forces armées britanniques. Le rôle principal de ce dispositif était d'assurer le transport et le soutien logistique nécessaire aux équipes médicales et aux experts travaillant en Sierra Leone.

Le Président Koroma a pu ainsi porter un message de réconfort à plusieurs villes à travers le pays.

The ship's primary role was to deliver transportation and logistical support for the medical teams and experts working in Sierra Leone once it had unloaded the Department for International Development stores and 32 off-road vehicles it had carried from the UK for use by the Government of Sierra Leone and charities up and down the country.

The ship's three Merlin Mk 2 helicopters were used to transport essential stores and medical personnel to remote locations, and had a limited VIP role, according to commander Ross Spooner RN, commanding officer of 820 NAS.

"We had the privilege of flying Sierra Leone president Ernest Bai Koroma and in this way he was able to spread a message of reassurance to several towns across the country," he said.

Royal Marines from 42 Commando and 539 Assault Squadron used two landing craft vehicle personnel (LCVP), two rigid hull inflatable boats and three Zodiacs to provide additional logistical support along the country's extensive coastline and river systems, and to identify potential beach landing sites.

STING IN THE TALE OF THE SCORPION



Nigeria wants the Textron AirLand Scorpion to upgrade its capabilities against Boko Haram.

*But, as **Jon Lake** reports, the sale may not be forthcoming.*

The Nigerian Air Force (NAF) has been using its ageing Alpha Jet advanced trainers, and a dwindling number of Mi-24 helicopters in the north of the country, in its campaign against the militant Islamist group Boko Haram.

The NAF's frontline Chengdu F-7NI fighters are unsuited to counter-insurgency (COIN) operations and lack any precision-guided air-to-ground weapons.

The Alpha Jets and Mi-24s are old and are suffering availability problems. They have also proved vulnerable to man portable air-defence systems (Manpads), with a number having been lost in action in recent months. They lack both the precision attack capabilities required, and the intelligence, surveillance, target acquisition and reconnaissance (ISTAR) capabilities that the NAF wants for all of its aircraft.

At one time it seemed likely that Nigeria would acquire armed versions of the Chinese Hongdu K-8 trainer for the COIN role and, in April 2014, air marshal Adesola Amosu, Nigeria's chief of Air Staff, told a press briefing that the NAF had already selected a new combat aircraft. But, although the K-8 has a notional air-to-ground capability (and has been used in action by the Burmese Air Force), it offered little advantage over the Alpha Jet, and Nigeria changed the focus of its search.

□□□□□

Negotiations between Nigeria and Israel for the supply of some of Israel's 37 (or so) stored Bell AH-1 Cobras, which were withdrawn from Israeli Defence Force service in 2013, were abandoned in November 2014 after the USA moved to block any sale of surplus American-made weapon systems to Nigeria, citing concerns over the human rights record of the country's military.

At the International Quality & Productivity Centre (IQPC) Fighter Conference in London in November 2014, Air Vice Marshal RA Ojuawo, the Nigerian Air Force's director of operations, revealed that his country was interested in acquiring the Textron

AirLand Scorpion for light strike and surveillance duties.

"We are really handicapped in attacking the enemy where and when we want to. We need capabilities for a timely response. These guys (Boko Haram) are armed to the teeth and air power remains vital in irregular warfare, so in my country, we want and need this," Ojuawo said.

"The Scorpion does ISR and attack all in the one package," he added.

Nigeria has put in a request to the US Government for the sale of an initial batch of 12 aircraft to form one squadron. However, Ojuawo expressed concern that approval might not be granted.

"We want this equipment but are they going to give it to us? It is going to take the international community to fight insurgency, and the only way to do that is to give countries like ours the technology that we need."

□□□□□

The Air Marshal denied allegations of human rights abuses by Nigeria's armed forces, saying that bystanders harmed during the battle against insurgents shouldn't be characterised as human rights abuses, but as regrettable collateral damage.

However, it remains to be seen whether the US will agree and authorise a Scorpion sale.

The NAF reportedly received a proposal from an unnamed defence company for the sale of six Puma gunship helicopters, four Sukhoi Su-25KM ground attack jets and two upgraded Su-25UB trainers, according to Nigerian media reports in early February 2015. The paper reported that the deal had been endorsed by the NAF and recommended to "the higher echelon of government within 16 days" of the proposal being submitted.

The Nigerian media has also reported that the NAF has expressed a preference for new AgustaWestland AW129 Mangusta attack helicopters (or more likely the Turkish-built T-129 ATAK derivative) rather than buying upgraded Pumas and Su-25s.

Last year was busy for business aviation in Nigeria. All aspects of the sector recorded a significant growth, reports Chukwu Emeke.

A BOOM THAT'S JET PROPELLED

«Une croissance propulsée par l'aviation d'affaires » – Page 66



Skyjet Aviation Services displayed Gulfstream's G280 aircraft at the EAN facility in September 2014.

Nigeria now has Africa's fastest-growing business aviation sector, with more new and pre-owned aircraft delivered to the country between 2013 and 2014 than to South Africa.

The country's private jet fleet is larger than the commercial aircraft fleet at a time when business jet markets in some large economies are barely growing.

Some have projected that Nigeria could become the largest economy in Africa within the next 10 years, taking the top spot from South Africa, which has a large and mature business aviation market.

Though the growth of Nigeria's business aviation market is obvious, tracking it is challenging as about 90% of the aircraft operating are registered outside of the country, while aircraft ownership is not so clear.

Segun Demuren, managing director, Evergreen Apple Nigeria (EAN) Aviation, estimates that between 100 and 150 private jets are operating in Nigeria, with an anticipated 350 set to be in use by 2016.

“Executive jets provide a solution to much of the logistical challenges in the country. The time saving, the convenience and the increased productivity that follows means business aviation is not a luxury but an essential tool for growth in Nigeria.”

CAPTAIN NOGGIE MEGGISON

The growth of business aviation in Nigeria has been driven predominantly by the oil and gas industry. However, other sectors including finance, manufacturing, telecommunication and agriculture, are all contributing to a market that is growing at an estimated 20% per year.

Captain Noggie Meggison, chairman of Airline Operators of Nigeria (AON), attributes the sector's growth to inadequate transport links – a poor road network, a limited domestic airline fleet and train network. “This means that executive jets provide a solution to much of the logistical challenges in the country. The time saving, the convenience and the increased productivity that follows means business aviation is not a luxury but an essential tool for growth in Nigeria,” he said.

The boom in business aviation has, in recent years, been mainly at Lagos, Abuja and Port-Harcourt airports, which account for 80% of the business aviation activities in Nigeria. Abuja, in particular, as the federal capital territory located at the centre of the country, houses and

Continued
on Page 64



ExecuJet Aviation Group is adding a Falcon 900B, Hawker 800 and Bombardier Challenger 604 to its managed fleet. Pictured is the company's relatively new Lagos facility.

CONTINUED FROM PAGE 63

receives wealthy Nigerians and a bulk of private investors that use aircraft to support their businesses.

“In Nigeria, key growth areas are coming from the financial capital Lagos; Port Harcourt, owing to the oil and gas growth; and Abuja being the seat of government, all of which are experiencing growth in private as well as corporate business flights,” said Demuren.

Apart from business support services, the range of aircraft also enables business executives and government officials travelling around Africa and beyond to the Middle East and Europe, to fly with convenience and efficiency.

Charter operators provide a significant chunk of traffic recorded at Abuja's Nnamdi Azikiwe Airport but, increasingly, privately-owned aircraft belonging to local entrepreneurs are contributing to the movement figures.

Private jet ownership in Nigeria has grown from 20 in 2007 to more than 150 in 2015. Most are owned by top government officials, including members of the senate, Federal House of Representatives and cabinet members.

Though the security situation in Nigeria, and the quest for privacy among the elite, constitute the motivation for this surge, some jets registered for private use have, in recent times, been used to provide charter services, contrary to Nigerian civil aviation regulatory requirements. The minister of Aviation, Osita

Chidoka, recently announced that measures have been introduced to stop this trend.

Business aviation service providers in Abuja include Toucan Air, EAN, Executive Jet Air Services, Izy Air, Air First, Caverton Helicopters, Dornier Aviation Nigeria, Kabo Airlines, Kings Airlines, Jed Air, Pan African Airlines Nigeria, Aero, West Link Airlines, Re-Routine Air and Skyjet Aviation Services.

Headquartered in Lagos, EAN was launched in June 2011, offering private flights and operating as a registered fixed-based operator (FBO) in Nigeria. Its facilities, which include VIP lounges, ground handling, exclusive hangars, offices and restaurants, and catering for private jets, set a standard for support of business aviation growth.



The FBO has offices in Abuja, the country's administrative capital and Port Harcourt, the energy capital of the Niger Delta. In Abuja, EAN provides various services for private and corporate aircraft owners and, in collaboration with NAC of South Africa, the company also offers aircraft maintenance. It says it hopes to provide helicopter services in cooperation with HeliPortugal.

EAN has a catering division, Wings In-Flight, and now offers a VIP lounge, ground handling, exclusive dispatching, secured hangar and apron parking and aircraft maintenance

services for executive jets. The company says it has recorded a steady increase in movements.

It has an on-going relationship with Maintenance Centre Malta (MCM) to offer aircraft on ground (AOG) capability 24/7 and provide maintenance for visiting aircraft during regular daily operations. The partnership has MCM supporting EAN clients with line maintenance, wheels, brakes and battery servicing on European-registered aircraft at the EAN facility.

This maintenance business is now bolstered as EAN has an approved maintenance organisation (AMO) approval from the Nigerian Civil Aviation Authority. Its AMO status means that EAN can undertake wheels and battery service provision on a wider variety of Nigerian-registered aircraft types.

EAN's FBO services include a wide range of aeronautical activities, such as air charter operations, non-scheduled air carrier services, pilot training, aircraft rental and sightseeing.

“We offer a premium service to our clients. When they arrive, there is somebody there to meet them and the aircraft and crew are ready. It is seamless; there is no hassle. Most of them are usually working, even when they arrive at the facility. Some arrive with aides. We want to create an environment where as they come in, they already feel comfortable,” said Demuren.

According to EAN, flights are arriving into its facility predominantly from Europe with London, Ireland, Germany, Spain, France and



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CONTINUED FROM PAGE 64

Austria all featuring as regular starting points as they bring business executives into Nigeria.

Owing to the size of the African continent, the mid-to-heavy jets are proving most popular at the EAN Hangar Jet Centre in Lagos as well as its Abuja facility. Gulfstream 400/450 models, the Bombardier Global Express family and the full range of the Bombardier Challenger types, from 601s to 850s, are regularly parking up at the hangar.

Toucan Air has its headquarters at Murtala Muhammed Airport, Lagos, having launched into the contract charter sector in April 2011, providing services to the expanding energy sector and a burgeoning mineral market.

Since then, it has built a business focused on providing contract charter for the energy market with Total Exploration and Production, the French oil producer, a key account.

With bases in Lagos, Abuja and Port Harcourt, Toucan has experienced year-on-year growth and now operates a fleet that includes a Citation XLS, Falcon 900 EX, two Citation Sovereigns, a Hawker 850 XP and a CRJ200.

After three years of operations, the company recently invested more than half-a-million dollars in the construction of a purpose-built guesthouse for its crew in Lagos to support all its operations. "Our crew work extremely hard and need to feel rested and relaxed in comfortable, familiar surroundings



Dassault showed off its Falcon 7X at the AAD show in South Africa last September.

so they can be at their best for their flights. For me, this is an extension of resource management. If the crew feels cared for, then that feeling will be returned and they will perform better. Our international customers benefit from a refreshed crew, our team feels truly valued," said Achuzie Ezenagu, CEO of Toucan Aviation.

"Our business is about providing our client with the best possible service. Making an investment such as this supports that activity. It helps retain staff, ensures they are happy in their work and, most importantly, means they are rested and therefore increases safety aboard the aircraft," he said.

Toucan Air offers contract charter services from its Abuja Airport office.

In response to the obvious growth of business

aviation activities in Abuja, the federal government in 2012 renovated the General Aviation Terminal at Abuja Airport and the Federal Ministry of Aviation announced the dedication of the old domestic terminal to unscheduled flights, as well as the annual Hajj flights.

The Federal Airports Authority of Nigeria (FAAN) has also stated that it intends to build general aviation terminals for private and corporate jet owners at Enugu, Kaduna, Port Harcourt and Yola airports.

The national civil aviation policy, published in 2013, seeks to allow "MRO and FBO activities at the airports while developing air traffic control procedures capable of accommodating increased small aircraft movement".

Based on Nigeria's federal system of government, state chief executives and their cabinet members have an almost weekly reason to visit the nation's federal capital territory. The need to travel by air has forced many states to partner with airlines to either build or develop airports in their domains.



An airline like Overland Airways had, in 2003, pioneered this initiative with the Kwara state government as it signed a contract to move the governor and his cabinet members to Abuja from Ilorin, the state capital. This movement occurred almost on a daily basis, using Beech King Air 100. This aided the development of Ilorin Airport as it attracted other airlines. With time, other states like Delta, Bauchi and Katsina also bought into the initiative and this further boosted the volume of official charter flights operated into Abuja.

As at the last quarter of 2014, a total of 17 new airlines had applied to the Nigerian Civil Aviation Authority (NCAA) to undergo the airline operators' certificate (AOC) process. Among the applicants were private jet and charter service operators.

Despite the volume of growth in the business aviation sub-sector of Nigeria's economy, analysts say the choice of aircraft by operators and the absence of good business models still constitute some of the numerous challenges that stakeholders should address.

Also, though service maintenance offerings are improving, issues with spare parts – often related to customs matters rather than availability – still persist.

SOMMAIRE

Une croissance propulsée par l'aviation d'affaires

2014 fut une année faste pour l'aviation d'affaires au Nigéria.

Chukwu Emeke nous décrit l'état de santé de cette activité en pleine croissance.

Le Nigéria connaît aujourd'hui la plus forte croissance du secteur de l'aviation d'affaires en Afrique. Il surpasse l'Afrique du Sud en nombre de livraison d'avions entre 2013 et 2014. Les avions privés sont plus nombreux que les avions commerciaux au Nigéria. Il est cependant difficile de suivre l'évolution de sa flotte d'avions d'affaires car environ 90% d'entre eux sont enregistrés hors du pays.

Segun Demuren, directeur général d'EAN, estime qu'entre 100 et 150 jets privés sont en service aujourd'hui au Nigéria et que 350 opéreront en 2016.

Le capitaine Noggie Meggison, président d'Airline Operators of Nigeria explique que « l'aviation d'affaires est un mode de transport crucial face à la faiblesse du réseau routier et ferroviaire ainsi que le réseau domestique limité. Le gain de temps, l'aspect pratique et la productivité font que l'aviation d'affaires n'est pas un luxe mais un outil essentiel pour la croissance au Nigéria ».

Le boom de l'aviation d'affaires est principalement visible à Lagos (capitale financière), Abuja (siège du gouvernement) et Port-Harcourt (pétrole et gaz) qui représentent 80% des activités du secteur.

Les avions d'affaires permettent aux dirigeants

d'entreprises et aux responsables gouvernementaux qui voyagent en Afrique, au Moyen-Orient et en Europe, de se déplacer efficacement.

On trouve de nombreux opérateurs au Nigéria. Basée à Lagos, EAN propose un large spectre de vols privés et fonctionne comme un FBO.

« Nous offrons un service premium à nos clients », rappelle Segun Demuren. Toucan Air fournit des services de charter pour le secteur de l'énergie. « Notre métier est de fournir à notre client le meilleur service possible », soutient Achuzie Ezenagu, son directeur général.



Les autorités nigérianes comptent mener de nombreux travaux d'infrastructures aéroportuaires pour accompagner cette croissance. La politique nationale de l'aviation civile vise également à développer les activités de MRO et FBO dans les aéroports.

Cette croissance attise les appétits. Au dernier trimestre de 2014, 17 nouvelles compagnies aériennes ont ainsi demandé à l'autorité de l'aviation civile nigériane un certificat AOC. Parmi les candidats, plusieurs opérateurs de jets privés.

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The vast African continent is an attractive prospect for those developing corporate aviation but leading events in this sector have seen little African participation in the past. There are signs of change, however.

According to research commissioned by the African Business Aviation Association (AfBAA), there are around 1,400 business aircraft in Africa and business air travel has grown across the continent by 13% over the past five years.

This growth is likely to remain steady through the course of this year.

Nigerian FBO EAN's CEO, Segun Demuren, said he believes growth continues "largely driven by the oil and gas sector".

In a recent interview with Bloomberg, jet charter provider VistaJet's chief, Thomas Flohr, pointed out the hurdles of travelling in the region.

He said: "It's easier to travel to Europe in a private jet than it is across Africa." However, he added that 10% of the firm's 11,000 flights last year were in Africa,

THE GENEVA CONTENTION

Liz Moscrop looks at the exhibitor list for May's European Business Aviation Convention & Exhibition (EBACE) event in Geneva and notes that it will feature several companies with serious interests in Africa.



Pilatus PC-12 at George, South Africa. The Swiss built turboprop is popular in Africa. Pilatus is waiting for EBACE to reveal more details of its new PC-24 jet.

which saw revenues double over 2013.

One of the biggest stories last year was British private jet operator Hangar8's reverse acquisition of the UK's Gama Group, now known as Gama Aviation. The enlarged group now has 144 aircraft under management, operating from 44 different locations in 15 countries across five continents.

Executive director, Dustin Dryden, pointed out that last year Hangar8 saw a growing interest



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from mining and oil and gas companies looking to private aviation as a solution to complex travel needs. This mainly involved the need for senior executives to visit difficult-to-reach mining and drilling sites. The firm experienced a 25% increase over summer 2013 in enquiries from the sector.

He said: "2013 was a difficult year for mining, with its top 40 companies seeing net profits plunge 72% to a decade low of US\$20 billion. Mining stocks also dropped 23% to US\$280 billion."

Many mines and drilling sites are in difficult-to-reach places serviced by poor infrastructure. Business aircraft can be useful for getting to these areas because, for example, they can land on short runways. Indeed, the firm's analysis indicates that 81% of runways in Africa are short and/or unpaved.

That is not putting off the big players, however. Earlier this year, ExecuJet Aviation Group expanded the company's managed fleet in Africa with the addition of a Falcon 900B, Hawker 800 and Bombardier Challenger 604.

"It's easier to travel to Europe in a private jet than it is across Africa."

THOMAS FLOHR

The refurbished Falcon 900B is based in Luanda, Angola (a first for ExecuJet), while the other two jets are located at Lanseria International Airport, Johannesburg.

The Hawker 800 and Challenger are both available for charter.

Gavin Kiggen, director flight operations for Africa, outlined the company's ambitions for the fleet: "We expect the Challenger 604 to be extremely popular as the aircraft is capable of non-stop flights to a variety of destinations in Africa.

"The Hawker 800 will provide our

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CONTINUED FROM PAGE 69

customers with a charter aircraft for non-stop flights to most sub-Saharan destinations.”

Also this year, Swiss-based Vertis Aviation opened its first charter branch in South Africa at OR Tambo International Airport in Johannesburg at the new state-of-the-art Fireblade Aviation FBO. Vertis is the first executive aviation charter business to take up residence there.

At the same time, it augmented its fleet with a new Bombardier Global 6000, a Bombardier Learjet 45 and a 2013 AgustaWestland AW139 helicopter, which Fireblade operates.

Partner Jeffrey Emmenis said: “The decision to open an office in South Africa was driven by growing demand for business aviation on the continent.”

Fireblade became operational on September 1 2014 and offers 24-hour refuelling from a brand new on-site fuel farm, as well as full FBO services.

It also recently invested in software, meaning employees can access information about the company on any mobile device. With a footprint spanning more than 60,000sqm, this ensures workflow efficiency “at a snip”.

Though Africa can boast plentiful resources, the impact of investment is tempered by the enormous size of the continent.

There are also huge financial differences, evidenced by the slight increase in cases of Ebola at the beginning of February, after a fall in January.

The virus is still predominantly confined to the poorest countries in the region – predominantly



The new Fireblade FBO in Johannesburg has a distinctly African feel.

Liberia and Sierra Leone. As of mid-March, the World Health Organisation had declared that Nigeria and Senegal are free of the disease.

International SOS company Medaire’s latest ‘risk map’ also shows improving African health results for travellers.

The latest edition of the chart demonstrates that foreign investment and new private hospitals are leading to improved facilities in some parts of Africa.

Many countries are downgrading their alert levels. Medaire VP of aviation and maritime health, Dr Paolo Alves, sounded a note of caution, however: “What’s important to note is that the medical risk within a country can vary widely. Even major cities may have contrasting levels of care, with high-quality medical centres not too far

from poorly-resourced facilities.”

Investment can only help. There is more good news on that front from the Nigerian Civil Aviation Authority (NCAA), which signed an agreement in February with the Civil Aviation Authority of San Marino allowing companies to operate aircraft registered in San Marino commercially.

“This agreement is fundamental and marks a new level of cooperation between the two aviation regulatory authorities,” said SM-CAA’s director general Marco Conti.

Meanwhile, AfBAA is running its third regional symposium in September in Johannesburg. Tarek Ragheb, AfBAA’s chairman, suggests that it is worth looking where business jets are flying to when looking at areas of most growth.

ABBOTT MAKES HIS MARK WITH FBOs

During a recent stopover at Cape Town International Airport, Ian Sheppard met up with Mark Abbott, ExecuJet’s group FBO director, who is based at the company’s FBO there.

ExecuJet’s facility at Lanseria Airport, northwest of Johannesburg, may be its African centre of operations (and where the company was founded), but the now Swiss-based company’s Cape Town FBO has much to offer in both space and facilities for VIP passengers.

The purpose-built 250 million Rand (\$20 million) facility is strategically located parallel to the main runway and boasts 5,000sqm of hangar floor, 7,000sqm of dedicated ramp parking and “exclusive access to the taxiway and runway of Cape Town International”.

Abbott said that although ExecuJet now has 19 FBOs around the world, including three in Africa, he prefers to stay in his native South Africa. He was instrumental in setting up the Cape Town FBO in October 2009 (ahead of the soccer World Cup) and last year managed the construction and opening of “Number 19”, in Lagos, Nigeria.

“Business aviation in Africa is going through a transformation. It’s no longer a dumping ground for G3s – we see G650s, Globals, 7Xs etc now,” said Abbott, referring to Gulfstream’s G650, Bombardier’s Global family and Dassault’s 7X respectively – all top-of-the-range long-distance business jets.

He pointed out that, although ExecuJet had dominated the wide-body business jet market in Africa “for years”, lots of the aircraft had gone elsewhere. “But now there’s talk of three Global 6000s



Mark Abbott: “Visiting pilots find they are talking to staff who are commercial pilots, and they like that”.

(similar to the aircraft that was sitting in front of the FBO building) coming into the market.”

Although it’s not the biggest FBO in the world, the Cape Town facility has very ample hangarage and sufficient passenger space, with a boardroom and lounge. ExecuJet rents much of its building to other companies but has a separate reception as you enter from the car park, which, itself, is a two-minute drive from the airport’s main passenger terminal.

A major development would be for the FBO to get its own customs approval, said Abbott. “With customs and immigration we’re hoping that Fireblade [OR Tambo International Airport in Johannesburg] will set a precedent – it will be a game-changer to get C&I. It’s something I’ve been calling for for a long time.”

On a tour of the hangar, Abbott pointed out the engineering facilities and the fact that many of the staff had commercial pilot licences (CPLs). “We have guys towing aircraft who have CPLs. Visitors don’t expect that but it makes us world-class. The entry level for staff is very high. Visiting pilots find they are talking to staff who are commercial pilots, and they like that. We have a database of pilots and have a programme where we pay for their rating on a PC-12, which [eventually] gives them 300 hours on a decent aircraft and they then don’t have to go and do contract flying.”

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A new shuttle service is providing an exclusive, direct link between Johannesburg and the Botswana capital.

Oscar Nkala reports from Gaborone.

Diamond service is cutting-edge

The usual aircraft at present on the 'Gaborone Express' is a Nextant 400XTi.

Belgian-based special flight services provider, Aviation Factory, has launched the 'Gaborone Express' for use by European and Indian-based representatives of the Diamond Trading Company (DTC). The company is "mostly" using a Nextant 400XT, a remanufactured Beech 400 executive jet, said Thomas van Meerbeeck, president of Gaborone Express.

It is running the shuttle on behalf of Malca Amit, a Belgian logistics, security and special operations (for precious commodities) services provider.

Aviation Factory described the 30-minute flight as "a time-saver" for representatives of companies exporting DTC and Okavango Diamond Company (ODC) products from Gaborone to Johannesburg for onward shipment to international diamond trading centres in India and Belgium.

"The jet shuttle provides a seamless and fast link between commercial flights arriving in Johannesburg (from Europe and India) and transfers to Gaborone," said the company.

"Offering a very fast link, a mini-van greets passengers arriving in Johannesburg and transfers them to the jet shuttle, which continues to Gaborone. At the end of the day the shuttle returns the passengers to Johannesburg, arriving in time to enable them to catch evening flights back to Europe/India."

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Malca Amit said the private air bridge was designed to provide an efficient, time-sensitive air link to Botswana for executives following the relocation of top international diamond dealing company De Beers' sales operations from Antwerp to Gaborone. It added: "This VIP service will allow people to save a full working day in Gaborone with no more complicated, time-consuming transfers. The jet is fully linked with the commercial flight and there is no waiting time. There is a private mini-van shuttle between both aircraft and we guarantee a board-to-board time in Johannesburg of 30 minutes. People will arrive in Gaborone in the morning, where other commercial flights will only get them there in the afternoon."

The Europe-Johannesburg-Gaborone trip costs Euro €950 (\$1,066.00) for a same-day return flight.

The relocation of the De Beers sales operation followed the creation of ODC in 2012 as the sole, government-owned rough diamond trading and distribution company. Its core business is marketing Botswana's abundant rough diamonds to the international cutting and trading centres in Belgium and India. It is also actively exploring new markets in Australia, the United States, the UK, Canada and Russia.

As the main competitor, Air Botswana (AB), sinks deeper into debt, the launch of the new service is bound to stiffen competition for the Johannesburg-Gaborone executive shuttle market.

South African flag-carrier SA Airlink (SAA) and AB are already competing for the regular, low-volume airline passenger traffic between South Africa and Botswana.

However, the competition is bound to worsen the fiscal woes at AB, which has drawn most of its profit from business jet services on the same route.

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According to a new Government financial oversight report released by auditor-general Pulane Letebele, "issues of maladministration and general malpractice" have cost the airline massively through financial and equipment losses, which include aircraft and aircraft engines.

Letebele said the airline had violated key financial accounting provisions of the Air Botswana Act, which state that the airline's revenues must always be sufficient to produce reasonable investment returns.

According to the report, the airline has current assets with a net value of 79.95 million Botswana Pula (\$8.26 million) and current liabilities of P206.78 million (\$21.39 million).

Among other principal accounting irregularities unearthed by the auditor-general's report, AB was found to have recorded a cost of P3.8 million (\$393,174) on an aircraft engine that was supposedly sent for overhaul during the year under review. However, auditors discovered that the repair/overhaul had actually been done later and that the engine was returned after the end of the financial reporting year.

The audit also found that the airline's overhaul records for property, plant and equipment did not show the service costs and accumulated depreciation and utilisation of engines and aircraft. Proper accounting procedures were also flouted when the airline sold an ATR 72-500 aircraft but failed to write off the unutilised overhaul costs to the company, which amounted to P1.5 million (\$154,862).

"This VIP service will allow people to save a full working day in Gaborone with no more complicated, time-consuming transfers."
MALCA AMIT

Converted 407 gives Bell an Eagle eye on the market

Eagle Copter of Alberta, Canada, has received Transport Canada and Federal Aviation Administration certification for its Eagle 407HP conversion.

The hot & high Eagle is perfect for Africa with a considerable boost in performance.

The Eagle 407HP conversion replaces the OEM-installed Rolls Royce 813-shp M250 C47 engine with a 'next-generation' 1,021-shp Honeywell HST900D-2-1D, under a Supplemental Type Certification (STC). The new powerplant significantly improves the Bell 407's high altitude and hot ambient temperature performance, and effectively turns an existing 407 into an example of Bell's own cancelled Model 417, a faster, more powerful and also more fuel efficient helicopter.

The original Bell 407 is widely regarded as one of the most versatile helicopters in operation today, and was a derivative of and replacement for the Model 206L-3 LongRanger, with a wider cabin and larger windows, and using the the four-blade soft-in-plane main rotor developed for the Model 406 (the military OH-58D Kiowa). The Model 407 soon found success as a utility, air ambulance, and law enforcement helicopter, though there was some demand for more power, particularly from operators who wanted to use the type in hot and high conditions.

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Bell studied a Model 407T twin-engined variant, and developed the closely related Bell Model 417, using the Honeywell HTS900 turboshaft engine from the 407-based ARH-70 armed reconnaissance helicopter. The 417 prototype made its first flight on 8 June 2006, but this programme was cancelled in 2007, with Bell Helicopters and Honeywell concluding that they could not make this a viable commercial offering.

But what was commercially unviable as a new-build helicopter from Bell and Honeywell, with what Eagle describe as "large company economics", has proved to be an excellent programme for a smaller company.

Working with the approval of (and assistance from) Bell Helicopter and Honeywell, Eagle Copters signed a

technology licence agreement with both Bell Helicopter and Honeywell to facilitate the STC, and began work on the programme at its base at Calgary International Airport.

Eagle Copters is a Bell Platinum Customer Service Facility, and has some experience of re-engining Bell helicopters under an STC, having previously produced the so-called Eagle Single, which is a twin-engined Bell 212 helicopter converted to a single engine configuration using a 1,500-shp Honeywell T53 engine in place of the usual Pratt & Whitney Canada PT6T-3 Twin-Pac powerplant, with Eagle offering a second hand engine or an option to fit a factory-new T53-17BCV engine. The original Twin-Pac powerplant was made up of two coupled PT6 power turbines driving a common gearbox, capable of producing up to 1,800 shp. The Eagle Single modification effectively turned a Model 212 into a Model 205, or a Model 210 reducing weight and complexity in the process and enhancing reliability through the incorporation of modern avionics.

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The Eagle Single modification has been a success for the company, having been certified to operate under Canadian, FAA (American), Australian, Chilean, Indonesian and Peruvian STCs. About ten Eagle Singles have been produced, and there have been no Service Bulletins or Airworthiness Directives issued in more than 10,000 operational hours. Such a small-scale programme would never have been commercially viable for Bell in just the same way that the new Eagle 407HP conversion would not have been.

The 1,021-shp HST900D-2 engine selected for the Eagle 407HP is equipped with a true dual-channel Goodrich FADEC system, and the engine delivers greater power while occupying less volume and burning less fuel than the legacy engine.

As a result, the Eagle 407HP offers a 22% increase in take off power (at sea level, in standard ISA conditions) and maintains that power advantage at a higher altitudes, giving an estimated 25% increase in payload at 12,000 ft. The converted aircraft can hover out of ground effect at 10,800 ft (at 5,000-lb), 4,300 ft higher than a standard Model 407. The 407HP has superior performance characteristics in high temperatures and in high altitude operating environments improving mission capability and safety.

Eagle Copters has now begun taking firm orders for the conversion, which will be undertaken at the company's Calgary facility, and at Eagle Copters South America SA in Santiago, Chile, and Eagle Copters Australasia Pty. Ltd. in Coffs Harbour, NSW, Australia. There are hopes that Bell will adopt the Honeywell engine conversion for the improved Model 407GX and for Model 407s built for foreign military customers.





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As the focus on African oil and gas development expands, the involvement of helicopter fleets is growing. Peter Shaw-Smith reports.

Oil's well on the rotary front

UK oil and gas consultancy, Douglas Westwood, is forecasting 17% growth in African oil production between 2015-2019.

David Hart, a research analyst at the consultancy, estimated that offshore operators in Africa would need around \$3 billion of financing to grow the fleet over that time, out of a global total financing requirement of \$24 billion. He added that medium-type helicopters would be 61% of the global market.

Nigeria, alone, is thought to have around 200 onshore helipads, 200 offshore helidecks and a fleet of around 100 helicopters owned and operated by six companies, including Bristow Group of the US and the local Caverton Helicopters.

Because several drilling operations in the onshore Niger Delta are located in mangrove swamps, helicopters are also required to bring personnel to operational areas.

Bristow has a fleet of 47 aircraft in west Africa, including six large helicopters, 30 medium, eight small and three fixed-wing aircraft. Some 19% of its global revenues were generated there in the last quarter.



“Our west African business unit is located in Nigeria, providing helicopter transportation services to clients in five different states of the Nigerian Federation, including Lagos, Delta, Cross River, Rivers and Akwa Ibom,” said Bristow Group communications manager Julie King.

“We have more than 1,000 employees in our helicopter transportation companies operating in Nigeria, which include Bristow Helicopters Nigeria Limited (BHNL), Pan African Airlines (Nigeria) Limited (PAAN) and BGI Aviation Technical Services (BATS).”

According to Michael Nagel, of Canada-based Nagel Aviation Consulting, Bristow has “the lion’s share” of the Nigerian market at very impressive [growth] rates per quarterly reports.

“Its new relationship with Everett shows an appetite for continued growth in Africa that



Bristow has a fleet of 47 aircraft in west Africa.

already includes a long-term relationship with Petroleum Air Services (PAS) in Egypt,” he added.

Caverton is the main local player in Nigeria. It was floated on the Nigerian Stock Exchange last summer, adding around \$160 million to the market capitalisation. Its oil and gas client base includes Shell, Total, NNPC and Subsea 7, among others. Caverton Helicopters Limited is a subsidiary of the Caverton Offshore Support Group.

Caverton is expanding its fleet. In February, Waypoint Leasing, of Limerick, Ireland, announced it had reached agreement with Caverton to lease one new AgustaWestland AW139 and one Bell 412EP, both of which, it said, had been delivered.

“This marks our first transaction in west Africa, which is already a significant helicopter leasing market and expected to continue growing long-term. We are confident that this marks the beginning of a long and productive partnership with Caverton,” said Ed Washecka, Waypoint CEO.

Currency weakness has, however, had a major impact on international operators in Nigeria of late. With the Naira falling from 160 to the dollar in May

2014 to 200 at the end of February 2015, international operators like Bristow have been forced to report major financial statement adjustments. Weakening oil prices have also contributed to the headwinds facing operators in Africa.

“We have seen impacts to our oil and gas transportation business as customers look to reduce costs, given the dramatic drop in oil prices,” said King.

“We are taking decisive action to sustain our business during the downturn, including proactively working with clients on innovative solutions for cost efficiencies and maintaining strict cost discipline throughout our company.”

However, Bristow and Caverton are not the only players in west Africa. As Michael Savva, senior associate, Watson, Farley and Williams (Middle East) LLP in Dubai, explained: “We have worked for CHC Helicopter in relation to its leasing arrangements into Nigeria with Atlantic Aviation, a joint venture between CHC Helicopter, the world’s largest helicopter offshore services company, and Jagal Group, a leading Nigerian industrial conglomerate with diverse operations in the oil and gas sector.”

“In addition to Nigeria and Angola, we have seen aircraft leased into Equatorial Guinea for



operation in the oil and gas sector.”

And Nagel observed: “Other examples of robust operations include Cairo-based PAS and Aero Contractors fixed-wing operations in Lagos connecting to helicopters for offshore support at Port Harcourt.

“Also, a growing strength in west Africa is Belgian company Noordzee Helicopters Vlaanderen (NHV) which, in 2014, acquired Blueway Group, including DanCopter, Blueway Offshore Norway, Airlift and Vertech Offshore.”

Nigeria’s Toucan Aviation focuses on charter management for the energy sector in Nigeria and the sub-Saharan region. “We interface with the rotary community on a daily basis as our clients fly across the region with jets and then transfer to helicopters to access the harder to reach locations or offshore destinations,” explained CEO Achuzie Ezenagu.

“There are not as many local operators as one would expect, given the capacity of our oil and gas operations. Any investors seeking to come into the local Nigerian market are most certain to turn a decent profit but there are pitfalls that need to be avoided.

“The first is the local content laws. Foreign companies must team up with tried-and-tested

local partners, who are committed to the long-term success of the venture. There will also be a need to establish a parallel maintenance culture as spare parts and competent maintenance staff will always be hard to come by,” he added.

Toucan has noticed a major increase in the use of helicopters for short-hop trips that assist clients to avoid major traffic in the inner cities and also to reach rural towns that are not easily accessible through the road networks.

“We have found that the Agusta 139s seem to be the helicopter of choice for most of the rotary wing operators in our region,” said Ezenagu.



Nagel said recent offshore and onshore helicopter work had taken place in the mature market of Libya, with a similar situation with Algeria onshore. “There has been recent offshore exploration in Morocco and numerous Middle East helicopter companies are getting established in north Africa,” he said. “In South Africa, the local operators are Starlite and Titan. Both support oil and gas, the UN and many other markets.”

Major global players are also looking to take

advantage of the growth in oil and gas services in east Africa.

“Numerous operators are seeking to support exploration and production companies. These include CHC, Bristow, Caverton, and Heli Union,” said Nagel.

“Everett Aviation, based in Nairobi, Kenya and Dar es Salaam, Tanzania is likely to grow with the supply partnership of Bristow. Everett leased three AW139 helicopters from the Bristow Group in 2010 in support of Statoil’s drilling operations offshore in Tanzania and Mozambique. Two aircraft were used for crew change and a third on search and rescue.”

“In other areas of the world, helicopters tend to service a number of industry sectors. As well as oil and gas, you have emergency medical services, search-and-rescue, police, and training. Oil and gas is, though, far and away the biggest market,” said Savva.

“The same can be said of western Africa, although I expect that an even greater majority of heli support there is focused on oil and gas. Given the economies and principal sectors in places such as Nigeria, Angola and Equatorial Guinea, “workhorse” helicopters transporting employees to and from oil rigs is critical to the oil and gas sectors in those countries.”

LEADING THE INDUSTRY IN INTEGRATED AVIONICS



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'ROC AND ROLES

Heliconia Aero Solutions is pioneering civil helicopter operations in Morocco as the country's only indigenous rotary-wing specialist. The company's burgeoning success also demonstrates the untapped potential of a market that is primed for growth.

Sometimes the best entrepreneurial decisions are taken quickly, at least if the inception of Heliconia is anything to go by. In January 2008, a chance conversation with friends in Casablanca led to an unexpected investment opportunity for Aurélie Giraud and Daniel Sigaud to create Morocco's only home-grown civil helicopter business.

Neither of them had the concept remotely on their career maps. Giraud was due to take up a posting in Nigeria with Bristow, after working with the operator for several years as a flight instructor in Florida. Sigaud had built up a successful oil and gas logistics business in Nigeria and Angola, and was anticipating retirement, albeit with an eye on how to best use his newly acquired Eurocopter EC130 B4 helicopter.

In a matter of three days they decided to take the plunge and set about building a business from scratch.

Recalling how quickly the decision was taken, Giraud said: "It was clear to us very

early on that there was a growing need for helicopter transport and aerial work in Morocco and at that time there were no truly 'local' Moroccan solutions. The time was right for us to fill that void, so we just said 'Let's do it'."

The origins of the Heliconia business of today can be traced to the acquisition of Helisud Morocco in March 2008, a business that represented the last vestige of helicopter companies operating in the 2000s.

Helisud comprised a pilot, a mechanic and a secretary; its operations involved just a few hundred flight hours a year and it relied on the service of a 1961-registered Alouette II helicopter.

Renewing the fleet was only one of the challenges facing the nascent business as, over the next 18

Continued
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As part of the agreement with AgustaWestland, Heliconia signed a distribution agreement for AgustaWestland models in Morocco and, from the start of this year, it also became an authorised service centre for the AW139 (pictured above and right).

CONTINUED FROM PAGE 79

months, six helicopters were purchased, imported and registered in Morocco. Then, in 2010, the company was rebranded as Heliconia.

Lack of infrastructure and skills both presented significant hurdles, while perhaps the most crucial aspect was the need to work in partnership with Morocco's Department of Civil Aviation to develop a solid foundation for a civil helicopter industry.

Prior to 2000, Morocco's airspace was off limits to private helicopter operators and attempts to kick-start the sector in subsequent years were beset by problems.

Giraud was appointed general manager for Morocco, a role she still holds now, although with a wider remit as the company looks to expand further into Africa: "It was definitely a big challenge to establish the business, especially in the early days. As an example, to begin with we had no authority to land other than at an airport,

"We have a great belief in Morocco as a place to do business. It is stable, open to investment and there is real potential to grow because the industry is starting from such a small base."

AURÉLIE GIRAUD

otherwise it took three weeks for approval to be granted.

"But, on the other hand, we have a great belief in Morocco as a place to do business. It is stable, open to investment and there is real potential to grow because the industry is starting from such a small base."

Heliconia's headquarters are in Marrakech and what began as a five-person business has blossomed to number around 100 employees, mirroring an increase in the fleet's flight hours in Morocco to more than 3,500 annually.

The total fleet has swollen to 25 helicopters, including the French operation, while 14 of these are used in Africa. The fleet operates from five locations in Morocco, plus international missions in more than 10 countries in Europe and Africa, including Mali, Mauritania and Senegal.

The company's success has been built on a diverse range of operations including aerial work, heavy lifting, forestry support (fire suppression),

VIP transport, geo-seismic surveys, high-end tourism flights and heli-skiing. The popularity of Morocco as a setting for movies also presented opportunities for location scouting.

Between 2008 and 2014 Heliconia launched a major investment programme, ploughing nearly €40 million (\$50 million) into infrastructure and associated developments that would provide a platform for growth. Investing in human resources, property and equipment, the business created Heliconia Industries as a focal point for maintenance and repair services in March 2010.



The shareholders then finalised the acquisition of France's JCE Helicopters and its subsidiary Heli-Challenge in November 2012, providing a gateway to European operations and a workshop with European standards and new operational structures.

Today Heli-Challenge has developed a Part 145 secondary maintenance base in Marrakech, with Agadir and Dakhla as line maintenance bases, through an agreement with Heliconia Industries.

The launch of exploration for oil off Morocco's coast has brought a new dimension to the civil helicopter industry in the country and has injected even greater impetus into Heliconia's growth over the past two years.



The presence in the country of international energy giants such as Total and Shell, and the creation of 35 ‘blocks’ of territory for exploration offshore, underline the potential of the country’s natural resources.

Giraud said: “When we started the company we talked about what might happen if the offshore market really expanded and, from the start of 2013, it was clear that oil and gas companies needed helicopter support, but also that we needed to become a credible player in this market.”

Working with partner Tunisavia, Heliconia secured a four-month contract with Cairn Energy in August 2013 for offshore transport using two Eurocopter AS365 N3 Dauphin helicopters, followed by a longer contract with US oil company Kosmos Energy. Since then the company has been gradually expanding its presence in the offshore sector.

Recognising the stringent operational safety requirements of the offshore industry, Heliconia also made a significant strategic decision to acquire two AgustaWestland AW139 medium twin helicopters. To bridge the gap while these aircraft were being built, the two companies agreed a lease deal for a further two AW139s.

Heliconia has now taken delivery of both AW139s, which will be used to support offshore customers in Morocco, while the company says

it expects to take up an option for two more of the type this year, confirming the strength of the offshore sector as a driver of demand. Although offshore operations only account for about 15% of total flying hours, Giraud said this application is responsible for a growing proportion of Heliconia revenues and that should a significant discovery of oil be made, it could be a “game-changer” in terms of demand for helicopter support in Morocco.



Alongside its flight operations, Heliconia has also been investing in other parts of the business with a view to longer-term growth.

As part of the agreement with AgustaWestland, the company signed a distribution agreement for AgustaWestland models in Morocco and, from the start of this year, it also became an authorised service centre for the AW139.

To date its maintenance operation has been focused on the requirements of its own fleet, but will in future involve more third-party work.

And what of further expansion beyond Morocco?

“First of all we are committed to maximising our business in Morocco,” said Giraud. “However, we also believe that there is a lot of potential in Africa as a whole. This is a market we know well and we

are looking to see how we can focus our efforts, particularly in west Africa. I have also spent time in Cape Town for the Africa Oil & Gas Conference recently and we are looking at a range of options.

“The drop in the oil price [from \$100 a barrel to \$80 at the time of writing] is making the big players think a little differently about exploration but there is still a lot of untapped potential in Africa. This is where we see the next phase of our development.”

It seems pertinent to ask about the experience of swapping a flight instructor role and the well-developed infrastructure of Florida for a fledgling business in Morocco: “All I knew before was the USA and it is a completely different game here. Our goal was to build a business and that has really coincided with the development of the civilian helicopter industry in this country, so it has not only been about what we do inside the company but also how we work with the authorities,” said Giraud.

“Crucially, we are doing all this with European standards in terms of safety and how we operate and this is helping to remove any pre-conceptions among potential customers about dealing with a local partner in Morocco. It’s been a steep learning curve but exciting at the same time.”

What better definition of the life of an entrepreneur?

Egypt's Petroleum Air Services is weathering a severe downturn in its tourism business and, as Alan Dron reports, is continuing to turn in profits – with expansion promised for the near future.

PAS MASTERS

There are not many airlines specialising in providing services for the oil and gas industry. There are even fewer that combine that specialism with normal commercial flights.

However, since 1983, Petroleum Air Services of Egypt (PAS) has handled both types of service, mixing weary engineers and roustabouts returning from remote drilling locations in the North African desert and the Red Sea with excited tourists bound for the splendours of Upper Egypt's ancient artefacts in Luxor, Aswan and elsewhere.

Nasr City, Cairo-based PAS is owned by the Egyptian General Petroleum Corporation (75%), but with a significant minority shareholder in the shape of one of the world's best-known helicopter operators, Bristow Group, which holds the remaining 25%.



Bristow, initially UK-based but now headquartered in Houston, Texas, has partnered PAS for more than three decades, with the Egyptian company benefiting from Bristow's experience in operational and technical rotary-wing issues.

It has become the sole service provider of helicopter and fixed-wing services for all hydrocarbon companies in Egypt and its aircraft criss-cross both the Western Desert and Red Sea to provide the country's oil and gas industry with personnel and supplies.

To those outside the Middle East, the Egyptian



A quartet of helicopter types – an AgustaWestland AW139 and Bell 206, 212 and 412s – wait in the midday sun for their next sorties.

oil and gas industry is little known. While small by Saudi or Kuwaiti standards, it still provides a useful revenue stream for the nation.

According to the US Central Intelligence Agency, Egypt had proven oil reserves of 4.4 billion barrels in 2013. It also estimated Egypt's natural gas reserves at 2.19 trillion cubic metres, just over 1% of the global total and equivalent to around 35 years of production.

The country is, in fact, a net exporter of oil. While quantities have declined in recent years, the high price of hydrocarbons has, until recently, played a significant role in Egypt's economy. The country also exports liquefied natural gas.

Exploration for hydrocarbons is increasing rapidly and PAS anticipates increasing its fleet "in the near future" to cope with this, said a spokeswoman.

In the past few years, the political turmoil that has periodically enveloped Egypt has radically changed PAS's business. Prior to the Arab Spring in 2011, the oil and gas sector accounted for 60% of PAS's work, with tourism making up the remaining 40%. Today, the slump in visitor numbers due to unrest in the country means that just 10% of the airline's operations are tourism-related.

Given this difficulty, PAS has done well in continuing to turn in healthy financial figures. Net profit last year was \$24 million.

Despite the loss of tourists, PAS still flies almost the same number of fixed-wing hours as it did a few years ago, following a drive to find new avenues for its fleet, notably using its first passenger jet, a Bombardier CRJ-900 NextGen regional jet for services to Basra in Iraq.

Acquisition of the CRJ-900 in 2011 raised some eyebrows both within the company and among observers, given the company's focus on turboprops for its short domestic sectors. However, said the spokeswoman, the purchase was made following a feasibility study that looked at both the company's plans and clients' requirements. It narrowed the choice to the Canadian-built jet, which is now used both for oil sector work in Egypt's Western Desert, near the

THE PAS FLEET

PAS's fixed-wing fleet currently consists of a single Bombardier CRJ-900 NextGen regional jet (with a second due to join in June) and five Dash 8 Q300 turboprops. Its helicopter arm comprises 15 Bell 412HP/EPs, 10 Bell 212s, six Bell 206 LongRangers, two Bell 206 JetRangers, three Eurocopter EC135s and a pair of AgustaWestland AW139s.

The final De Havilland Canada Dash 7 – until a few years ago PAS was one of the last users of the four-engined STOL airliner, with five on strength – was recently retired and is awaiting disposal.



Main picture: Bombardier's Dash 8 Q300 now undertakes most of PAS' fixed-wing operations. The last of the company's STOL Dash 7s has recently been retired.

Inset: PAS's first CRJ-900 has proven sufficiently successful in service for the company to firm up a second example.



Libyan border, and for international services for both the oil and tourism sector.

The success of the aircraft in these roles led to PAS firming up an option in November 2014 for a second CRJ-900, which will be delivered this summer. Given the aircraft's range – roughly 1500nm / 2800km – this would enable it to cover the entire Middle East and as far south as Djibouti. Both Africa and the Gulf are regions in which PAS has expressed a wish to expand.

"When we purchased our first CRJ900 NextGen aircraft we were seeking a proven jet to enhance services to our customers and for our tourism destinations," said general Yehia Hussein, PAS' chairman and managing director, announcing the firming of the second order for the aircraft.

"The CRJ900 NextGen aircraft has delivered exactly what we were seeking and is performing very well in the harsh environmental conditions that are typical in the African environment. It is also delivering outstanding fuel efficiency and reliability, so we are purchasing another to expand our operations."

PAS was notable in recent years as being one of the few remaining operators of the de Havilland Canada Dash 7, the niche four-engined short take-off and landing (STOL) airliner. Five of the 1970s-vintage design were operated at one time, but the

last was retired recently, due to a combination of age and declining requirements from clients for the 50-seat aircraft's capabilities. The airline plans to replace these with aircraft of the same capacity, but has not yet revealed which type it will acquire.

Currently, some 85% of fixed-wing services are domestic, with 15% international. One unusual facet of the company's operations is what it describes as 'semi-scheduled' services, which are charter trips requested by clients but with regular, fixed dates.



While some fixed-wing operations take place outside Egypt's boundaries, PAS' rotary-wing services – which constitute the bulk of its operations – are wholly domestic. More than 50 helicopter sectors are operated on an average day and are all off shore.

As well as transporting personnel and supplies to oil and gas platforms, PAS undertakes a 24-hour medevac service for the oil industry and its oil-related activities include both pipeline surveillance and aerial photography.

The company, which has a workforce of around 1100, including 150 pilots and 465 engineers and technicians, has long undertaken

deep maintenance, including 'D-checks', of its own aircraft, but is now expanding its activities in this area. It has recently received approval from the Egyptian Civil Aviation Agency to undertake third-party repairs and has struck agreements to provide these services with several neighbouring nations.

Given the recent rush to find a means of tracking aircraft in the aftermath of the disappearance of Malaysian Airlines flight MH370 in the Indian Ocean, it is notable that PAS has, for some time, operated a tracing system known as 'Sky Connect' to meet oil and gas industry requirements.

This is a flight-tracking system from US electronics company Honeywell that allows PAS's operations centre to monitor on a real-time basis the movements of all company flights. It makes use of the Iridium satellite system to enable instant voice and text communications and allows the aircraft to send messages to alert operations centre personnel to any abnormal situations.

In the operations centre, web-based software displays the aircraft location, GPS flight plan, crew status and weather overlays on topographical maps to give ground personnel an overview of all airborne aircraft. Incoming text messages from the aircraft are displayed on the map.

AFRICAN OPEN SKY, THE CONTINUED GROWTH

For its seventh year running, the Trip support group AFRICAN OPEN SKY (AOS) has successfully strengthened its growth and volume of business aviation flights with an overall growth of 45 percent in traffic versus an overall average of around 30 percent for this sector throughout Africa. This strong growth has inspired the Cote d'Ivoire-based private company to consolidate its network across Africa by opening in February and March 2015 offices in Djibouti, Tanzania and Burundi.



In addition to the above-mentioned locations, AOS which was formed in 2009 own today a total of 18 offices in **Benin, Burkina Faso, Cameroon, Congo, Democratic Republic of Congo, Ethiopia, Gabon, Guinea Bissau, Guinea Conakry, Kenya, Mali, Niger, Nigeria, Senegal, Sierra Leone, Sao Tome, Togo, and United Arab Emirates** (especially opened to assist its glowing Middle Eastern client base), a part of more than 30 local representations in the continent. The company is incontestably as per its founder and CEO Max O. CISSE the Trip support company having the more directly-owned offices in comparison with its competitors based outside Africa.

Max O. CISSE who has been awarded by THE EUROPEAN – CHASE PUBLISHING as *the Aviation Business Personality of the Year 2014 – Africa* explained that “one of fundamental differences with others companies is that our offices are fully established as locally registered businesses and are approved by national civil aviation and airport authorities to coordinate flight operations. It is very Important to have this certification because local authorities generally insist on this because they consider support companies, effectively, to be the same as the aircraft operators themselves in terms of legal accountability for flights,”



He also commented that “Since the legal consequences of breaching these regulations can be quite severe, it is vital for operators to have the expert assistance and support of a legally established local trip support company. And nothing is easier nowadays in Africa than getting short-notice permits or finding an AOS supervisor ready to arrange and pay all requested charges on behalf of a crew, even in countries known to be complicated,”

AOS main activity is rendering Flight services to governmental, commercial, corporate, and private operators. The company provides its own handling supervisors network in each African country and assist customers with short notice permits, and technical, passenger or cargo ground-handling services - transportation, hotel accommodation, catering, refueling, maintenance, aircraft security, flight planning, computerizing ATC, weather-NOTAMs, and all others services in connection with handling activities - at unbeatable prices and without a third-party commission



Botswana is keen to invest in new airports and facilities, especially at the tourist hub of Maun. Oscar Nkala reports.

BOTSWANA'S MAMMOTH AMBITION

«Le Botswana déploie ses ailes» – Page 87

The Civil Aviation Authority of Botswana (CAAB) has (as of November 1) started the construction of a new air traffic control tower at the Maun International Airport.

It is a development that marks the beginning of a nationwide project, through which the Government seeks to revamp, upgrade and modernise airport infrastructure and security to consolidate the country's position as one of the most accessible tourism destinations in Africa.

The new 30metre tower is a major infrastructural upgrade project meant to complement the airport's new 4km runway, which was completed by Dutch airport services contractor Netherlands Airport Consultants (NACO).

CAAB public affairs manager, Modipe Nkwe, said the new project comprises a new air traffic control tower, a technical block for housing special electronics equipment and a general storage and equipment warehouse.

Chinese civil engineering contractor Colic Construction is building the tower. It is designed to bring the length and breadth of the newly extended 4km runway under the direct observation of air traffic controllers.

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Maun International Airport is the key gateway to Botswana's prime tourism zones in the northern Ngamiland. These include Kasane, Chobe and several remote tourist destinations in the Okavango Delta, which are well serviced by aerodromes and airstrips.

The Maun air traffic control tower is part of a three-component CAAB project, which also involves the construction of the new 4km runway and a new main airport terminal building to handle more arrivals. The projects were supposed to have been completed in time for the FIFA World Cup, which was held in South Africa in June 2010. But all components missed the deadline due to lack of funding.

Nkwe said the construction of the new main terminal had not started because it is still in a draft phase. It is likely to resume in the first half of 2015, subject to the availability of funding.

Elsewhere, the CAAB has also started the construction of a new main airport terminal to serve increased domestic and regional flights at the Kasane Airport, which is located on the southern bank of the Zambezi River and is the main border gate into the Victoria Falls in neighbouring Zambia and Zimbabwe.



The project began in October 2014 and is expected to be completed in October 2016. The airport infrastructure upgrade programme will see the building of new airport terminals, runway extensions and security upgrades at main airports nationwide.

Vast infrastructural upgrades will also be made to landing and terminal facilities at airstrips and aerodromes, especially those which serve the tourist aviation industry in the Chobe and Okavango Delta districts. More than 20 airports, aerodromes and airstrips will be covered in the CAAB airport infrastructure upgrade programme.

Meanwhile, CAAB chief executive officer, Olefile Moakoti, said Botswana needed to invest more in airport and aviation security in order to ensure passenger airline safety and start complying with the service standards and safety requirements of the International Civil Aviation Organisation (ICAO).

Two ICAO security-related audits, which were conducted in 2006 and 2008, found that Botswana's aviation sector was not fully compliant with international aviation safety standards, leading to a continued poor rating of its aviation services sector.

In a paper presented to a national

Vast infrastructural upgrades will be made to landing and terminal facilities at airstrips and aerodromes, especially those which serve the tourist aviation industry in the Chobe and Okavango Delta (pictured right).

aviation safety conference held recently in Maun under the theme 'Driving Botswana's aviation safety environment to international standards,' Moakoti said Botswana's efforts to improve airport and airline security would be greatly enhanced if the Government equipped the newly created Aviation Security Oversight Inspectorate (ASOI) with the tools essential for the discharging of its mandate.

"To complement the on-going infrastructural developments and upgrades in our airports, aviation security has to be improved by way of acquiring some special equipment like scanners, X-ray screening machines, closed-circuit TV (CCTV) cameras and other equipment," Moakoti said.

The aviation inspectorate is empowered to ensure that all airline operators and airports in Botswana comply with national aviation laws, in line with ICAO regulations. Its duties include airline certification, approval and quality control. It was created in 2013 following the Government's adoption of the Aviation Security Act of 2011 and the revised Aviation Security Regulations of 2013, which both advocated the formation of a national aviation security agency and the creation of a mechanism to ensure airline compliance with national and ICAO aviation services regulations.



CRASH HINDERS POLICE BID TO BEEF

The Botswana Police Services (BPS) Air Support Branch has issued a tender for at least three new helicopters to beef up its aviation fleet, which has been reduced from five aircraft in 2009 to just two at the present due to a combination of breakdowns and air traffic accidents.

BPS Air Support Unit (ASB) director Arthur Johnson told local media in Gaborone that the police air wing has had plans to expand its fleet since the beginning of the year.

However, he said the planned acquisition of the helicopters has been hobbled by the shortage of funds, despite the tenders that have already been issued seeking suppliers.

Johnson said the ASB unit is now hard pressed to acquire new aircraft following the crash of one of the BPS' three Eurocopter AS-350B3s while on a routine

"The most urgent task facing the ASB right now is to replace the helicopter that was lost during the accident."

ARTHUR JOHNSON

mission flight near Maun in April this year.

The crash killed all three personnel on board and left the BPS with just two helicopters to perform the key policing roles of troop support and transportation during criminal pursuits and recovery operations, traffic surveillance, public order monitoring and the conduct of search and rescue (SAR) missions across the vast country.

"The most urgent task facing the ASB right now is to replace the helicopter that was lost during the accident. We had plans to increase our fleet even before the crash.

"There was even a tender notice that was floated before that accident. But, right now, we are under pressure to replace the lost helicopter so that we can at least go back to our normal routines," said Johnson.

Prior to the crash, the ASB had three operational aircraft with two based in

SOMMAIRE

Le Botswana déploie ses ailes

Le Botswana est déterminé à investir dans de nouveaux projets aéroportuaires, en particulier au centre touristique de Maun. Le programme de mise à niveau concerne plus de 20 aéroports, aérodromes et de pistes d'atterrissage.

*Des détails avec **Oscar Nkala**.*

L'Autorité de l'aviation civile du Botswana (CAAB) a commencé la construction d'une nouvelle tour de contrôle à l'aéroport international de Maun en novembre dernier.

C'est le début du projet national du gouvernement qui cherche à moderniser et à améliorer l'infrastructure et la sécurité aéroportuaire. La finalité : consolider les assises du pays comme l'une des destinations touristiques les plus accessibles en Afrique.

Le directeur des affaires publiques de la CAAB, Modipe Nkwe, a déclaré qu'outre la nouvelle tour de contrôle dont les travaux ont été confiés à la société chinoise Colic Construction, le nouveau projet comprend une aile technique pour le stockage du matériel électronique spécialisé et l'entreposer des équipements.

L'aéroport international de Maun est la porte d'accès aux zones touristiques dans la région nord de Ngamiland.

La tour de contrôle fait partie d'un projet à plusieurs composantes dont l'extension de la nouvelle piste de 4 km par la Netherlands Airport Consultants (NACO) et un nouveau terminal pour gérer plus d'arrivées. Ces projets ont pris du retard en raison d'un manque de financement.

Selon Modipe Nkwe, la construction de la nouvelle aérogare devrait reprendre au cours du premier semestre 2015, sous réserve de la disponibilité des fonds.



Par ailleurs, la CAAB a lancé les travaux de construction d'un nouveau terminal principal pour augmenter le nombre de vols intérieurs et régionaux à l'aéroport de Kasane situé sur la rive sud du Zambèze. Les infrastructures à l'atterrissage, du terminal et des aérodromes, en particulier ceux qui desservent l'aviation de tourisme dans les districts de Chobe et Okavango Delta seront également améliorées.

Pour sa part, le chef exécutif de la CAAB, Olefile Moakoti, a affirmé que le Botswana doit investir davantage dans la sécurité des passagers pour être aux normes de services et des exigences de l'OACI. Il a annoncé l'acquisition d'équipements spécialisés pour le dépitage et la surveillance.

Toujours concernant la sécurité, les services de police du Botswana (BPS) ont lancé un appel d'offres pour l'achat d'au moins trois hélicoptères.

Selon son directeur, Arthur Johnson, ses services disposent de onze pilotes formés. La formation demeure un pilier important malgré les facilités aériennes insuffisantes. L'unité de l'air possède toutefois les ressources humaines adéquates pour piloter jusqu'à treize hélicoptères.

A noter que trois hélicoptères AS350 B3 d'Eurocopter ont été livrés entre 2008 et 2009. Equipés de systèmes d'observation à infrarouge (FLIR), du Spectrolab SX 16, de facilités de sauvetage et de chargement de fret, les hélicoptères Eurocopter sont devenus un atout majeur lors des missions de lutte contre la criminalité.



UP ITS HELICOPTER FLEET

Gaborone. One was primarily devoted to support police operations in the capital, while another conducted aerial patrols over Kang, Lobatse and Gantsi in the east and south-east.

The third helicopter, which crashed, was based in the northern city of Francistown, from where it conducted aerial patrols and troop support operations in Kasane, Maun and Lethlakane and Orapa in the central part of the country.

Despite the lack of sufficient aerial assets to support police operations, the BPS air unit has enough manpower to fly up to 13 helicopters.

"Right now we have 11 trained helicopter pilots. We have four who are based in the Francistown policing district and we have three others who are operational here in Gaborone. There are

also two instructor pilots who do fly when required to, but they dedicate most of their time to training the operational pilots," Johnson said.

Two more pilots are presently undergoing training in South Africa and the service has plans to send a further two for the same training programme.

The three Eurocopter AS350 B3 helicopters were delivered between 2008 and 2009. Two older Bell helicopters, which were ordered earlier, have since broken down and are in a state of disrepair.

Equipped with forward-looking infrared (FLIR) observations systems, Spectrolab SX 16 night sun, rescue hoist, cargo swing and external loud hailers, the Eurocopter AS350 B3 helicopters have become a key force multiplier asset in the BPS crime-fighting missions.



The company's ATR 42-500s may be replaced with larger types, but Air Botswana plans to retain a turboprop component in its fleet.

Michael Moalosi had a clear idea, from a very young age, about what he wanted to do when he grew up.

"Ever since I was young, I've been intrigued by science and technology. As a boy, I listened to the radio. I remember I dismantled it and couldn't get it back together," he recalled.

"My mother came home. She wanted to listen to the news, but she couldn't because by now the radio was in pieces. She gave me a good hiding and, at the back of my mind, I thought that in the future I wanted to be able to fix that radio. To me, that was a profound turning point."

Moalosi went on to become an aeronautical engineer, doing his preliminary studies in Botswana, before moving to Scotland to complete his qualifications.



Armed with a new-found passion for Scottish hill-walking, he returned home. "Education is free [in Botswana], but you sign a bond when you go to school and, when you come back, you must work for the government for a couple of years. We are blessed to get a good education," he explained.

Rather predictably, Moalosi found himself indirectly paying for his schooling by working for the national carrier. "I was maintaining aircraft, supervising technicians and making sure things were done right."

Once his time was done, he left to join the oil industry and then set up his own business, selling engineering products. But, 10 years after leaving, the smell of kerosene lured him back to Air Botswana. "My love and my heart stayed in aviation,

RADIO STAR WHO'S SET TO CHANGE THE PROGRAMME

*From the day that Air Botswana board member Michael Moalosi disassembled his mother's radio to figure out how it worked, he always knew he would end up in a technical role. Now, as **Victoria Moores** discovers, he is responsible for safety, quality and security at the Gaborone-based carrier.*

so when I was asked if I was interested in this role, I was almost willing to do it for free."

That was three years ago. "I have a much more strategic role now. I am on the board and am responsible for safety, quality, security and some procurement. We [the Air Botswana management] are a team of a lawyer, an accountant and an engineer. We are really trying to turn things around, to improve the airline. It's all about change management. The airline must be self-sustaining. It must be able to generate its own income and cover its overheads," he said.

Even though Air Botswana is state-owned, the management team is trusted by the Government to run the airline. "I would really like to commend our Government. They recognise us as

professionals; they rely on us and are very supportive of the airline, because they recognise that it is intertwined with the tourism industry and they want to see the country succeed," said Moalosi.

He responds very warmly to the suggestion that Botswana has a similar approach to aviation as the Gulf States. "I love that; that is it exactly," he declared, with a huge smile.

Tourism is a big deal for Botswana and the country's prime attraction is its national parks, which are home to the famous 'big five': buffalo, elephants, leopards, lions and rhinos. "Botswana is a wonderful, stable, peaceful country. We work hard and it is prosperous. There is a lot of mining – people come from all over the world to buy our diamonds – but diamonds will not be forever. Second to

"We are really trying to turn things around, to improve the airline. It's all about change management. The airline must be self-sustaining."
MICHAEL MOALOSI



Air Botswana has now retired its two BAe 146-100s (front) and uses two more modern Avro RJ85s (one of which can be seen in the background) as its current jet equipment.

that, our most profitable and sustainable industry is tourism.”

This national significance may, in part, explain why numerous attempts to sell Air Botswana to private investors have failed. “The privatisations haven’t worked and that has been very frustrating for the Government,” said Moalosi. “Now we are trying to make sure that Air Botswana is run as a sustainable business. I like the model of Ethiopian Airlines, where it is 100% owned by the government, but is run independently and is profitable. I asked them about their winning formula. They have a very clear strategy. They set themselves very high targets and then exceed them. I really admire that.”



With this in mind, the management team has just put together a new five-year plan for the airline, which will see it renew its fleet and focus on delivering a good, solid customer experience. “Customer service and reliability is core. Passengers want to go at the time they are supposed to go. You need to consistently meet your objectives.”

Although the plan had been finalised, it had not yet been presented to the Government, so Moalosi was unable to give many specifics. “They wouldn’t be pleased to read things in the media before they have been briefed,” he explained. “Once they give their approval, the whole world can know.”

Today Air Botswana operates a fleet of six aircraft, comprising two Avro RJ85s, one ATR 72-500 and three ATR 42-500s. Of these, the 20-year old ATR 42s need to be switched for newer equipment, but the ATR 72 is much more recent. These will all be tackled under the plan.

Cargo has also been earmarked as an

area for development. “That is one opportunity which we will exploit in a big way,” said Moalosi. “To me, there is potential. There is no doubt about it.”

Rail is currently the prime transport mode for freight flows in Botswana but Moalosi sees scope to increase revenues by carrying high-priority cargo shipments – such as aircraft spares, or urgent business supplies – on board Air Botswana aircraft. This market will probably be served using combi- or belly-capacity on its passenger services and will link in with the fleet renewal.

Another revenue stream could be found in providing third-party services, such as ground handling, to other carriers. “Other airlines are interested. People [in African aviation] have to collaborate and get together; it’s so important. It’s all about collaboration, working as a team and creating synergies.”

Above all, the new strategy will be underpinned by Moalosi’s relentless drive for safety. “You can’t afford to have an unsafe operation. There is no compromise. Safety, security and reliability, making sure the aircraft are properly maintained, are all paramount. This is something I am very passionate about – it’s what the British taught us – if an aircraft is not airworthy, I refuse to put my signature and stamp to it. Engineers have the power to ground aircraft because safety is about people’s lives. You can’t just think of money and short-term gain. I want us to be resolute and steadfast in what I believe.”

Although Moalosi’s mother may have missed one or two radio news broadcasts during his childhood, she is now very happy. Maybe it was worth losing a radio to ensure the future safety of Air Botswana – and her other household appliances.

SOMMAIRE

Une star de la radio

Le jour où Michael Moalosi démonta la radio de sa mère pour comprendre comment elle fonctionnait, il réalisa qu’il assumerait un jour une responsabilité dans le domaine technique. Aujourd’hui, c’est l’ingénieur et le responsable de la sécurité, de la sûreté et de la qualité d’Air Botswana que Victoria Moores nous présente.

« Ma curiosité pour la science et la technologie remonte à ma jeunesse. J’écoutais la radio et je me souviens l’avoir démontée. Je n’ai toutefois pas pu rassembler les pièces. Quand ma mère est rentrée, elle n’a pas pu écouter les informations. Elle m’a donné une punition. Et, cet incident marqua un tournant dans ma vie. »

Après des études au Botswana, Michael Moalosi s’envola pour l’Ecosse. Il rentra au pays avec un diplôme d’ingénieur en aéronautique et intégra le service de la maintenance des avions d’Air Botswana.

Michael Moalasi travailla ensuite dans l’industrie du pétrole avant de créer sa propre entreprise. Mais, dix années après, l’odeur du kérosène, le ramena chez Air Botswana.

« J’ai un rôle beaucoup plus stratégique aujourd’hui. Notre équipe comprend un avocat, un comptable et un ingénieur. Nous essayons vraiment de changer les choses », soutient Michael Moalasi.

Même si Air Botswana appartient à l’État, Michael Moalasi se réjouit du fait que le gouvernement reconnaît leurs professionnalismes.

L’industrie du tourisme est un énorme potentiel de développement pour le Botswana qui est connu pour ses parcs nationaux. Elle est très rentable et durable. « Notre pays est stable et pacifique. On vient du monde entier pour acheter nos diamants – mais les diamants ne sont pas éternels. »

Après plusieurs tentatives de privatisation de la compagnie par le gouvernement, l’équipe de gestion actuelle fait de son mieux pour la gérer comme une entreprise durable. Michael Moalosi ne cache pas son admiration pour Ethiopian Airlines dont la réussite repose sur une stratégie bien définie. L’équipe de gestion vient ainsi de mettre sur pied un nouveau plan de cinq ans qui comprend le renouvellement de sa flotte et l’amélioration des services aux passagers. Le fret et la fourniture de services comme la manutention au sol sont également un secteur viable. La sécurité, la sûreté et la maintenance sont des éléments clés de la nouvelle stratégie.

A ce jour, Air Botswana exploite une flotte de six avions, comprenant deux RJ85 Avro, un ATR 72-500 et trois ATR 42-500.



Ben Dahwa is a man with a plan – a five-year plan, to be precise, as he seeks to revitalise staff at Botswana’s national carrier and take advantage of a growing economy.

The new plan, created in conjunction with US-based consultants ICF International, aims to set out the way ahead for Air Botswana and is due to be finalised this month.

Dahwa was reluctant to go into detail ahead of it being presented to the country’s Government, but said that it would aim for expansion of the company’s route network.

“As a national airline, we have got a very clearly set-out mandate, which is to offer an air service in a commercially sustainable manner. So, profitability is to be expected. At the moment, we are not profitable. We are being subsidised by the Government.”

Dahwa declined to give figures, but made the point that the bottom line in the company’s annual accounts was not the only factor to be considered.

“We are an economic enabler. This means that the desired output of the shareholder – the Government – is not just the bottom line and stand-alone profit/loss figures. Air Botswana’s relevance is better measured by its contribution to gross domestic product (GDP). There is enough evidence that Air Botswana is contributing positively to the GDP.

Air Botswana is seeking new aircraft and more automation as it prepares for the future following an unsettled few years.

Alan Dron spoke to new general manager, Ben Dahwa.

DAHWA – THE MAN WITH A PLAN

“There are certain routes that, if we were purely chasing a black bottom line as a business, we would probably not be operating. But the overall effect [on the country] is positive.”

The carrier currently operates from the capital, Gaborone, to three domestic destinations – Maun, Francistown and Kasane – as well as to the Zimbabwean and Zambian capitals of Harare and Lusaka, plus Johannesburg and Cape Town.

The latter two destinations are vitally important. “At the moment, South Africa is a huge part of the business,” said Dahwa. “Around 60% of our traffic levels are from South Africa. But, going forward, if we start offering services to other destinations within the sub-region – which is what we are really targeting –

I think we will probably then see a new market coming through.”

The economic factors behind Dahwa’s hopes for growth are promising. The southern African sub-region is seeing growth of 4-4.3% and economic growth in Botswana itself has been just under 5% a year since 2012.

Botswana is regarded as one of the best-run countries on the continent, with the US-based Heritage Foundation ranking it 27th globally in terms of economic freedom, a measurement that takes into account such factors as regulatory efficiency, the limited role of government in the economy, and freedom from corruption.



SOMMAIRE

Le grand plan de Dahwa pour Air Botswana

Air Botswana est à la recherche de nouveaux avions et une plus grande automatisation pour préparer l'avenir. Alan Dron s'est entretenu avec le nouveau directeur général, Ben Dahwa.

Ben Dahwa a un plan de cinq ans pour redynamiser le personnel du transporteur national et profiter d'une économie en pleine croissance. Le nouveau plan, élaboré avec le soutien des consultants d'ICF International basés aux États-Unis, est en cours de finalisation.

« En tant que compagnie aérienne nationale, nous avons un mandat très clair : offrir un service aérien commercialement viable pour assurer la rentabilité. »

Selon lui, la compagnie est un catalyseur économique qui contribue positivement au PIB du Botswana.

Le transporteur opère actuellement depuis la capitale, Gaborone, vers trois destinations domestiques : Maun, Francistown et Kasane. Il dessert aussi Harare et Lusaka. Johannesburg et de Cape Town sont également très

importante puisqu'elles représentent environ 60% du trafic.

Les données économiques et les perspectives de croissance sont prometteuses et Ben Dahwa compte en profiter. L'Afrique australe connaît en effet une croissance de 4 à 4,3%. La croissance économique au Botswana est inférieure à 5% par an depuis 2012.



Le Botswana est considéré comme l'un des pays les mieux gérés du continent. Il occupe la 27ème place au classement mondial en termes de liberté économique de la Heritage Fondation basée aux États-Unis. Les facteurs tels que l'efficacité de la réglementation, le rôle limité du gouvernement dans l'économie et le recul de la corruption ont été pris en

considération lors de la notation.

Air Botswana transporte 330000 passagers par an. Ce chiffre diminue en raison de la concurrence qui pour Ben Dahwa est bénéfique.

Celle-ci augmente la taille de l'ensemble du marché et pousse la compagnie à s'améliorer. D'où, l'importance des partenariats. La compagnie examine la possibilité d'un partage de codes pour les vols long-courriers.

Par ailleurs, elle doit renouveler sa flotte d'avions régionaux. Outre l'extension du réseau commercial, Ben Dahwa souhaite accroître les activités de fret d'Air Botswana.

Depuis sa nomination, Ben Dahwa a également résolu beaucoup de problèmes. L'automatisation reste une priorité. Il espère ainsi mener la compagnie vers plus de stabilité.

By way of comparison, Botswana’s position in the annual ranking is one place above the UAE and five ahead of oil-rich Norway, while South Africa comes in at 75.

Air Botswana carries around 330,000 passengers annually. This has decreased marginally in the past year or so with the arrival of more competition on the crucial South African sectors by South African AirlinK.

Dahwa, however, sees competition as beneficial, as it both increases the size of the overall market and spurs the company to improve its product. “Enhancing air development in Botswana is one of our real deliverables. If we have good competition assisting us to create that excitement, it’s beneficial to us. We really support that because we see the opportunity of partnering and cooperating with such carriers.”

Code-sharing is one avenue that is being examined to help improve Botswanans’ access to long-haul routes.

Air Botswana has a small fleet and decisions will soon be needed on updating it.

Dahwa declined to go into details of the



re-fleeting before the unveiling of the five-year plan. However: “We’re looking at two things with regard to the fleet. On one side, we’re looking at renewing it, on the other we’re looking at stepping up the gauge.”

He expects to retain a mix of jets and turboprops. And, although the size of aircraft will be ‘up-gauged’: “We’re not expecting to go beyond 100 seats. What’s influencing us is the size of the market domestically and the sector lengths we’re looking at. For example, Johannesburg to Gaborone in a turboprop takes one hour and by jet around 45 minutes.” With such

a marginal difference in sector time, it makes sense to use the more economical turboprops. On longer routes, such as Maun-Cape Town, a jet can be justified.

As well as expanding the passenger route network, Dahwa is also interested in increasing Air Botswana’s cargo activities. “We’ve got a world-class cargo facility at our hub that belongs to our shareholder. Last year the shareholder put it out to tender, which we won, to make use of it for the next five to 10 years.

“Cargo is a huge area that we’re looking at developing in terms of broadening our

Ben Dahwa: “We are too small to shrink. Realistically, the only direction we can go is to grow.”

revenue and so we went into an aircraft, crew, maintenance and insurance (ACMI) arrangement with South Africa’s SkyClass Aviation, which operates a Turbo DC-3.”

When Dahwa joined from Air Namibia in May 2014, he found staff demotivated, partly due to an abandoned privatisation attempt. “In the process, some valuable [staff] expertise and skills flew away. It was a period of uncertainty,” he admitted. This uncertainty had been exacerbated by a rapid turnover of executives through the general manager’s office in recent years. “For any business, that’s not a good sign.”

He hopes that his arrival will mean more stability: “I did with Air Namibia exactly what I’m doing with Air Botswana. I got offered a five-year contract with Air Namibia and served that.”

The other major problem he discovered on arrival at Air Botswana was a poor punctuality record. “There was a whole host of reasons affecting on-time performance. For starters, on paper we had eight aircraft. Two of them, the BAe 146s, have been grounded for a while now and are retired, but the schedule we were operating until the beginning of the year was realistically an eight-aircraft schedule being undertaken by six aircraft. There was no back-up; it was too tight.



“With the consultants we reshaped the schedule. All things being equal, we should always have one aircraft as a spare.

“Secondly, we identified a structural problem. We didn’t have a central point that coordinated and drove operations. We recently instituted an integrated operations control centre so that all departments and structures in the airline have the same visibility of the operation on the same platform.”

Other initiatives have also had an impact on punctuality, which is now averaging 90%, compared to around 70% a year ago. “We’ve set that [90%] as our re-entry point to regain the trust of the market,” he said.

The final part in the jigsaw to improve Air Botswana’s performance, said Dahwa, was the introduction of more automation. “At the moment, we’re a bit too manual in our processes.”

Botswana is a sparsely-populated nation of just 1.9 million people and its airline is similarly modest in size. It will be interesting to see the precise changes that will be made by the imminent five-year plan. One thing, however, is already clear: “We are too small to shrink,” said Dahwa. “Realistically, the only direction we can go is to grow.”



Botswana has good reason to think it needs an active air force and, as Alan Warnes explains, presidential backing can be taken for granted.

How the air force keeps its nose clean...

«Consolider ses capacités de défense» – Page 94

Botswana is an unusual African state in that it is seldom in the headlines for the wrong reasons.

Since becoming independent in 1966 there has been no major upheaval, as has been the case with many other nations in the region.

It shares a border with Angola, Namibia, South Africa, Zambia and Zimbabwe – where trouble never seems to be far away.

An academic report by lecturers from the Botswana University, published in September 2013, even suggests that the Zimbabwe military, during its 2008/9 political crisis, was close to attacking its western neighbour, which it viewed as an external threat to its security issues.

Botswana's requests to the USA at the time for anti-tank missiles, short-range air defences, F-5 support and gunships all came to nothing, as the Americans did not want to harm their relations in the region.



It is because of this regional instability that the Botswana Defence Force Air Wing (BDF-AW), formed in 1977, is a relatively forward-thinking air arm, working in close co-operation with both special forces and the Department of Wildlife.

Headquartered in the capital, Gaborone, it lies 40 miles (60km) south east of the main flying facility – Thebephatshwa Air Base near Molepolole – where the bulk of the BDF-AW is based with eight squadrons and an anti-poaching unit in residence.

The Botswana president, Ian Khama, a former lieutenant general in the Botswana Defence Force, won a second five-year term in October, which should

BDF-AW signed a contract for the acquisition of five PC-7Mk IIs and a simulator in 2011.



British connection nearly gone

Most of the British aircraft that once graced the BDF-AW have all but gone.

Over the past 37 years, there have been a number of different British types flying with the military in Botswana. Six Scottish Aviation Bulldogs were used for basic flying training from 1980 until 1993, when their role was taken over by the Pilatus PC-7s.

Around the same time they were replaced, two Skyvans, which were among the first aircraft to fly with the military in Botswana, were also retired.

Two BAe 125-800s also served, one briefly from June – August 1988, with a second example being taken on in 1990, until it was sold to the Royal Saudi Air Force in 1995.

Eight BAC 167 Strikemaster Mk 83s joined from the Kuwait Air Force in 1988 and five Strikemaster Mk 87s from the Kenyan Air Force were added in 1994 before all nine surviving jets fulfilling a counter-insurgency role were sold off in 1999.

Today, the only reminders of the British traditions that ran through the BDF-AW are the eight remaining BN-2 Defenders/Islanders – but it cannot be too long before even they disappear.

bode well for the BDF-AW. Being a qualified pilot on fixed-wing and rotary aircraft, he has an affection for the wing, which should bode well for its future. He flew himself at 2013's BDF-AW Airshow, in a VIP Bell 412, and last year made a low pass in one of the CN 235s.

The BDF-AW's main responsibility is the protection of Botswana's air space and its borders. Having acquired 10 operational single-seat BF-5As and three dual-seat BF-5Ds from the Canadian Forces in 1997, supplemented by a further two BF-5Ds in 2000, the BDF-AW today operates just a handful. They have suffered from poor serviceability in recent years, stemming largely from a lack of spares for their Mk 16 ejection seats. Nevertheless, by late

Continued
on Page 94



The A29 Super Tucano light attack aircraft.



CONTINUED FROM PAGE 92

2013, they were flying at least three dual-seat BF-5Ds. Their return to service coincided with four BDF-AW pilots completing their F-5 refresher and flight instructor training with Tactical Air Support (TacAir) at Reno-Stead Airport, Nevada in mid-October 2013. During their five-week course, the pilots each received 26 hours of ground school and cockpit drills, as well as nine F-5 training sorties.

In February 2014, TacAir sent instructors to Botswana, to cover the tactical training phase.



There are aspirations to replace these obsolete fighters and the Government is reportedly looking at three options – ex Swiss Air Force F-5s supplied by RUAG; purchase of 12 lightweight KAI FA-50 fighters; or derivatives of the T-50 Golden Eagle supersonic trainers or the Saab Gripen, which has recently led the Swedish company to opening an office in Gaborone.

It remains to be seen if there is any budget for such an acquisition, however urgent the requirement is.

Nevertheless, modernisation of flying training has already occurred, with pilots now switching to a glass cockpit environment. A contract for the acquisition of five PC-7 Mk IIs and a simulator, valued at

Medevac training from the US

As part of 'Exercise Medlite 12' in August 2012, members of the US Air Force's North Carolina Air National Guard (NC ANG) trained personnel from the BDF-AW in how to use its three C-130B Hercules for aeromedical evacuation missions.

Training was undertaken at the BDF-AW's Thebephatshwa Air Base, where NC ANG members provided in-depth, hands-on instruction for about 30 BDF personnel.

The BDF connection with the US unit goes back some time, as two of the BDF-AW's three C-130Bs were acquired from the NC ANG through the state partnership programme.

Over the week-long exercise, personnel from the NC ANG's 156th Aeromedical Evacuation Squadron imparted their knowledge to BDF personnel, who learnt very quickly.

However, before they can fully implement this capability into BDF-AW operations, they must first obtain funding for the necessary equipment to install in the Hercules. It is unclear if this has been forthcoming.

Medlite 12 was a joint Botswana-US exercise intended to establish and develop military interoperability, regional partnerships, synchronisation of effort and capacity building but no further manoeuvres are believed to have taken place, although USAF C-17s are regularly seen at Gaborone's Sir Seretse Khama International Airport.



The AW has two CASA 235s.

40 million Swiss francs (\$43.35 million) was signed on April 13, 2011 that led the BDF-AW being catapulted into the modern era. They were delivered in two batches between October 3 and November 14, 2012; officially being accepted into BDF-AW service (with Z7 Squadron at Thebephatshwa) in February 2013. They replaced the five surviving PC-7s, acquired in 1990.

Anti-poaching is one of the BDF-AW's key roles. The US donated 10 ex-US Army O-2As in 1993 as part of a bid to protect the rhinoceros in Botswana's Khama Rhino Sanctuary – a reserve where, according to President Khama, in early 2014 "not one animal has been poached since its creation 25 years ago".

This is a far cry from South Africa's rising rhino killings, which was put at 668 in 2012.

Protecting the rhino has seen the BDF-AW also take on several ultra light microlights (ULMs), such as the CFM Streak Shadow and 890U Mai – both being built under licence in South Africa.

It's the helicopters, though, that are the main weapon used against any would-be poachers, and provide regular surveillance of the wildlife parks.

The BDF-AW's helicopter fleet is made up of five AS350B3 Ecureuils, delivered in January 2004, which fly with Z23 Squadron, and three AS350Ba Ecureuils,

SOMMAIRE

Consolider ses capacités de défense

Tout porte à croire que le Botswana a besoin d'une armée de l'air active et puissante. Comme nous l'explique Alan Warnes, le soutien du président reste indéfectible.

Le Botswana est un État africain atypique car il ne fait pas souvent les titres de l'actualité pour de mauvaises raisons. Depuis son indépendance en 1966, le pays n'a pas connu de grands bouleversements, comme cela a été le cas pour de nombreux autres pays de la région. Le Botswana a des frontières avec l'Angola, la Namibie, l'Afrique du Sud, la Zambie et le Zimbabwe.

Un rapport de l'université du Botswana publié en septembre 2013, montre que l'armée du Zimbabwe projetait d'attaquer son voisin occidental lors la crise politique de 2008-2009. Le Botswana s'était alors tourné vers les États-Unis pour se munir de missiles antichars, d'avions F-5 et d'hélicoptères de combat et pour sa défense aérienne. Mais les États-Unis n'ont pas voulu mettre en péril leurs relations dans la région.

Cette instabilité régionale a engendré la création de l'escadre aérienne de la Force de défense du Botswana (BDF-AW) qui travaille en étroite collaboration avec les forces spéciales et le département pour la protection de la faune. Ian Khama, président du Botswana et ancien lieutenant-général de la BDF-AW a entamé son second mandat de cinq ans en octobre dernier. Ceci devrait être bénéfique pour la BDF-AW.

Sa principale responsabilité demeure la protection de l'espace aérien et des frontières du Botswana. Pour cela, elle a acquis 10 BF-5A Freedom Fighter et trois 5 BF-5D Freedom Fighter de Northrop via les forces aériennes canadiennes en 1997. Deux autres exemplaires ont ensuite complété la flotte. Ces avions ont cependant souffert d'un mauvais taux de disponibilité au cours des dernières années, faute d'un manque d'entretien et de pièces de rechange pour leurs sièges éjectables Mk 16.



Le gouvernement cherche cependant à renouveler la flotte. Il existe à ce jour trois options : les anciens F-5 suisses fournis par RUAG, l'achat de douze avions FA-50 coréens KAI ou une variante de l'avion de chasse T-50 ou l'avion multi-rôle Gripen. Cette dernière option a récemment conduit la société suédoise Saab à ouvrir un bureau à Gaborone.

Le besoin est donc là, l'urgence également, reste à voir si le Botswana dispose d'un budget pour réaliser de telles acquisitions. Néanmoins, la modernisation se poursuit au sein de la BDF-AW et concerne particulièrement la formation des pilotes. Un contrat

pour acheter cinq avions d'entraînement PC-7 de Pilatus et un simulateur a été signé en avril 2011.

La lutte contre le braconnage est également l'un des rôles clés de la BDF-AW. Les États-Unis ont fait don de 10 Cessna O-2 Skymaster en 1993 au pays dans le cadre d'une offre publique pour protéger les rhinocéros du Botswana. Ce sont cependant les hélicoptères qui sont la principale arme utilisée contre les braconniers. Ils fournissent une surveillance régulière des parcs animaliers. La flotte d'hélicoptères de la BDF-AW est composée de cinq Ecureuils AS350B3 et de trois Ecureuils AS350BA. Deux Bell 412EPs VIP et cinq Bell 412SPs ont ensuite rejoint la flotte. La BDF-AW a cependant perdu deux Ecureuils en opération.

Enfin, la BDF-AW dispose d'une capacité de transport aérien grâce à l'escadron de transport tactique Z10 situé sur la base aérienne de Thebephatshwa. Celle-ci intègre deux CASA 212-300, deux CN235M-300 et trois C-130B Hercules. La force aérienne du Botswana comprend également un Beech King Air 200, un Bell 412EP, un Dornier 328, un Global Express XRS et deux Pilatus PC-12 achetés sur le marché des avions civils. Ils sont opérationnels depuis 2012.

which were acquired in 1995 and fly with Z21 Squadron.

The latter fly with two VIP-configured Bell 412EPs, purchased in 2002 and 2005, and five earlier-build Bell 412SPs, which joined the fleet from 1988 onwards. Two of the latter were overhauled in Johannesburg, South Africa during mid-2008.

An Ecureuil was lost on June 27 last year during a flying training accident at Thebephatshwa, seriously injuring the instructor and trainee. The helicopter was a write off. Previous to that, an AS350 crashed on April 22, 2006 with both pilots on board killed.

Elsewhere in the inventory are two surviving BN-2A-21 Defenders (of seven delivered between 1977-1981) and six BN-2B-20 Islanders, acquired between 1990-98. They are believed to be used for twin-engine training, surveillance and liaison, and based with Z1 at Thebephatshwa and Z12 at Francistown Airport, located about 280 miles (450km) north east of Gaborone.

Providing the airlift capability is the BDF-AW's sole tactical transport squadron, Z10 at Thebephatshwa. It has

on strength two CASA 212-300 Aviocars, acquired in 1993, two CN235M-300s, delivered brand new from Airbus Military in late 2009, and three C-130B Hercules, received from ex-USAF stocks in 1996, 1997 and 2000.

Serviceability issues have rendered only one of the C-130Bs airworthy in recent months.

The two new CN235s replaced a pair of CN235M-10s that were in service from 1987-2009 and sold to a US-based commercial dealer by February 2011. After being ferried to Lanseria in South Africa, where they were placed into storage with Paramount Group, one was sold to the Togolese Air Force in July 2012 (in a deal which later fell through) and the other to the Congolese Air Force in March 2013.

As is quite common with African nations, the VVIP/VIP Squadron, based at Sir Seretse Khama International Airport in Gaborone, has quite a large fleet. There is a Beech King Air 200, Bell 412EP, Dornier 328, Global Express XRS and two Pilatus PC-12/47Es that were bought from the civilian market and have been operational since 2012.

Tragedy puts a brake on police support unit

The Botswana Police acquired three AS350B3 Ecureuils in 2009 for its newly formed Air Support Unit. Equipped with forward-looking infrared (FLIR), Spectrolab SX-16 night sun, rescue hoist, cargo swing and external loud speakers, the helicopters have become an integral part of the police force's crime-fighting operations.

Eurocopter South Africa provided the type rating for six pilots and the training of three mechanics.

All three Ecureuils were upgraded with a night vision goggle capability by September 2012, when they had already logged more than 4,000 flight hours. The young air unit was accident free until April 18 last year when one of the helicopters crashed, claiming the lives of all three officers on board. One of the dead pilots, superintendent Keokeditse Sobatha from Molepolole, was one of the first two women to join the Botswana Police Air Support Unit.

The accident led to a downturn in aerial surveillance according to the unit's director, Arthur Johnson, because air patrol operations had to be slashed by half, operating with one aircraft in the north and one in Gaborone and surrounding areas.

He admitted that, before the crash, the Air Support Unit was looking to increase its number of helicopters and had even issued a tender. However, the priority was now to raise funds to replace the aircraft that was lost.

"Before the accident, we had two helicopters based here in Gaborone. One was dedicated to Gaborone, while the other one was assisting in areas like Lobatse, Kang and Gantsi. But now we are trying to make ends meet with just one in all these areas," Johnson said.

Two officers have recently been trained as helicopter pilots in South Africa to replace the two killed in April, which will help to alleviate the pressure on the nine currently trained.



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Regional aircraft make sense especially when starting new routes or increasing frequencies: clockwise from top left: Sukhoi Superjet SSSJ100, ATR 42, Bombardier Q400 and CRJ.

AFRICA: LANDINGS OF

Vincent Chappard *has been talking to major regional jet (RJ) and turboprop manufacturers about the promise their aircraft offer Africa for developing viable routes.*

Franco-Italian company ATR is a world leader in the regional aircraft market and has already sold more than 1,300 aircraft. It has about 90 aircraft in service in 21 African countries.

According to John Moore, ATR sales director, the company has more than 40% of the regional aircraft market and is determined to consolidate its position in Africa.

Real opportunities exist, particularly in west Africa, he said. There is also a strong market growth potential in eastern and northern regions, while the market in southern Africa remains stable.

Patrick Castelbajac, ATR's new CEO, recently told French newspaper *La Tribune* that the manufacturer must seize business opportunities within the African continent. "There will not be a quick return on investment but we will invest in Africa. I am confident that we can play a very important role in the development of the continent."

Moore believes that ATR is the ideal regional aircraft to operate on routes of less than 300 nautical miles. Two versions (the ATR 42 and ATR 72) are available. They are powered by two Pratt & Whitney Canada PW120 turboprops.

Flexible and robust, they can operate on a short field and use up to 50% less fuel than equivalent jets. This can significantly reduce the cost per seat, allowing for the development of frequencies and traffic on regional routes.

ATR has a strong order book of 280 aircraft and

has significantly increased its production. The manufacturer produced 50 in 2013, 83 in 2014 and plans to deliver 115 this year.

Moore said ATR plans to develop its capacities in Africa in the next two years. It has opened a training school in Johannesburg in collaboration with Comair, and plans to open a maintenance base too.

Meanwhile, Bombardier has strong links with Africa and is committed to participating fully in the growth of air traffic. It has in its portfolio the Q400 turboprop and CRJ regional jet family.



"These aircraft have made significant advances in Africa, where about 160 (including 50 Q400/Q400 NextGen) are in service or on order with 40 customers and operators," said John Kassis, regional vice president of sales, Middle East and Africa.

"The CRJ and Q400 offer very competitive costs for air routes requiring three-hour flight," he added.

The growth and dynamism of the market allowed Bombardier to win more than 80% market share in Africa in terms of new orders. It boasts new African operators, including Starbow in Ghana, Air Côte d'Ivoire and Senegal Airlines, via a lease of aircraft with Falcon Aviation Services.

The manufacturer now relies on the

complementary aspects of CRJ (70-120 passengers) and Q400 (20-49 passengers) for further growth.

According to Kassis, Bombardier is the only manufacturer that can offer complete solutions with a wide range of regional aircraft for each segment of the regional air transport market (domestic and regional routes). RwandAir and South African Airways are two examples. Both operate the CRJ-200 for the regional market and Q400 for the domestic market. Bombardier also says that it is in discussion with several African states to develop their domestic networks.

Bombardier is also investing in Africa. It has an effective support network for its commercial aircraft customers, including offices and storage capacities for spare parts in Johannesburg, as well as authorised service facilities in South Africa and Ethiopia. In addition, it has factories located in Morocco producing simple structures, including flight controls, for the CRJ. A new permanent plant will be launched there in September 2015. Bombardier has invested \$200 million in this project.

Bombardier says that it is definitely going to introduce its new CSeries jet in Africa as it will offer better operating costs, including a 20% reduction in fuel consumption and a fourfold noise reduction compared to its competitors (single-aisle Airbus and Boeing aircraft currently in service). "The CSeries aircraft is a 100-seat that has the performance of a narrow-body aircraft," said Kassis.

Africa is seen as a land of opportunities for Embraer, according to Mathieu Duquesnoy, the Brazilian company's managing director Europe, Middle-East & Africa.

Embraer currently has 83 commercial jets in



Kenya Airways has already been enjoying the efficiency of Embraer's regional jets (E-190 pictured).

OPPORTUNITY

service on the African continent including 43 ERJ aircraft flown by 15 airlines, and 40 E-Jets (E170 and E190) operated by six airlines. Kenya Airways has a large fleet of E-Jets (three E170s and 15 E190s), while EgyptAir Express has 12 E170s.

New operators recently added E-Jets to their fleets, including Air Burkina (an EJ-170), Royal Air Maroc (three E170s).

"The continent is growing fast and our two families of aircraft are ideally suited for the development of the aviation sector in the region," said Duquesnoy.

The African market is particularly adapted for fleet solutions from 30 to 120 seats and Embraer portrays itself as a leader in this field. It currently has 65 E-Jet operators worldwide and is expected to reach 100 by 2018.

At the end of 2014, Embraer had 149 orders for airliners and 92 deliveries, while its business aircraft registered 116 deliveries.

Embraer has also developed support solutions for African operators. For several years the manufacturer has established a network of MRO and training centres based in Africa and dedicated to Africa. This network includes a plant for the E-Jets in Cairo in partnership with EgyptAir and a flight simulator for the ERJ family and a parts centre, both based in Johannesburg.

Embraer is also working closely with Kenya Airways to develop a centre of excellence in Kenya (simulator and MRO shop).

The Sukhoi SuperJet 100 (SSJ100) made its first commercial flight on April 21 2011. It was developed in partnership with Italy's Finmeccanica-Alenia Aermacchi. The SSJ100 has a 296 aircraft order book (and more than 120 options). To date 54

Superjet 100s have entered service with nine operators (none yet in Africa).

However, international marketing arm SuperJet International (SJI) is working intensively on the African continent, according to its spokesman, who said negotiations are under way with several potential customers and airlines. The partners are also quite confident about the signing of an important agreement with a large African airline in the near future.



According to SJI, the SSJ100 is the best 100-seat regional jet for the market and represents the latest generation of regional aircraft, with the latest technology. "It is perfectly suited to the African market and fully in line with passenger demand. The SSJ 100 now offers a lower operating cost by 10% per trip compared to its competitors and 32% on a short single-aisle aircraft and medium-haul," said SJI.

SuperJet intends to develop the support of SSJ100 operations. The SuperCare programme is designed to maximise aircraft availability and optimise the cost of ownership. It relies on the network of its shareholders and partners as PowerJet, the engine of the SSJ100, a partnership between Snecma and NPO Saturn.

SuperJet International is trying to spawn a major role in the regional jet market, particularly in Africa. The context is quite difficult, though, due to the geopolitical situation in Russia and the ambiguous position of the Finmeccanica CEO, who has referred its eventual withdrawal from the SSJ100 programme in the media.

SOMMAIRE

L'Afrique au cœur des stratégies régionales

La croissance économique, le boom démographique, l'urbanisation croissante et l'émergence d'une classe moyenne sont des facteurs qui contribuent au potentiel extraordinaire de l'Afrique et à l'expansion du trafic aérien régional sur le continent. Vincent Chappard a sondé les principaux avionneurs régionaux sur ces nouvelles données.

ATR est aujourd'hui un des leaders mondiaux sur le marché des avions régionaux.

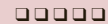
Sur le marché africain, ATR compte environ 90 avions en service dans 21 pays. Selon John Moore, l'ATR est l'avion régional idéal pour opérer sur des routes inférieures à 300 milles Nautiques et il permet de réduire jusqu'à 50% la consommation de carburant par rapport à un avion régional équipé de turboréacteurs. ATR compte développer ses capacités en Afrique dans les deux prochaines années et en particulier un shop MRO.

De son côté, Bombardier a tissé de solides liens avec l'Afrique.

« Les Q400 et CRJ ont réalisé d'importantes percées en Afrique où environ 160 avions sont en service ou en commande auprès d'une quarantaine de clients et d'opérateurs », déclare John Kassis, vice-président régional des Ventes, Moyen-Orient et Afrique de Bombardier.

Selon lui, Bombardier est le seul avionneur pouvant offrir des solutions complètes et adaptées pour chaque segment du marché (routes domestiques et régionales).

L'avionneur investit également en Afrique. Il dispose d'un réseau de soutien efficace pour ses clients. L'avionneur compte aussi y introduire le CSeries.



Embraer compte aujourd'hui 83 jets commerciaux en service sur le continent africain dont 43 avions ERJ et 40 E-Jets (E170 et E190).

Selon Mathieu Duquesnoy, directeur Europe, Middle-East & Africa d'Embraer, ces deux familles d'avions sont parfaitement adaptées au développement du secteur aérien. Embraer a également développé des solutions de soutien pour les opérateurs africains ainsi qu'un réseau de MRO et de formation basé sur place et dédié à l'Afrique.

Pour sa part, le SJ100 a un carnet de commande de 296 avions (plus 120 options). 54 SSJ100 sont à ce jour en service.

SuperJet International travaille de façon intensive sur le continent africain. Selon son porte-parole, le SSJ100 serait « le meilleur avion régional de 100 places sur le marché » et demeure l'avion régional de nouvelle génération offrant les solutions de dernière technologie.

Following a protracted development period, China's first attempt at a regional jet is finally due to enter service in the next few months. As Alan Dron reports, with one African order already under its belt, the manufacturer will be seeking commercial success on the continent.

Is this the start of China's wing dynasty?

A modest order for three aircraft from the Republic of Congo may not seem the strongest endorsement of a product whose international sales efforts are likely to be focused on developing nations.

But African passengers will be some of the early users of the latest product from the Commercial Aircraft Corporation of China (COMAC).

COMAC says that the Advanced Regional Jet for the 21st Century (ARJ21) will bring mainline jet standards of comfort and operating characteristics to regional services. Its critics say that it is outdated before it even enters service.

In many ways, the ARJ21 can be regarded as a pathfinder for what is to follow. Its much-delayed service entry is the result of China's state-run aircraft industry feeling its way not only in new production techniques but also through the complexities of certificating a modern airliner.

The ARJ21 is also the first commercial jetliner to be certificated by the Civil Aviation Administration of China. This lengthened the process, which was finally completed in late December last year.



The ARJ21 is a 78 to 90-seat regional jetliner (depending on whether it comes with a two-class or all-economy cabin) that is likely to rely on highly advantageous purchase terms, rather than operating economics, to win sales.

By the start of 2015 it had racked up 278 orders, almost exclusively from Chinese airlines, which are expected by the country's government to patriotically opt for the aircraft in preference to western regional jet competitors.

Those few non-Chinese carriers that have so far bought the type have been in nations that have previously shown themselves willing to operate Chinese civil equipment – usually acquired with generous loans from Chinese banks.

Chinese civil airliners already operate in several African nations. The MA60 turboprop, a much-modified and modernised design whose ancestry can be traced back to the 1960s-era Antonov An-

ARJ-21 specifications

Engines: two GE CF34-10A turbofans
Maximum range: (baseline ARJ21-700 model) 1200nm/2225km (proposed extended-range ARJ21-900) 2000nm/3700km.
Seating: 78 (two-class) to 90 (all-economy)
Maximum take-off weight: 40,500kg
Maximum operating altitude: 11,900 metres
Economic design life: 60000 flight hours/20 years
Other variants: ARJ21F freighter (five LD7 containers, maximum payload capacity 10.15 tonnes); ARJ21B business jet, typically accommodating 20 passengers. A shortened version of the baseline -700 model has also been discussed.

24, serves or is on order with airlines in Burundi, Cameroon, Democratic Republic of the Congo, Eritrea, Republic of the Congo and Zimbabwe. Those nations will be high on the list of countries that can expect visits from COMAC sales representatives touting the ARJ21.

When the prototype ARJ21 was rolled out in December 2007, one western observer was overheard muttering: "Well done. You've just invented the DC-9."

Leaving aside the sarcasm, the aircraft's physical resemblance to the McDonnell Douglas design is understandable. The aircraft was built at the same factory that had produced small numbers of the US company's MD-82, the updated version of the DC-9, in the 1980s and 90s. It would have been perverse for COMAC to have passed up the experience it had won in licence-building the US aircraft.

According to Reuters, COMAC has said that the ARJ21's fuselage cross-section, which is unusually wide for its seating capacity, was chosen for enhanced passenger comfort, but that a clear link can be seen from its MD-82 ancestry.

Many western observers have dismissed the aircraft as a revamped MD-82 with new engines, avionics and aerodynamic 'tweaks' such as winglets. Richard Aboulafia, lead analyst with the US-based Teal Group, has repeatedly described it as overweight

and badly outdated, even with its newer-generation powerplants, and believes it stands no chance of winning sales if compared to modern products from Bombardier, Embraer and Mitsubishi.

Several commentators have pointed out that it will be entering service with its GE CF34-10A turbofans just as other manufacturers, such as Embraer, are phasing them out in favour of new-generation powerplants.

A series of design changes have repeatedly pushed back the in-service date for the ARJ21. Development delays, of course, are hardly unique to COMAC – taking a moment to recall the delays in getting the Boeing 787 into revenue service is a reminder of the complexity involved in the design and production of a modern airliner.

Even taking that into account, however, the ARJ21's development process can only be described as lengthy.



The project got under way in 2002, with first deliveries due in 2006. In fact, first flight did not take place until 2008 and the timetable for production models to finally roll off the assembly line in Shanghai has slipped steadily to the right. Among problems to have emerged during static testing was the 2010 failure of a wing during a load test.

Now, finally, it appears that the first production examples will be delivered to the launch customer – China's Chengdu Airlines – in April or May. At the time of writing, the only western purchaser of the type is lessor GECAS, which has ordered five, with a further 20 options.

The reluctance of carriers outside China to buy the new aircraft suggests that the country's banks will resort to offering generous financial terms – likely to include low interest, long repayment periods and initial 'grace periods' of several years – to attract customers.

This is likely to be particularly so in Asia and Africa, where carriers with limited financial resources may get the opportunity to acquire new, rather than second-hand aircraft for the first time.

COMAC says that the Advanced Regional Jet for the 21st Century (ARJ21) will bring mainline jet standards of comfort and operating characteristics to regional services.



In December last year, a delegation of more than 40 African envoys visited COMAC's facilities in China for briefings on both the ARJ21 and the next civil jet due to come off the final assembly lines, the 160-seat C919. The event was notable for the director-general of the Chinese foreign ministry's Department of African Affairs, Lin Songtian, commenting that his department would be actively supporting COMAC in what he described as the expanding African market.

It is the C919, rather than the ARJ21, for which China harbours real hopes. This Airbus A320-class aircraft, due to enter service in 2018-19, will be a much more modern design than its predecessor.



While likely still to be behind the curve, it will be much closer in performance and economics to western products – probably close enough to make its reasonable capabilities, combined with competitive purchase process, attractive to a greater number of airlines. It has already won around 450 orders, although they are again heavily biased towards Chinese carriers and lessors.

It will also benefit from the lessons learned from the difficult development and certification process endured by the ARJ21.

China's huge economic interests in Africa, and its willingness to pump funds into the continent to further its economic and political ends, mean that the three ARJ21s bought by Congo's Transport Ministry (two airliners and a business jet version) are unlikely to be the last to appear at the continent's airports. But how many more carriers will be tempted by the new design remains to be seen.

SOMMAIRE

L'ARJ21 arrive en Afrique

La commande de trois ARJ21 par la République du Congo ne constitue toutefois pas une véritable percée pour un avion destiné à un marché international. Quoi qu'il en soit, les Africains seront parmi les premiers passagers du nouvel avion régional de COMAC.

Selon l'avionneur chinois, l'ARJ21 (Advanced Regional Jet of the 21st century) apportera un nouveau standard à l'aviation régionale. Ses détracteurs prétendent qu'il sera obsolète avant même d'entrer en opération et qu'il n'est qu'une réinvention du DC-9.

L'ARJ21 peut être considéré à bien des égards comme un précurseur. Malgré de multiples retards pour sa mise en service, l'industrie chinoise a trouvé de nouvelles techniques de production et résolu les complexités de certifier un avion de ligne moderne. L'ARJ21 est en effet le premier avion commercial à être certifié par l'aviation civile chinoise. Ce processus a pris fin en décembre 2014.

L'ARJ21 est un avion de ligne régional de 78 à 90 places. Eu début d'année, il cumulait 278 commandes essentiellement auprès de compagnies aériennes chinoises. Les autres transporteurs en dehors de la Chine ont acquis cet avion grâce à de généreux prêts des banques chinoises.

Selon des observateurs, l'ARJ21 entrera en service avec les CF34-10A de GE alors que d'autres avionneurs tels que Embraer vont opter pour une motorisation de nouvelle génération. Il y a eu certes de nombreux retards de développement mais ce n'est pas uniquement l'apanage de COMAC. Rappelons que la mise en service du Boeing 787 avait accusé d'importants retards, ce qui montre la complexité de concevoir et de produire un avion commercial moderne.

Le projet ARJ21 a débuté en 2002 avec les premières

livraisons prévues en 2006. A ce jour, il semblerait que les premiers exemplaires seront livrés au client de lancement, Chengdu Airlines, en avril ou mai 2015.

On note cependant la réticence des compagnies en dehors de la Chine à acheter ce nouvel avion régional, ce qui pousse les banques à offrir des conditions financières très généreuses pour attirer les clients. C'est particulièrement le cas en Asie et en Afrique, où les transporteurs ont des budgets limités pour l'acquisition d'avions neufs.

En décembre 2014, une délégation de plus de 40 représentants africains a visité les installations de COMAC en Chine pour jauger les performances de l'ARJ21 mais surtout de celles du C919. Le directeur général des Affaires africaines au ministère chinois des Affaires étrangères, Lin Songtian, a indiqué lors de cet événement qu'il soutiendrait activement COMAC pour s'implanter sur le marché africain en pleine expansion.

C'est davantage pour le C919 que la Chine voit un réel espoir. Cet avion doit entrer en service à l'horizon 2018-2019. Il aura un design plus moderne et plus proche de la performance des avions occidentaux. Le C919 a déjà un carnet de commande de 450 avions provenant essentiellement de transporteurs et de bailleurs de fonds chinois. Il profitera des leçons du périlleux processus de développement et de certification qu'a connu l'ARJ21.

Les intérêts économiques de la Chine en Afrique et sa volonté d'investir sur le continent pour atteindre ses objectifs économiques et politiques signifieraient que l'achat des trois ARJ21 achetés par le ministère des transports congolais n'est qu'un début. Reste à savoir combien d'autres transporteurs africains seront tentés par ce nouvel avion régional.

Proflight has found that small turboprops such as the Jetstream 41 are perfect for thin regional routes.



Quiet contentment as Proflight outlasts its rivals

Proflight Zambia is keen to ensure Zambians have a chance of becoming commercial pilots to fly to its growing network of destinations.

Ian Sheppard reports.

Proflight is not an upstart, high-risk airline venture. Quite the opposite in fact, as it has been operating for more than 20 years and is now Zambia's main home-grown carrier.

The original national carrier, Zambia Airways, folded in 1995 and Proflight, which started operations at that time, has since outlived six other Zambia-based airlines (including Zambia Airways, a new national carrier which stopped operating in 2009).

Proflight's quiet contentment is the first thing that strikes you on visiting its smart but understated new corporate headquarters in Zambian capital Lusaka.

CEO Tony Irwin, who *African Aerospace* interviewed last May, was keen to stress that Proflight is growing carefully, steadily, and is not about to go head-to-head with low-cost carriers that are starting to fill the routes of southern and eastern Africa. Rather, it is focused on working with opening up Zambian destinations to all.

The company signed an interline agreement with South African Airways in February, as Irwin sees codesharing as a good way to build traffic into and out of its network, with it specialising in Zambian domestic routes using small turboprop aircraft.

It has similar arrangements with Ethiopian (whose Boeing 787s fly in from Addis Ababa before heading for Harare), Kenyan Airways, Tanzania's Precision Air and FastJet, which provides the link with Dar es Salaam.

It also leased a Bombardier CRJ from CemAir to help it start international routes, such as Harare and Lubumbashi, after it obtained approval to fly internationally last year.

On the safety front, Proflight was recognised in December for good practice when it was awarded silver status under the basic aviation risk standard (BARS). This involved safety audits over a period of four years by the Flight Safety Foundation.



Kalenga plots the way forward for young pilots

Kalenga Kamwendo, 20, is being heralded by employer Proflight Zambia as the country's youngest commercial pilot.

He is now a major part of the airline's drive to encourage more young Zambians to consider flying as a career.

The youngster joined the airline's team of 35 pilots in August last year and has since been flying to towns around Zambia, including Ndola, Solwezi and Mfuwe, as well as Chipata, Mansa and Lilongwe in Malawi.

He completed his commercial pilot's licence at 43 Air School in South Africa before training to fly the Cessna Caravan. Now, he has more than 500 hours in his logbook.

Captain Vivian Sikazwe, at 64 Proflight's oldest pilot, said that the airline receives more than 300 CVs each month from wannabe pilots. With Kalenga, "attendance at a good quality flight school" along with having the required number of flying hours "tipped the balance in his favour", along with the fact that Proflight actively seeks to recruit Zambian nationals to its team.

Lead MRO in Africa

Facilities and capabilities

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

The centre awarded several internal and external approvals:

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

Maintains the following type of aircraft up to C check:

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

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

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

Also the centre provides

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





There is greater emphasis on airport expansion, such as Lusaka Kenneth Kaunda International in Zambia.

Scarce government resources have led most sub-Saharan countries to shy away from major airport development projects. But, with the need to modernise airports at its most critical, the focus is firmly on the financing options available. Keith Mwanalushi reports.

Time to cash in on private finance

«Le temps du financement privé» – Page 104

Many parts of Africa are making headway in terms of airport infrastructure work. From Mozambique to Uganda, Zambia to Kenya, there seems to be some action on the ground.

Change and development often works at a sluggish pace in Africa but slow progress is better than no progress at all.

Airports are vitally necessary to attract business and tourism. And, finally, it seems as though that message is getting through.

Uganda, for example, has unveiled a two-decade aviation masterplan, the implementation of which involves the construction of four new airports and an expenditure of \$400 million.

On the Zambian Copperbelt, there are plans for a \$520 million Simon Mwansa Kapwepwe International Airport in Ndola to house a number of facilities.

However, with most airports in Africa, there is the risk of operational cost rising higher than revenue, so financing tends to be a problem.

Manny Kanabe, managing director at Accra and London-based iGeneration Consulting, said some sub-Saharan African states were making progress towards private public partnership (PPP) for airport development, rather than public financing solutions.

“A notable example is Ghana, which has attempted a number of PPP transactions to improve major facilities, such as Kotoka International Airport in Accra and Tamale Airport, where a US\$100 million contract was signed,” he said.

“The construction of the airports at Princess Town and Ankaful was also with the assistance of private funding. There are also meant to be on-going discussions with Chinese interests to construct a new airport at Accra Dangme West District.”



Simon Mwansa Kapwepwe:
Chinese financing is not the only option.

Kanabe is positive that PPPs present a great opportunity for airport infrastructure developments in Africa. “With the right conditions for investors, PPP could be the way forward,” he said. “The key is finding the optimum balance between public and private funds.”

One big issue, however, is the weakness of legal provision in sub-Saharan Africa, especially involving airport concessions.

A poor regulatory and legal structure could have an impact on the entrance of private partnerships.

“Without a shadow of doubt this affects things,” Kanabe pointed out, adding that, in order to attract

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the right private partnerships, African governments would need to ensure there was a clear legal framework and structure that provided adequate protection for private partners and investors.

“There are a number of other areas where the existing laws of a host country may need to be modified to allow for successful infrastructure PPP projects, such as enabling the grant of step-in rights to lenders and requiring open and fair procurement processes,” Kanabe continued.

He said these modifications could be embodied in sector-specific law, or in a procurement or competition law, or in a general concession or PPP law.

Kanabe stipulated that each law needed careful wording to be consistent with the host country’s existing arrangements. “Legal draftsmen need to strike a balance between setting ground rules that encourage transparency and imposing general restrictions that may hinder bidding teams from achieving value for money or sensible solutions when seeking out PPP projects.”

Existing airports in Africa generally suffer from a lack of investment, especially smaller

regional airports that have low traffic volumes but high operational costs.

“To increase revenue generation for small regional airports, airports authorities must work with their respective governments to explore different approaches,” said Kanabe. “For example, tourism developments to the area will attract additional traffic.

“The airport authorities could also provide facilities for cargo operations, handling and private jet operations, all of which are aviation growth sectors in sub-Saharan Africa.”



It still remains the case, broadly speaking, that disadvantages outweigh the benefits for most people investing in African airport infrastructure. “The governments in sub-Saharan Africa should also be prepared to offer incentives, such as tax breaks, to attract more investors and compete for infrastructure development funds with other emerging markets.”

Kanabe also believes there should be a structured approach to dealing with challenges restricting the development of aviation in sub-

Saharan Africa – for example, the failure of many countries to ratify the Yamoussoukro Decision (YD).

A recent study suggested that if the YD were to be implemented, increased air services between 12 sample markets across the continent – north, south, east and west – would provide an additional five million passengers per annum, US\$1.3 billion in annual GDP, and 155,000 jobs.

China is heavily involved in airport infrastructure financing in Africa. For instance, it is playing a part in the \$150 million upgrade of the Victoria Falls Airport and the proposed new Kariba Resort Airport project, both in Zimbabwe.

So could Chinese financing be the lifeline that African airports desperately need? Kanabe is not convinced.

“African governments should be looking more broadly to other sources of financing and not be overly reliant on the Chinese,” he said. “With the right conditions, Africa will attract a lot more investments from different parts of the world and, thereby, give countries better negotiating powers in foreign direct investment,” he concluded.

SOMMAIRE

Le temps du financement privé

Le manque de ressources financières a contraint la plupart des pays d'Afrique subsaharienne à renoncer à de grands projets de développement aéroportuaire. Toutefois, face à la nécessité de moderniser les aéroports les plus obsolètes, toutes les possibilités de financement sont à l'étude. Une enquête de Keith Mwanalushi.

De nombreuses régions africaines ont lancé des chantiers pour améliorer les infrastructures aéroportuaires. Des projets indispensables pour attirer les entreprises et le tourisme. Le Mozambique, l'Ouganda, la Zambie ou encore le Kenya sont des pays qui progressent. L'Ouganda a mis en œuvre un plan de 400 millions de dollars pour la construction de quatre nouveaux aéroports. En Zambie, c'est un investissement de 520 millions visant à mettre en place plusieurs infrastructures.

Il y a cependant un risque que le coût d'exploitation soit supérieur aux recettes dans la majorité des aéroports en Afrique. Le financement devient ainsi un problème.

Manny Kanabe, directeur général du cabinet de consultant iGeneration, a déclaré que « certains pays d'Afrique subsaharienne se dirigent désormais vers un partenariat public-privé (PPP) pour le développement des aéroports ». C'est le cas du Ghana pour les aéroports de Kotoka (Accra) et de Tamale.

Selon lui, le PPP représente une véritable opportunité pour le développement des infrastructures aéroportuaires en Afrique. La clé est de trouver un équilibre optimal entre fonds publics et privés. Le problème majeur réside cependant dans un manque de cadres juridiques dans cette région. L'absence de structures réglementaires et légales pourrait avoir un impact sur l'entrée de partenariats privés. Les gouvernements africains devraient s'assurer de la mise en place d'un cadre juridique clair qui offre une

protection adéquate aux partenaires privés et aux investisseurs. Ce sont des critères indispensables pour la réussite des projets PPP qui ont besoin d'un processus transparent dans l'attribution de marchés ouverts et équitables. Ces modifications pourraient être intégrées dans le droit spécifique d'un secteur ou dans une loi sur les marchés ou la concurrence, voire une loi générale sur le PPP.



Les aéroports existants en Afrique souffrent généralement d'un manque d'investissement en particulier les petits aéroports régionaux. Ils ont en effet des volumes de trafic faibles et des coûts d'exploitation élevés.

« Les autorités aéroportuaires doivent travailler avec leurs gouvernements respectifs pour augmenter leurs revenus. Il faut examiner différentes approches. Le développement du tourisme est un facteur important pour attirer un trafic supplémentaire », assure Manny Kanabe. « Les autorités aéroportuaires pourraient également fournir davantage d'infrastructures pour les opérations de fret, de manutention ou encore les opérations d'avions privés ». Ce sont en effet des leviers de croissance du transport aérien en Afrique subsaharienne.

On observe donc de manière générale qu'il y a encore beaucoup d'obstacles, d'inconvénients (et donc peu d'avantages) pour la majorité des personnes

qui investissent dans les infrastructures aéroportuaires africaines.

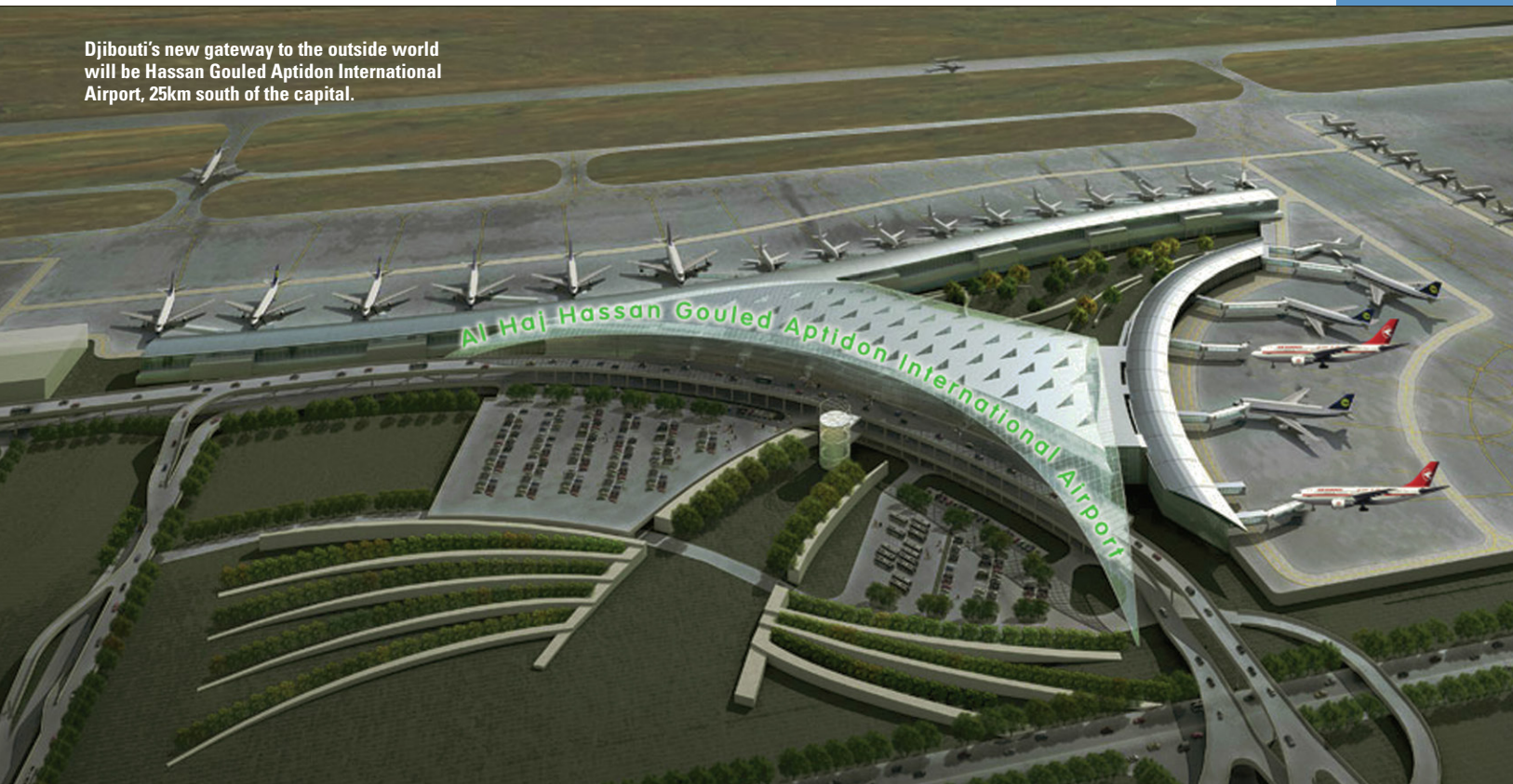
Selon Manny Kanabe, les gouvernements de la région devraient également être prêts à accorder davantage d'incitations, telles que des allègements fiscaux pour attirer plus d'investisseurs et lever plus de fonds pour le développement des infrastructures. Une approche structurée est essentielle pour relever les défis qui limitent le développement de l'aviation en Afrique subsaharienne.

Une étude récente montre que si la Décision de Yamoussoukro (YD) était mise en œuvre entre 12 marchés à travers le continent africain, cela générerait cinq millions de passagers supplémentaires par an, une augmentation de 1,3 milliard de dollars du PIB annuellement et la création de 155 000 emplois.

Rappelons que la Chine est fortement impliquée dans le financement des infrastructures aéroportuaires en Afrique. Elle joue un rôle dans la modernisation de l'aéroport de Victoria Falls et le nouveau projet Kariba Resort au Zimbabwe. Mais pour Manny Kanabe, les gouvernements africains devraient s'atteler à trouver de façon plus soutenue d'autres sources de financement et ne pas trop dépendre des investissements chinois.

Si les bonnes conditions sont réunies, l'Afrique pourra attirer beaucoup plus d'investissements provenant de différentes parties du monde et par conséquent, donner aux pays de meilleurs pouvoirs de négociation avec les investisseurs étrangers.

Djibouti's new gateway to the outside world will be Hassan Gouled Aptidon International Airport, 25km south of the capital.



Djibouti building airports at the double

«Deux nouveaux aéroports à Djibouti» – Page 106

Work has begun on not one, but two, airports in Djibouti, as the tiny northeast African state pursues its ambition to be the transport hub for the Horn of Africa and beyond.
Alan Dron reports.

With a population of just 800,000 and an international airport already in existence, Djibouti's decision to start construction work on two new airports initially seems extravagant.

However, the combination of a national plan to turn the strategically placed country into a transport infrastructure hub, combined with the enthusiasm of China to increase its already substantial foothold in Africa, makes the development much more understandable.

Construction of the airports will cost \$599 million. Together, they will cater for more than two million passengers and over 100,000 tonnes of air cargo. They will also create 2,000 jobs during the construction and operational phases.

The first, to be named Hassan Gouled Aptidon International Airport after Djibouti's first president, is being built in Ali-Sabieh, 25km south of the capital. It will be capable of catering for 1.5 million passengers and 100,000 tonnes

of cargo per year when it starts operations in 2018.

It will have a 3,600 metre runway and will be capable of handling all modern commercial aircraft, including the Airbus A380. An artist's impression of the airport shows a single terminal building with a large, curved glass facade landside and more than 20 jetways arranged along two piers.

The second, Ahmed Dini Ahmed International Airport, is named after the former prime minister and located in the undeveloped north of Djibouti near the town of Obock. It will be smaller, handling just over 750,000 passengers a year.

Containing more basic facilities than the main airport to the south, images of the planned terminal show aircraft at seven remote stands. Construction should be rapid, with the first flights expected to arrive next year.

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Like Hassan Gouled Aptidon, it is expected to have an unusually long 3,600metre runway to allow for the high local temperatures that affect aircraft take-off performance.

At present, the sole airport is Djibouti-Ambouli, close to the capital. It originated as an airbase for the former French colonial rulers and is currently a joint civil-military facility. France continues to base a small number of military aircraft there but, in recent years, the US has become the major military operator.

In future, “the existing airport will be used strictly for military activity”, said Djibouti Ports & Free Zones Authority business development manager, Jibril Ali Hussein. “Separating civil and military aviation activities is one reason for going ahead with the new airports,” he added.

The US military will also favour the move; its base there, Camp Lemonnier, is home to a range of intelligence, surveillance reconnaissance (ISR) aircraft such as the UC-28A – militarised versions of the Pilatus PC-12 single turboprop that operate in civilian-style colour schemes so that they do not attract attention when flying into African airports. The departure of civilian passengers to the new airport will allow both the French and US militaries to increase the veil of discretion around their operations.

Jibril Ali Hussein:
“We believe tourism is something that can employ the unskilled labour we have in Djibouti.”



SOMMAIRE

Deux nouveaux aéroports à Djibouti

Les travaux de construction de deux nouveaux aéroports ont démarré à Djibouti. Une enquête d'Alan Dron.

Avec une population de seulement 800 000 habitants, ce projet pourrait sembler extravagant. Toutefois, le plan national de capitaliser sur la position stratégique du pays couplé d'un fort investissement de la Chine, rendent ces projets de développement plus compréhensibles.

Au coût de 599 millions de dollars, les deux aéroports pourront accueillir plus de deux millions de passagers, traiter plus de 100 000 tonnes de fret aérien et créer 2 000 emplois.

Le premier aéroport sera à Ali Sabieh. Il commencera ses activités en 2018 et sera capable d'accueillir les avions commerciaux modernes dont l'Airbus A380. Le second aéroport sera situé près de la ville d'Obock. Son entrée en opération est prévue début 2016. Le financement est assuré par des emprunts auprès des banques d'État chinoises.

Le seul aéroport qui dessert le pays actuellement, Djibouti-Ambouli, sera uniquement dédié aux activités militaires à l'avenir. Djibouti est devenu une base militaire importante pour les États-Unis.

L'objectif est de faire de Djibouti un hub de transbordement, avec des marchandises qui arrivent par bateau pour être transférées par avion vers des destinations enclavées comme le Rwanda et l'Ouganda. De nombreux investissements portuaires sont également réalisés par Dubai Ports.

Pour Moussa Ahmed Hassan, ministre de l'équipement et des transports, « l'investissement dans les infrastructures de transport à Djibouti agira comme un catalyseur de la croissance économique et le développement ». Les aéroports y contribueront largement en générant un éventail de services annexes, créateurs d'emplois.

Djibouti has become an increasingly important base for the US over the past decade and, with around 2,000 personnel, is the largest single US military presence in Africa and the main operating base for US Africa Command (AFRICOM).

The Djibouti Government has good economic reasons for constructing two new airports. They will spread economic development further afield than Djibouti City. Airports generate a range of support services around them, which bring more employment.

Germany's Lufthansa Group created the masterplan for the two airports, with detailed design then being carried out by Chinese companies.



The China Civil Engineering Construction Corporation is providing financial support for the project, through loans from Chinese state banks. As is common with Beijing-funded projects, the loans will be low-interest and have a lengthy payback term.

Hassan Gouled Aptidon will be the main air gateway for Djibouti. Ahmed Dini Ahmed will be a considerably smaller, simpler facility largely dedicated to encouraging tourism in the north of the country.

Djibouti is becoming known for both eco-tourism and marine activities, such as diving. “We believe tourism is something that can employ the unskilled labour we have in Djibouti,” said Hussein.

However, cargo is likely to be a major part of the traffic that uses Hassan Gouled Aptidon. The intention is to make Djibouti a trans-shipment hub, with goods arriving by ship, then transferred onward by air to landlocked destinations such as Rwanda and Uganda.

“It's a very small country but it's a gateway to 400 million consumers and we want to be a trans-shipment hub,” said Hussein.

A MENA ECONOMY THAT'S ABOUT TO TAKE OFF

The appetite for creating two new airports in Djibouti can be partly explained by World Bank forecasts that the country's economy will grow by 6.5% in 2015, the highest rate for any nation in the Middle East and North Africa (MENA) region.

Investments of more than \$9 billion in the nation's transport and trade infrastructure are scheduled over the next three years – a remarkable sum when one considers that Djibouti's annual GDP in 2013 was estimated by the US Central Intelligence Agency (CIA) at just \$1.45 billion.

The CIA World Factbook notes that the arid country, wedged between Eritrea, Ethiopia and Somalia, “provides services as both a transit port for the region and an international trans-shipment and refuelling centre. Imports, exports, and re-exports – primarily of coffee from landlocked neighbour Ethiopia – represent 70% of port activity at Djibouti's container terminal. Djibouti has few natural resources and little industry.”

Among those resources, potash is sold to Ethiopia, while minerals and salt from Lake Assal, described as the world's largest undeveloped source of salt, are being developed for export.

The Djibouti Government has decided to turn this negative into a positive by capitalising on its existing transport facilities and boosting them further, to create a major trading hub.



The Djibouti Free Zone (DFZ), a tax-free enclave, has already reached capacity with almost 200 companies installed there.

To fulfil future demand, the new Khor Abamdo Free Zone, at 3,500 hectares 200 times the size of the DFZ, will include a deep-water port and have its own electricity generating and desalination plants.

Dubai Ports manages the existing port at Djibouti City and no fewer than four new ports are under

construction at a cost of \$5 billion. When operational, these will quadruple Djibouti's cargo-handling capacity to 80 million tonnes per year. Work on liquefied natural gas and crude oil terminals is about to start.

Incoming cargo will be moved by land to the new main airport at Ali-Sabieh, for loading on to freighters and onward carriage to countries across much of central Africa.

“The investment in transport infrastructure in Djibouti will act as a catalyst for economic growth and development,” said Minister for Equipment and Transport, Moussa Ahmed Hassan.

“The airports form part of the major transport infrastructure investment programme, enabling the country to build on its position as a key regional trade hub.”

It is against this background that January's laying of foundation stones by President Ismail Omar Guelleh for the country's two new airports should be seen.

Does cargo hold the key to Africa's potential?

Industry leaders converged on Johannesburg in February to discuss the opportunities and challenges for the continent's fast-growing cargo markets. Martin Rivers was there.

RK Patra, group editor-in-chief of the STAT TradeTimes, got this year's Air Cargo Africa conference off to a rousing start when he compared two recent and not-so-recent covers of The Economist magazine.

The first, published way back in May 2000, bore the headline 'The hopeless continent' and depicted a heavily armed Sierra Leonean militiaman against a silhouette of Africa.

The article inside, which can still be accessed online, bemoaned the continent's myriad "dreadful

wars" and the "shambles" of international efforts to impose peace and stability. Noting Africa's apparent susceptibility to "brutality, despotism and corruption", it concluded with the gloomiest of outlooks.

Fast forward 11 years, Patra continued, and the difference could not be starker: 'Africa rising' was The Economist's caption in December 2011, alongside a picture of a child flying a rainbow-coloured kite in the shape of the continent.

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Kulula Boeing 737 takes on cargo to supplement income from budget travellers.



CONTINUED FROM PAGE 107

Eye-catching headlines are easy to conjure up and effective at selling magazines, but has Africa really turned a corner? And, if so, what role will air cargo play in facilitating this new, brighter outlook?

Fitsum Abadi, managing director of Ethiopian Cargo Services, Africa's largest home-grown cargo operator, sees clear cause for optimism. His airline has more than quadrupled its freight tonne kilometres (a measure of traffic) over the past decade, suggesting that Addis Ababa, at least, is enjoying steady long-term growth.

Abadi highlighted the familiar arguments for bullishness during his address to delegates, noting that Africa accounts for 60% of the world's uncultivated arable land, nearly 20% of its crude oil exports, and the vast majority of its diamonds.



The continent's young and increasingly well-educated workforce further means that the logistical manpower and entrepreneurial skills needed to exploit these blessings are in abundance.

"But, while things are good, we have to think also about the challenges ahead," he cautioned.

"The intra-African market is still very low. So it's an opportunity for growth, but also a challenge.

"The lack of integrated multi-modal systems is also very important. We have a lot of African countries who have sea ports and huge movements of cargo, but there are no roads or there are no airports to link with the sea ports."



British Airways owner IAG is calling for better infrastructure at African airports.

Alongside other obstacles – political turmoil, high aviation charges and taxes, and stubbornly persistent trade barriers – poor infrastructure is the key impediment to growth.

"Given the scale to which perishables are a factor in African air cargo exports, the infrastructure is not there to match what I believe is needed," complained David Shepherd, head of commercial at IAG Cargo, the cargo division of International Airlines Group, the parent company of British Airways and Iberia.

Foreign airlines still account for up to 90% of passenger and cargo capacity in Africa, with flag-carriers from Europe and the Persian Gulf maintaining the strongest links.

While their domestic hubs in many cases set the 'gold standard' for cargo terminals and specialist facilities, the infrastructure on the African side of the supply chain remains woefully inadequate.



Shepherd noted that 50-60% of African freight transported by IAG Cargo to its London and Madrid hubs could be classified as perishables. Fish, vegetables and fruit are the most common freight type, while there are spikes in floriculture exports before holidays such as Valentine's Day.

All these goods require constant temperature control throughout the supply chain in order to reach their destination in saleable condition, especially given strict European safety standards for imported food.

Subsidiary British Airways, therefore, operates a Perishable Handling Centre at London Heathrow Airport, which is connected to two of the capital's other gateways – Gatwick and

Stansted – via a network of refrigerated vehicles.
 The 69,000sqft facility allows goods to be maintained in a controlled environment until ready for despatch to supermarket distribution centres.

But facilities and standards at African points of origin are all too often lacking. Shepherd said his airline mitigates this as much as possible by forging close ties with reputable partners such as Kuehne + Nagel.

“We work with forwarders to make sure that the temperatures we’re receiving the goods at – and managing within our care, and then handing over to the customer – are within the temperature range that they’re after,” he explained.

Regulatory endorsements help to reassure customers. In December, IAG Cargo became the first carrier in the world to secure good distribution practice (GDP) certification from a national government health agency. Although the accolade is primarily of relevance to its pharmaceutical handling facilities, the fact that the airline has governmental accreditation at more than 100 stations worldwide boosts its reputation among buyers of all temperature-sensitive goods.

Africa-domiciled cargo



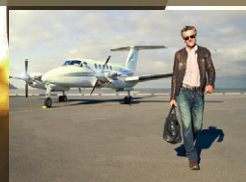
Kenya Airways Cargo was voted African Cargo Airline of the Year.

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AFRICA ASIA AUSTRALASIA EUROPE LATIN AMERICA MIDDLE EAST

Ethiopian takes cargo very seriously. Here a Boeing 757 is loaded up at Lusaka in Zambia.



CONTINUED FROM PAGE 109

carriers face an uphill struggle in attaining the same quality and assurance standards as their older, better-established rivals in Europe.

But competition in local markets is nonetheless, buoyant, with a handful of predominantly hub-and-spoke operators staking a claim in the continent's rising export market – valued at \$582 billion per year.

Nairobi's Jomo Kenyatta International Airport, one of the continent's largest hubs, has already given rise to both public and private sector success stories.

Flag-carrier Kenya Airways, for example, which is 29.8% owned by the Government of Kenya, walked away with the 'African Cargo Airline of the Year' award at the conference.



The airline utilises belly capacity in its 38-strong passenger fleet, plus main-deck capacity in two Boeing 737-300Fs.

It also operates a joint venture with Martinair, the wholly owned cargo subsidiary of KLM, deploying a 747-400F painted in the 'Safari Connection' livery.

Within the private sector, Nairobi-based Astral Aviation has grown steadily since its launch in 2001, deploying two McDonnell Douglas DC9-34Fs, one 727-200F and one Fokker 27-500F for both commercial and humanitarian freight movements.

Although it primarily focuses on the regional market – cherry-picking under-served destinations such as Juba in South Sudan, Pemba in Mozambique, and Mogadishu in Somalia – Astral also now competes head-to-head with British Airways by flying twice-weekly from Nairobi to London Stansted with a 747-400F wet-leased from Atlas Air.

Chief executive Sanjeev Gadhia said that

hub-and-spoke networks would continue to dominate the African air cargo market, with freight forwarders and cargo operators by necessity honing in on established centres such as Nairobi, Johannesburg and Cairo.

That reality underscores Abadi's concerns about unbalanced intra-African traffic, but Gadhia is nonetheless optimistic about the potential for the emerging markets.

"Accra [The Ghanaian capital] was used very successfully in 2014 as the hub during the Ebola crisis, creating a vital corridor for supplies and health personnel into the affected countries," he noted, turning his attention to the historically under-served west African market. "The Ivory Coast's Abidjan could be another potential hub."

Local start-ups are also catalysing growth at second-tier hubs. In February 2014, for example, South Africa's Khuphuka Kings Airways launched cargo flights from Durban with two Ilyushin Il-76s and one Antonov An-12.



Later this year, Nigeria's Africana Wings Aviation Services aims to take to the skies from Lagos with a pair of Casa CN-235s. The venture is headed by managing director Ken Hawkins, the former boss of the International Aviation College in Ilorin, Kwara State. It will compete directly with Astral, which also plans to base aircraft in Lagos this year.

But, with the continent's primary cargo hubs acting as a magnet for foreign operators, market leader Ethiopian Airlines has no intention of relinquishing its first-mover advantage.

The flag-carrier's Vision 2025 strategic plan envisages its eight-strong freighter fleet (four 777-200LRs, two 757-200Fs and two MD-11Fs) growing to 20 aircraft over the coming decade. Its aspirations have not been dented by

the destruction of a 737-400F, leased to Togolese subsidiary Asky, in January. Already uplifting 200,000 tonnes of cargo per year and serving 24 freighter destinations, Ethiopian is targeting volumes of 800,000 tonnes across 37 cargo points by 2025.

Though ambitious, Addis Ababa's plans merely reflect a desire to defend market share amid a rising tide of confidence in Africa. Operators based on the continent are expected to acquire more than 100 freighters by 2033, according to Tom Crabtree, regional director for market analysis at Boeing Commercial Airplanes.



"There is massive growth potential within African air trade," he insisted. "In fact, African air trade with Europe, Asia and North America is set to grow 4.3%, 6.6% and 5.2% respectively per year through to 2033."

With the arterial growth of trunk routes being fuelled by ever-more intricate intra-African capillaries, IHS Economics expects Africa to be the fastest expanding cargo region in the world over the same timeframe.

It should even surpass the Middle East, the consultancy believes, achieving sustained compound annual growth rates of 6.1% for nearly two decades.

"We firmly believe that African economies have a great potential to build on their demographic dynamism, rapid urbanisation and natural-resource assets," Patra concluded. "The challenge now for many of them is to ensure that greater insertion into global value chains is achieved."

However, he added: "Bear in mind that Africa is too big to follow one script, so its countries are taking different routes to becoming better places."

Conference set to change the view of aviation in Africa

Twenty years ago, Dubai International Airport was busy but hardly record-breaking – just about getting into the top 50 of world airports. Today it is the busiest international airport in the world with more than 70 million passengers using just two runways and every available square metre of space in its city centre location.

There are many similarities between Dubai’s aspirations of two decades ago and those of many African countries today, who see the potential benefits that a strong aviation industry can bring to their country.



And in May, Aviation Africa 2015 – organised by *African Aerospace* in conjunction with its sister publication *Arabian Aerospace* – will be taking place in Dubai with senior, influential industry figures from both Africa and the Middle East looking at sharing experiences and challenges.

The event will take place on May 10-11 at Le Meridien Hotel, close to the International Airport.

One of the key speakers for the opening day’s events will be Paul Griffiths, the CEO of Dubai Airports, who will talk about the challenges of growth and the essential factors in developing a hub airport.

Civil aviation authorities and other government

“There is a great hunger for the knowledge that will get this growth challenge right. Many of the big aviation companies, from manufacturers to financiers, are supporting the event; it is going to be a great step for aviation in Africa.”

ALAN PEAFFORD

department leaders, as well as top executives from the region’s airlines, will be making the trip to Dubai.

Speakers confirmed from African and Middle East airlines already include Girma Wake, chairman, RwandAir (formerly CEO, Ethiopian Airlines); Fatima Beyina Moussa, CEO of ECAir and the chair of AfRAA; and Adel Ali, group chief executive of Air Arabia. Many other CEOs are also planning to attend.

“We have been really pleased with the support we are getting from the industry across all levels of government, as well as airlines of all shapes and sizes,” said Mark Brown, publisher of the Times Aerospace group, which is organising the event. “Dubai is relatively easy to reach from all across Africa and is a great way to launch this summit. From next year we will be moving the whole event to Africa.”

Conference chairman Alan Peafford said: “This is going to be a great networking event and an intriguing conference. Of course there is a frisson between many African carriers and the local airlines in the Middle East but it wasn’t that long ago that the likes of Emirates and Qatar Airways were in the same position as the African carriers are now and they have found many different ways around global and regional challenges.”



Dr Nicklas Dahlstrom, human factors manager, Emirates Airlines, is one of the keynote speakers and will be discussing the challenges of multi-cultural workforces and the threat to safety of human performance.

There are also senior figures from aviation authorities and associations, who include Hussein Dabbas, VP Africa & Middle East, IATA; Dr Hamdi Chaouk, director general, civil aviation, Lebanon; Dr Paul Antoine Marie Ganemtare, head of aviation, Economic Community of West African States (ECOWAS); and Mohamed Rahma, undersecretary at Egypt’s aviation ministry.

“What really excites me is that we will be seeing some of the new or smaller carriers at the event as well,” said Peafford. “There is a great hunger for the knowledge that will get this growth challenge right. Many of the big aviation companies, from manufacturers to financiers, are supporting the event; it is going to be a great step for aviation in Africa.”

Aviation Africa 2015 has been launched to change the perception of aviation on the continent. The panel sessions will deal with the opportunities and issues challenging the growth of the African aviation market, tackling liberalisation, training, safety, human factors, finance and business aviation.

Ethiopian Airlines is the official carrier and will be offering discounted airfares for delegates.

■ For more details go to www.aviationafrica.aero



Paul Griffiths: challenges of growth.

all in a day

PEOPLE / PERSONNES

Thierry Nzamurambaho

Marcelle Nethersole

speaks to the CEO of Nexus Africa – a subsidiary of the Saudi Arabian-based Nexus Group.

1

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■ Nexus has opened its African headquarters in Kigali. What is it going to be doing in Rwanda?

Yes, Nexus is new to Rwanda and Africa. Our Africa head office is in Rwanda but we will be offering all Nexus Group services to the rest of the African territory.

These services range from global concierge and flight dispatch, to crew schedule and maintenance management.

The backbone of Nexus flight operations is its system and infrastructure. Nexus is one of the most advanced and widely used aviation software companies.

■ What is the aviation industry like in Rwanda?

It is still small and, in general, the African passenger airline industry is still in a period of growth and development. The continent has been identified as one with huge potential.

Unfortunately, the infrastructure, political and technological challenges must first be navigated if we are to fully meet that potential. Rwanda is already doing that and so Nexus Africa has been based there to develop the African aviation industry.

We are planning a training centre and an FBO in Kigali. Rwanda is an exciting and safe country in which to operate and the access to other countries is great, so we expect to see other companies looking to Rwanda as a base.

■ What are the biggest challenges setting up a global business in Africa?

The challenges? I have mentioned some of them in the previous answers but the biggest is political stability.

■ What does a typical day entail for you as CEO of Nexus Africa?

There is no typical day or week for me. I always focus and am responsible for everything in a regular job. My mission is leading the development and implementation of the overall organisation's strategy.

■ Tell me a little about your background? How did you get to where you are today?

My background is as an innovative customer services manager with 12 years of experience in the aviation industry, where I have been in in-flight services management and airport operations management.

I won several performance awards and was promoted to in-flight services deputy manager and also head of customer relations management for RwandAir, the Rwandan national carrier, where I worked for 10 Years.

I had actually begun as a member of the cabin crew. I love managing teams and solving customer problems.

One of the best experiences you ever get comes in customer services and you know that when a customer identifies your name, plus the company's name, you have the proof that you have done a good job for that company. I loved that role but I felt I was ready for a more challenging assignment and this position really excites me.

“ The backbone of Nexus flight operations is its system and infrastructure. Nexus is one of the most advanced and widely used aviation software companies. ”

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