



BY HAROLD O. DEMUREN

International audits stimulate Nigerian airline development and public-private partnerships to continue rehabilitating infrastructure.

Early Signs of Turnaround

When people look at the skies over Nigeria today, they see a very different environment compared with what we had just a few years ago. New

Nigerian airlines with modern aircraft are supplementing strong established carriers that are rapidly renewing their fleets. Many more aircraft coming into the country are providing increased

flight frequencies to an ever-expanding number of domestic, regional and international destinations.

The dramatic turnaround (Table 1, p. 20) is the result of a deliberate policy of



the federal government of Nigeria that followed the demise of Nigeria Airways in 2003 and came in the aftermath of tragic accidents in the country (ASW, 10/06, p. 29). In November 2006, a new Civil Aviation Act became law, establishing the Nigerian Civil Aviation Authority (NCAA) as an autonomous safety regulator. Autonomy for the NCAA effectively protects it from political interference, enabling it to act without fear or favor, and provides for effective safety oversight of the aviation industry in Nigeria.

The Civil Aviation Act incorporates into domestic law provisions specified by the International Civil Aviation Organization (ICAO). The Nigerian state declarations were filed in March 2007 with the International Institute for the Unification of Private Law in Rome, and entered in July 2007 into the International Registry in Dublin, Ireland.

This law mandates that the NCAA provide safety oversight for airlines; oversight of service providers such as the Nigerian Airspace Management Agency (NAMA), the Federal Airports Authority of Nigeria, the Nigerian College of Aviation Technology in Zaria, the AEROMET Project¹ of the Nigerian Meteorological Agency, Nigerian Aviation Handling Co. and Skypower Aviation Handling Co.; economic regulation of the industry; and consumer protection. The law also establishes

the Accident Investigation Bureau (AIB) of Nigeria as an autonomous agency. The AIB is now an independent accident investigator in compliance with ICAO Annex 13, *Aircraft Accident and Incident Investigation*.

The importance to Nigeria of autonomy for the NCAA and ratification of the ICAO Convention on International Interests in Mobile Equipment — also known as the Cape Town Convention — cannot be overstated.² Because of this autonomy, Nigerian airlines and investors now have confidence that they will compete on a level playing field — with unscrupulous operators prevented from entering the market. Nigerian aviation has new regulations, and the NCAA has the political will and independence necessary to enforce strict compliance.

The Cape Town Convention ratification has given confidence to banks and financial institutions to make investments, and this has enabled Nigerian air carriers to replace their aging fleets and make other improvements. New Boeing 737NGs, Bombardier CRJ900s and Dash 8s and Embraer types are now coming into the country, and the old aircraft are leaving.

As of February 2009, Boeing, Airbus, Bombardier and Embraer had responded to one operator's requests for proposals for 22 new aircraft (Table 2, p. 21), for example. In general aviation, new business jets are being

Murtala Muhammed
Airport Two at
Lagos symbolizes
aspirations for
more public-private
partnerships.

Civil Aviation Economic Indicators in Nigeria

Activity	Amount
Domestic passengers boarded, 2008	3.5 million
Domestic passenger growth, 2007–2008	17%
International passengers boarded, 2008	3.5 million
International passenger growth, 2007–2008	21%
Aircraft movements growth, 2007–2008	11%

Note: Amounts were estimated in early 2009.

Source: Nigerian Civil Aviation Authority

Table 1

More new Nigerian-registered airliners on aprons in Lagos reflect the federal government commitments to law enforcement and safety oversight, which pave the way for fleet updates.

added — such as two new Raytheon Hawker Series 900 aircraft so far in 2009 — with more, including Hawker Series 1000 aircraft, on order. The NCAA also has been registering new Bombardier Challenger, Learjet, Cessna Citation and Embraer Legacy types. Some of the country’s large operators have ordered new aircraft, and they envision adding airplanes such as the Airbus A340, Boeing 747-800 and 787 to fleets in the coming months and years.

Four Nigerian airlines — Aero, Arik Air, Bellview Airlines and Virgin Nigeria Airways — in 2008 operated on regional routes, and Bellview and Virgin Nigeria provided service to the United Kingdom. [Virgin Nigeria announced in January a temporary suspension of long-haul flights to London and Johannesburg, South Africa.]

New routes are still opening up, creating opportunities for national companies to compete with British Airways, Emirates, Air France, KLM, Lufthansa and Virgin Atlantic. Start-up airlines such as Afrijet Airlines and Dana Air complement the established scheduled domestic carriers such as Chanchangi Airlines, IRS Airlines and Overland Airways.

Infrastructure Challenges

The federal government of Nigeria, meanwhile, remains committed to improving the nation’s decayed aviation infrastructure — the major challenge apart from high fuel prices — to provide a safer environment for the operation of existing fleets and the new aircraft. Beyond initial expenditures on this infrastructure, there had not been any significant investment for 20 years.

Tangible signs of change have appeared since a massive government-funded program in 2006 launched work on runway resurfacing, airport security fences, airfield lighting and rehabilitation of control towers and radar. We now have a new runway at Port Harcourt International Airport open to traffic, and the rehabilitation of the second runway at Murtala Muhammed International Airport at Lagos is complete. A new domestic terminal — known as Murtala Muhammed Airport Two (MMA2),

built under a private-public partnership arrangement with Bi-Courtney Limited — recently has celebrated its first year of full-scale operations.

NAMA, the air navigation service provider, has not been neglected during the nation’s aviation renaissance. The air traffic control towers at three of our major airports — Lagos, Abuja and Port



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Harcourt — have been upgraded with state-of-the-art equipment, with major improvements to a fourth control tower at Kano soon to come.

Total air traffic control (ATC) radar coverage for Nigeria's airspace will soon be a reality as the country rolls out new installations of Thales EUROCAT C, a high-performance modular ATC system that is a first for Africa. The NCAA also is gearing up to embrace flight operations with required navigation performance in which European Geostationary Navigation Overlay Service (EGNOS) and global positioning system (GPS) satellite navigation aids replace the present terrestrial navigation aids. Performance-based navigation will mean improved reliability, time and fuel savings to the airlines, and important benefits to the environment.

Much more work lies ahead, however. Apart from the MMA2 and the federal government-owned terminal building at Nnamdi Azikiwe International Airport in the capital city of Abuja, all other airports are 1970s architecture, requiring not just a facelift but development of modern functional buildings with state-of-the-art technology.

On the whole, critical safety support services like aircraft rescue and fire fighting are stretched to the limit at the

airports yet to be rehabilitated. Their associated water supply and power supply services typically are outdated, and most of their apron spaces remain congested or grossly inadequate. On the airside, most of their runways have outlived their design life, with deteriorating pavement causing some undulating runways, taxiways and aprons. The NCAA continues to pursue the completion of ongoing airport rehabilitation projects, however, and funding to address the remaining infrastructure problems.

Nigerian air navigation services — comprising the entire communication-navigation-surveillance and air traffic management (CNS-ATM) functions — pose even more challenges. Replacement

of obsolete communications equipment, improvement of the navigational equipment and the completion of the NCAA's Total Radar Project with an automatic dependent surveillance-broadcast (ADS-B) component are safety-critical. A related problem is providing adequate numbers of experienced, highly skilled air traffic controllers, CNS engineers and other professionals to maintain these services.

Finally, weather has been a recurring factor in accidents in Nigeria, underscoring efforts to ensure that all flight crews have real-time, accurate forecasts for their departure, en route and destination airports. The NCAA recognizes that acquisition of modern weather observation and forecasting technology and the

Domestic and International Air Carriers Based in Nigeria			
Company	Current Fleet	Daily Flights	Aircraft Ordered/Plans
Aero	2 737-300, 2 737-400, 2 737-500, 2 Bombardier Q300 and 2 Eurocopter EC 225 (28 helicopters total)	>50 scheduled airline >100 helicopter	5 737-500 and Bombardier Dash 8
Afrijet Airlines	1 McDonnell Douglas MD-83	NA	NA
Arik Air	6 737-700NG, 2 737-300, 4 Bombardier CRJ 900, 3 Q300 and 1 Fokker 50	54-92	3 A340-500, 16 737-800NG, 8 737-900NG, 5 777-300ER, 7 787-900, 4 Bombardier Q400 and 3 Bombardier CRJ 900NG
Bellview Airlines	737-300 and 767-200	NA	Responses to request for proposal received for up to 22 new airplanes
Chanchangi Airlines Nigeria	2 737-300	24	3 737-300, 737-400 and 757
Dana Air	3 MD-83	10	1 MD-83
IRS Airlines	2 Fokker F100, 3 Dornier 328 and 1 Embraer 145	18	2 F100 and 2 Embraer 145
Overland Airways	2 ATR 42, 2 Beech 1900D and 1 Saab 340	10	3 ATR 42 and 737-700NG
Virgin Nigeria Airways	5 737, 2 767 and 2 Embraer 190	39	24 Embraer 170 and 190
NA = Data not available or not operating scheduled service			
Note: Data reflect early 2009 reports and estimates.			
Source: Nigerian Civil Aviation Authority; airline Web sites			

Table 2

IOSA Registry Adds Two Nigerian Airlines

The registry of the International Air Transport Association (IATA) Operational Safety Audit Program (IOSA) currently includes two Nigerian operators, Bellview Airlines and Virgin Nigeria Airways. Their successful voluntary compliance with the more than 900 IOSA standards was a first in the country. The achievement also coincides with an April 2009 milestone for the association itself: For the first time since the audits began in 2003, all 224 IATA member airlines — which represent 93 percent of scheduled international air traffic — are on the IOSA registry.

“IATA membership is now synonymous with best practice in airline safety,” said Giovanni Bisignani, IATA’s director general and CEO. “This is a great achievement and an important mark of quality for all IATA airlines ... a reassurance for travelers everywhere of aviation’s serious commitment to safety. We are now working with those airlines not able to make the [Dec. 31, 2008] deadline to bring

them up to the high IOSA standard as soon as possible.”

Several of Nigeria’s air carriers pursued IOSA registration when the Nigerian Civil Aviation Authority (NCAA) in 2006 encouraged every airline that operated, or intended to operate, on international routes to adopt these industry best practices in all areas of operational safety “as if the audit were compulsory,” said Harold Demuren, director general of NCAA. IATA provided the free standards and IOSA training courses for NCAA staff, and conducted gap analyses for individual Nigerian airlines to help them prepare for an audit.

Overall, IATA has invested \$3 million in its Partnership for Safety program to help 180 airlines worldwide to participate in these training courses and to prepare for IOSA audits through a gap analysis, Bisignani said. Worldwide, 308 airlines have been added to the registry; registration is valid for two years from the date the audit commenced.

— Wayne Rosenkrans

the global challenge of a shortage of skilled manpower as the workforce ages, Nigeria is investing heavily in its people.

Constant training and re-training has been a theme embraced across the industry and in the government sectors alike. While Nigerians are sent to some of the best training facilities around the world, the country also is working to revitalize the Nigerian College of Aviation Technology and the college is rapidly regaining its reputation as one of the best aviation training

training of personnel must have high priority for all the country’s air carrier airports.

Public-Private Partnership

Aviation is an extremely capital-intensive business with huge amounts of money required for infrastructure development. The key to realizing the much-needed investment — particularly in Nigeria’s airport terminal facilities, maintenance hangars, catering facilities, hotels and car parks — is private-public partnerships.

The private sector must be given the opportunity to participate and must be encouraged with clear and consistent government policies. Equal opportunity, free-enterprise competitive markets also must be developed with care taken to ensure that government monopolies are not replaced with private monopolies.

What ultimately makes a country’s aviation system safe, functional, affordable and sustainable is the people employed by the airlines, the regulator and the service providers. Facing up to

facilities on the African continent. The country must still find ways to provide sponsorship for ab-initio training at the college for pilots and maintenance engineers, however. Special training programs for air traffic controllers and CNS system engineers also are needed.

Public-private partnerships have worked in many areas. During the past six years, for example, Boeing Commercial Airplanes assisted the NCAA in helping to grow the Nigerian aviation sector by addressing issues of aviation safety; national aviation law; ratification of the Cape Town Convention; symposiums and workshops on operations and maintenance; finance; and fleet renewal. Airbus has provided similar programs.

International Participation

For the last few years, with the support of ICAO, Nigeria has hosted and participated in the Cooperative Development of Operational Safety and Continuing Airworthiness Program (COSCAP) Banjul Accord Group³ Aviation

Safety Oversight Organization, which focuses on the West and Central African sub-region. In such venues, we also strongly support the initiatives prioritized in the Global Aviation Safety Roadmap.

The outcomes of the ICAO Universal Safety Oversight Audit Program audit in 2006 and the ICAO Universal Security Audit Program audit in 2008 — and work under way to sustain the corrective action plans implemented in 2007 and 2008 — have provided ample evidence of Nigeria's commitment to compliance with ICAO standards for aviation safety and security.

Like other non-European-registered air carriers seeking to operate routes to Europe, Nigerian airlines are subject to that region's Safety Assessment of Foreign Airlines Program. On the industry side, two Nigerian airlines successfully have completed assessments under the International Air Transport Association (IATA) Operational Safety Audit (IOSA) program (see "IOSA Adds First Two Nigerian Carriers," p. 22), and others continue to work toward IOSA registration.

Nigerian operators in 2008 complied with IATA's worldwide requirement for e-ticketing and elimination of paper tickets. The corresponding billing settlement plan has been adopted in Nigeria, and the IATA office in Nigeria now serves the West Africa sub-region.

At present, no Nigerian airlines are able to fly to the United States. A prerequisite is that the U.S. Federal Aviation Administration (FAA) assess the country as meeting Category 1 performance criteria [that is, "State does comply with ICAO standards"] under its International Aviation Safety Assessments (IASA) Program. Three Nigerian airlines have been designated to operate routes to the United States in the future: Arik, Bellview and Virgin Nigeria. Once Nigeria has IASA Category 1 and meets performance standards of a U.S. Transportation Security Administration audit, these carriers will be able to commence flights using Nigerian-registered aircraft.

There will be many other benefits to Nigeria upon achieving Category 1: further evidence of a commercial air transport industry that

meets the highest international aviation safety standards and has strong incentives to maintain them as ICAO and the FAA continue to monitor the country's safety oversight; enhanced opportunities to develop tourism to Nigeria; the potential to develop export markets for fresh produce (fruit, vegetables, flowers, seafood, etc.); a greater sense of national pride as Nigerians fly directly to and from the United States on their own country's airlines; competition on the routes leading to lower fares and better services; an enhanced position as an airline hub for West Africa; and reduced outflow of revenue from Nigeria to foreign airlines.

All African nations need safe, secure, efficient and reliable airlines that also are profitable. That requires recognition that the biggest asset of an airline, not written on its balance sheet, is the routes that it operates and that airlines need an environment of government encouragement, and market access.

Ultimately, the NCAA's long-term objectives can be condensed simply as "Fly safe for zero accidents" — the safety culture component; "Fly smart for zero losses" — the profitable airlines component; and "Fly green for zero carbon emissions" — the environmentally friendly component. ➤

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Notes

1. The AEROMET Project, one of several meteorological initiatives funded by the European Union in Nigeria, transmits real-time aviation weather data from the Nigerian Meteorological Agency to airport control towers at Abuja, Lagos and Port Harcourt.
2. This treaty, a legal instrument on financing and leasing of aircraft, was adopted in 2001. It set rules for transactions; established a global registry of international security rights in airplanes, aircraft engines and helicopters; and required national enforcement of lenders' security rights — all to reduce the risks of foreign lending and transaction costs for airlines.
3. The Banjul Accord Group comprises Cape Verde, Gambia, Ghana, Guinea, Liberia, Nigeria and Sierra Leone.

What ultimately makes a country's aviation system safe, functional, affordable and sustainable is the people.