

Bringing prosperity to Africa

The work being done by the Nigerian Airspace Management Agency typifies African efforts to improve airspace efficiency across the continent.



Credit: NAMA

African aviation is making solid progress. The continent's airlines continue to improve safety, many countries have committed to a more collaborative environment and infrastructure at key African hubs is being shaped to handle future demand.

Promoting trade and tourism across the continent in a safe and sustainable manner will generate enormous benefits. Already, the industry supports 6.8 million jobs and generates \$72.5 billion of economic activity in Africa. But even greater prosperity awaits if African skies are opened up to improve air travel within the continent.

Lagos hub

In 2017, African airlines saw traffic rise 7.5% compared with 2016, according to the International Air Transport Association. The airline load factor jumped to 70.3% and though this remains behind the global rate, combined with a seat capacity increase of just 3.6%, it should be seen as a positive trend.

One of the strongest markets is Nigeria, boosted by oil price rises in recent months. In fact, in the first half of 2018 traffic grew 10%.

Captain Fola Akinkuotu, Managing Director of the Nigerian Airspace Management Agency (NAMA), says the ANSP stands ready to handle this marked increase in business.

"To cope with this dynamic trend, the agency has embarked on a gradual and systematic overhaul of the communication, navigation and surveillance air traffic management (CNS ATM) systems, replacing them with modern versions," he says.

"Efforts are being made to boost our current manpower to cope with the growth and areas of capacity shortfalls are being addressed."

Lagos – Nigeria's largest city and served by Murtala Muhammed International Airport – is at the heart of the country's aviation activity. Akinkuotu is fully aware that it is fast becoming a major aviation hub in Africa with a number of major airlines serving the

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city, including the big three from the Gulf. This activity will doubtless be boosted by new national airline, Nigeria Air beginning operations at the end of the year.

Akinkuotu notes that the airport handles an average of 600,000 passengers monthly. To increase efficiency, NAMA has divided the Lagos sub-flight information region (FIR) into east and west sectors. This sectorisation will enhance airspace utilisation and increase capacity.

NAMA has successfully deployed two Jotron high-powered very high frequency long-range communication radios in Lagos West and Lagos East Area Control Centres. The installation provides not only safer airways but also critical resilience for airspace users. The system has its own integrated power supplies to cover an eight-hour emergency communication window should a total power outage occur.

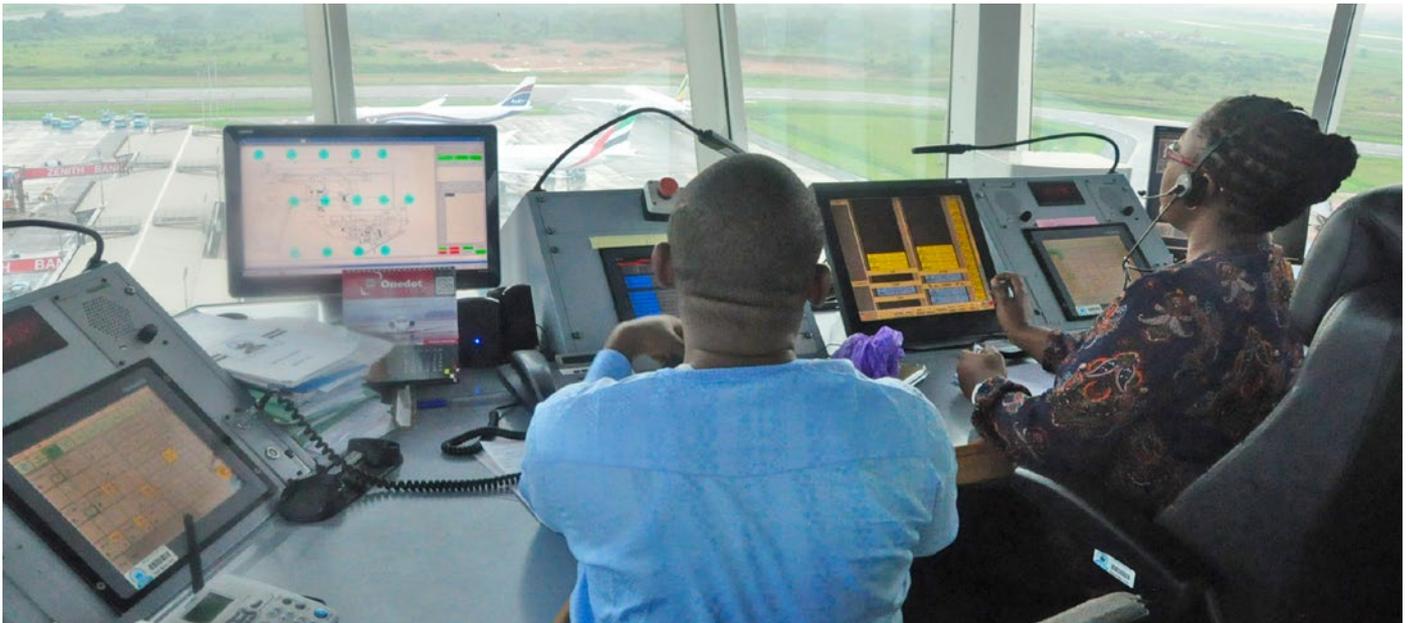
“Test transmissions have been conducted on the system by air traffic control officers with aircraft flying at different flight levels,” Akinkuotu says.

“Contact has been established for a distance of up to 220 nautical miles at different flying levels of the upper airspace and this conforms with the VHF propagation predictions submitted for scrutiny during the design phase of the project.”

The new system will also provide VHF back-up for Kano en-route East and Kano en-route West.

In a second phase of the project, NAMA will install repeater stations in strategic locations to extend the range of the radio systems.





Credit: NAMA

With air traffic projected to double over the next 15 years, quality service provision is essential.

The project is just one of many improvements that NAMA has made in recent years. Category III instrument landing systems have been installed at major airports as has very high-frequency omnidirectional radio range employing the Doppler principle (Doppler VOR) – a means of ensuring greater accuracy. Multilateration – an ability to locate aircraft with greater precision – has been implemented in the Gulf of Guinea and a host of performance-based navigation operations are helping NAMA to cope with air traffic growth.

Training in collaboration

Technologies are only one side of the equation, however. Attracting enough air traffic controllers is equally vital to ensuring quality service provision. NAMA conducts regular recruitment exercises to mitigate any shortfalls and increase numbers as appropriate.

“Prospective applicants are taken through a rigorous recruitment process,” says Akinkuotu. “Successful candidates are then sent to the Aviation Training Organisation (ATO). On successful completion

of the course at the ATO, candidates are sent to any of the major airports to commence on the job training.”

The ATO is in full compliance with ICAO guidelines. One example of this is ICAO’s TRAINAIR PLUS programme, which promotes the use of collaboration for providing safe, secure, and sustainable global air transport.

Akinkuotu says regional cooperation among ICAO member States has been going on for a long time. The ICAO Western and Central African Office is primarily responsible for promoting ICAO policies and standards and recommended practices and furthering the implementation of ICAO’s Global Air Navigation Plan.

NAMA also takes part in Regional Air Navigation meetings and the African Planning and Implementation Regional Group. On top of this, it actively participates in workshops, seminars, conferences, symposia and exchange programmes throughout Africa.

Funding issue

The work demonstrates the efforts within Africa to maintain a safe, coordinated and high-performance air navigation system.

But Akinkuotu insists that there is much more to be done. “The main challenge is the issue of funding,” he notes. “The next generation of CNS ATM systems are very costly to purchase and install.”

States working together could again be the answer. “Better collaboration will enhance economic efficiency and transparency while facilitating access to funding for aviation infrastructure and other investment needs, such as technology transfer and capacity building,” Akinkuotu continues.

Until this happens, the NAMA MD fears the potential of African aviation will remain largely untapped. The development rate of some States in the region is still too slow. That leaves a lot of business on the table.

“Air traffic is projected to double in the next 15 years,” Akinkuotu concludes. “Think how this will contribute to the economic growth of Africa.” ➔

Safety first

Nigerian Airspace Management Agency is committed to rank among the safest ANSPs not only in Africa but the world over.

Objectives include:

- quality service provision in line with international standards
- achieving a capacity increase to better manage air traffic growth and simultaneously reduce delays
- a reduction in cost for airspace users

Safety is embedded in all the agency’s operations, part of a policy of proactive management rather than reactive compliance with regulatory requirements.

Training, for example, is built to instill and maintain meaningful safety leadership skills while the Just Culture principle of non-punitive and open safety communication is well established.