

AVI AFRIQUE 2017 |
Africa Aviation Innovation Summit



Welcome to AVI AFRIQUE 2017

IFEANYI Ogochukwu, Chief Technology Strategist; Debbie Mishael Group



Debbie Mishael Group

- Technology, Human Capital, Aviation, Management and Security Consulting and Implementation firm.

A Corporate Strategy, Management, Risk Modelling, Human Capital, Aviation and Technology Advisory, Implementation and consulting firm, established to deliver premium consultancy services in multiple growth sectors across the African continent, based on expert knowledge of high level strategy implementation, human capital development underpinned by professional delivery track records of its consultants and partners across the globe.

DMG's core objective is to be an industry leader in government, business and technology- Critical Infrastructure, telecommunications, management advisory and consulting, by creating unique differentiated value for its clients while increasing their operational excellence.

Importance of Aviation to economic growth and development

Worldwide, the amount contributed to the global economy by aviation jobs is roughly 3.8 times higher than that contributed by other jobs.

Info from ataq.org

“African aviation currently supports 6.8 million jobs and contributes \$72.5 billion in GDP. Over the next 20 years passenger demand is set to expand by an average of 5.7% annually. This opens up incredible economic opportunities for the continent’s 54 nations.”

IATA

Strategy and Tactics

- **Leadership** : Government decision and policy makers need to understand and proactively facilitate the clear and proven benefits of aviation. Aviation benefits provides the evidence and the facts they need”: @
Regional and State Levels
- Strategic plans and investment decisions towards a global aviation system operability should encompass Short Term, Medium Term and Long term Strategies with measurable metrics for effective implementation

No Country Left Behind (NCLB) Agenda

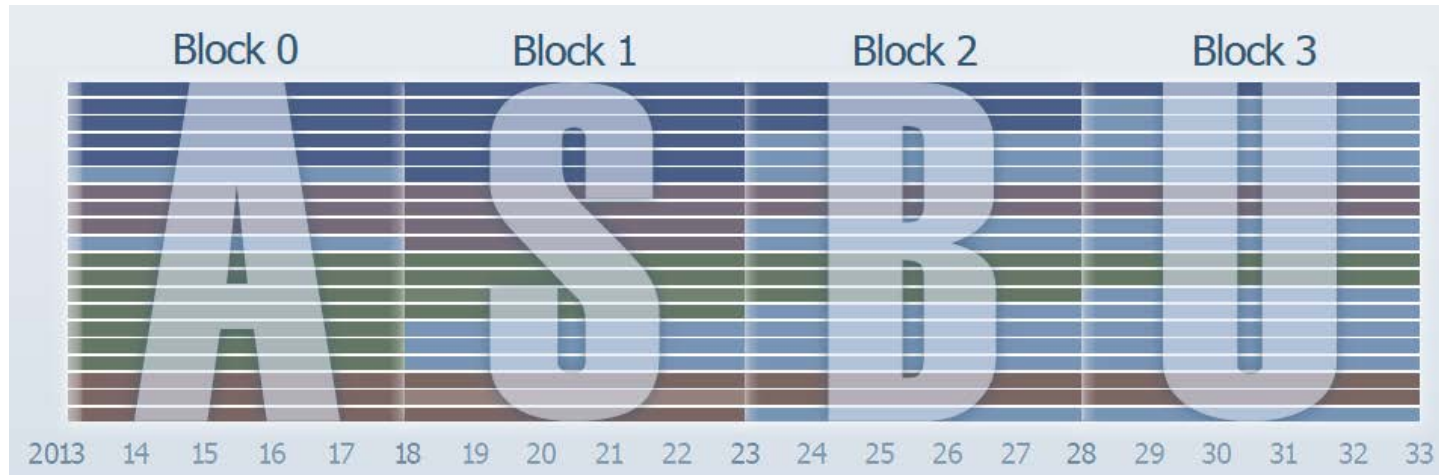
Initiated on
February 2015
in response to
the ICAO NCLB
Campaign

Assist States in
implementing
ICAO Standards
and
Recommended
Practices
(SARPs)

Also promote
ICAO's efforts to
resolve
Significant
Safety Concerns
(SSCs)

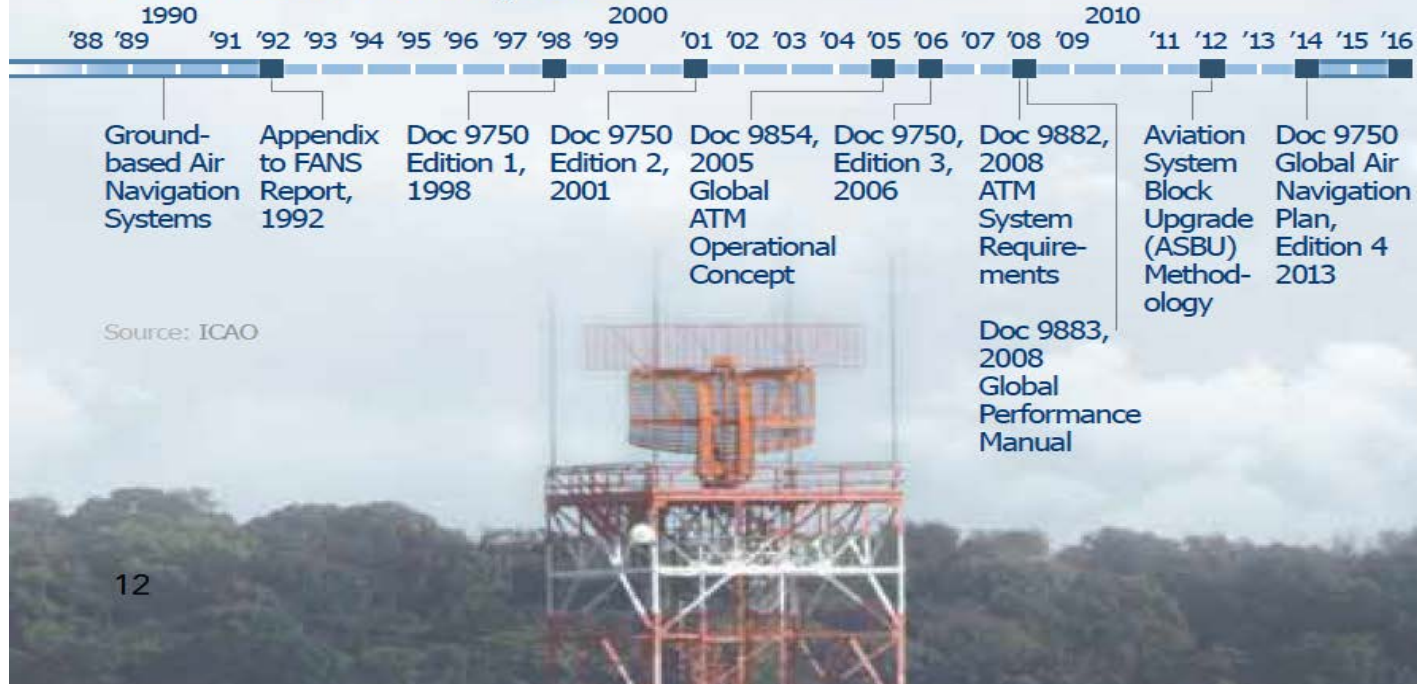
Allow States to
benefit from the
socio-economic
contributions of
safe and reliable
air transport

NCLB & ASBU --- two sides of the same coin



The Aviation System Block Upgrades (ASBU) is the Air Traffic Management (ATM) modernization strategy introduced by the International Civil Aviation Organization (ICAO). The ICAO ASBU refers to the target timelines for a group of operational improvements, organized in four performance improvement areas and individual modules. The ASBU modules have been included within the 2013-2028 Global Air Navigation Plan (Doc 9750). ICAO is working with its member states to help each determine exactly which capabilities they should have in place based on their operational requirements.

Evolution of ATC Systems



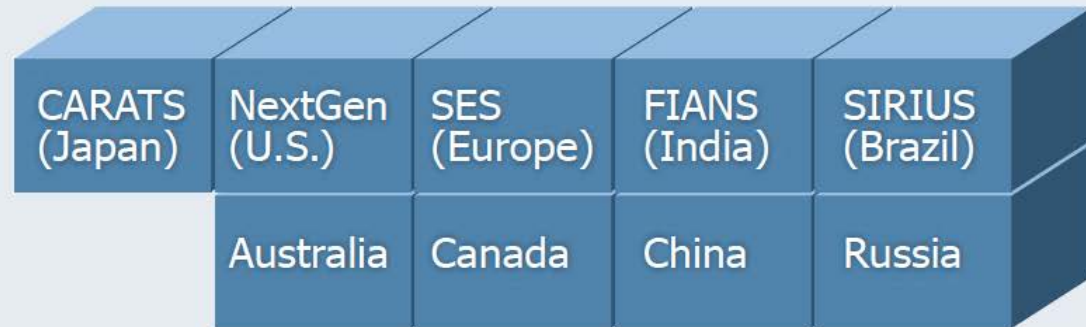
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ASBU will enable future aviation systems world wide to efficiently manage traffic demand and enhance safety, capacity, predictability, security, effectiveness, and environmental stewardship.

GANP includes planning elements for technical, operational, economic, environmental, financial, legal and institutional aspects

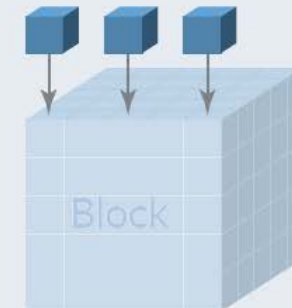
Air Traffic Management Modernisation Programmes

Harmonisation gains
The GANP presents a vision that will assist ICAO, States, and air navigation service providers ensure global interoperability and harmonisation.



ASBU Modules

Each of the ASBU Blocks is composed of Modules (capabilities).



Source: ICAO

- Airport Operations
- Globally Interoperable Systems and Data
- Optimum Capacity and Flexible Flights
- Efficient Flight Paths

The Block Upgrades (0,1,2 and 3) represent a twenty + year planning and implementation time frame as defined by the GANP. The PIAs and their modules are organized into a series of four, one for each PIA (Blocks 0,1,2 and 3) assigned to an implementation time frame

NIGERIA'S NATIONAL STATUS

AFI Region ASBU Categorisation and Prioritization

Summary of Aviation Systems Block Upgrade in Nigeria (2013 – 2018):

- **Completed Modules:** 8 (TBO, CCO, CDO, SNET, FRTO, ACAS, ASUR, AMET)
- **Ongoing Modules:** 7 (DATM, ACDM, FICE, SURF, APTA, RSEQ, NOPS/ATFM)
- **Not Yet Implemented Modules:** 3 (ASEP, WAKE, OPFL)

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Performance Improvement Areas	Module	Module Title	Priority	Categorisation	Status
Airport Operations	B0-15 RSEQ	Improve Traffic flow through Runway Sequencing (AMAN/DMAN)	2	Optional	On going
	B0-65 APTA	Optimization of Approach Procedures including vertical guidance	1	Essential	On going
	B0-70 WAKE	Increased Runway Throughput through optimized Wake Turbulence Separation	2	Specific	Not Done Yet
	B0-75 SURF	Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)	2	Optional	On going
	B0-80 ACDM	Improved Airport Operations through Airport-CDM	1	Desirable	On going

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Performance Improvement Areas	Module	Module Title	Priority	Categorisation	Status
Globally Interoperable Systems and Data - Through Globally Interoperable System Wide Information Management	B0-25 FICE	Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration	1	Essential	On going
	B0-30 DATM	Service Improvement through Digital Aeronautical Information Management	1	Essential	On going
	B0-105 AMET	Meteorological information supporting enhanced operational efficiency and safety	1	Desirable	Done

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Performance Improvement Areas	Module	Module Title	Priority	Categorisation	Status
Efficient Flight Path – Through Trajectory-based Operations	B0-10 FRTO	Improved Operations through Enhanced En-Route Trajectories	1	Essential	Done
	B0-35 NOPS/ ATFM	Improved Flow Performance through Planning based on a Network-Wide view	2	Desirable	On going
	B0-84 ASUR	Initial capability for ground surveillance	2	Desirable	Done
	B0-85 ASEP	Air Traffic Situational Awareness(ATSA)	2	Specific	Not Done Yet
	B0-86 OPFL	Improved access to Optimum Flight Levels through Climb/Descent Procedures using ADS-B	2	Specific	Not Done Yet
	B0-101 ACAS	ACAS Improvements	1	Essential	Done
	B0-102 SNET	Increased Effectiveness of Ground-Based Safety Nets	2	Desirable	Done

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Performance Improvement Areas	Module	Module Title	Priority	Categorisation	Status
Optimum Capacity and Flexible Flights – Through Global Collaborative ATM	B0-05 CDO	Improved Flexibility and Efficiency in Descent Profiles (CDO)	2	Desirable	Done
	B0-40 TBO	Improved Safety and Efficiency through the initial application of Data Link En-Route	2	Desirable	Done
	B0-20 CCO	Improved Flexibility and Efficiency Departure Profiles - Continuous Climb Operations (CCO)	2	Desirable	Done

Action Points: Tactics

- Education and Enlightenment of Aviation benefits
- National development strategies and plans
- Funding Mechanism
- Implementation of various Regional accords: Yamoussoukro, AU Single Africa Air Transport Market (SAATM)
- Disruptive and rapid technology Adoption
- Performance based approach
- Deliberate involvement in ICAO programmes
- Developing the Next Generation Aviation Leaders
- Aviation Shared Services
- CNS/ATM as a Service
- Peer to peer support system
- Bilateral and multi lateral engagements

Activities

- Young professional programme
- Human capacity development e.g Workshops on the AFI GANP planning – Dakar
- Infrastructure World Aviation Forum – Nigeria
- African Flight procedure office – Dakar
- Consolidated Surveillance data sharing: MOUs- Nigeria and Cameroun, Ghana, Chad, Niger, etc
- Cooperation meetings between Asecna and Nigeria
- Funding discussions with ECOWAS
- MOU for SAR shared facilities
- Training Centre Shared services

Conclusion

- Africa's strategic position: emerging market
- Effective air traffic management (ATM) has a vital role to play in ensuring connectivity, which boosts GDP growth by enabling access to markets and tourism.
- Achieving the NCLB Agenda and AFI ASBU programme will radically change the narrative for African Aviation

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Thank You

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