



INTERNATIONAL CIVIL AVIATION ORGANIZATION

A United Nations Specialized Agency

First Working Meeting on the Implementation of AN-Conf/12 Rec. 3/8 (c) (Dakar, Senegal, 13-14 October 2014)

Agenda Item 2b): Review/endorsement of Elements/Key Performance Indicators/Supporting Metrics of ASBU Module B0-DATM: Service improvement through Digital Aeronautical Information Management.



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2. REGIONAL PERFORMANCE OBJECTIVE – B0-30/DAIM:

Service Improvement through Digital Aeronautical Information Management

**Performance Improvement Area 2: Globally Interoperable Systems and Data –
Through Globally Interoperable System Wide Information Management_{ent}**

3. ASBU B0-30/DAIM: Impact on Main Key Performance Areas

	Access & Equity	Capacity	Efficiency	Environment	Safety
Applicable	N	N	N	Y	Y

Service Improvement through Digital Aeronautical Information Management
Performance Improvement Area 2: Globally Interoperable Systems and Data –
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4. ASBU B0-30/DAIM: Planning Targets and Implementation Progress

5. Elements	6. Targets and implementation progress (Ground and Air)
1. QMS for AIM	Annex 15 (2010) APIRG-Dec. 2015 2014
2. e-TOD implementation	Annex 15 (2008) APIRG-Dec. 2016 2014
3. WGS-84 implementation	Annex 15 (1998)Implemented- APIRG- 2014 (Full Implementation)
4. AIXM implementation	Annex 15 (2013) APIRG-Dec. 2018 2014
6. E-AIP implementation	Annex 15 (2013) APIRG-Dec. 2015 -2014
7. Digital NOTAM	Annex 15 (2016) APIRG-Dec. 2018 -2017

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7. ASBU B0-DATM: Implementation Challenges

Elements	Implementation Area			
	Ground System Implementation	Avionics Implementation	Procedures Availability	Operational Approvals
1. QMS for AIM	Lack of electronic Database. Lack of electronic access based on Internet protocol services.	NIL	Lack of procedures to allow airlines provide digital AIS data to on-board devices, in particular electronic flight bags (EFBs). Lack of training for AIS/AIM personnel.	NIL
2. e-TOD implementation				
3. WGS-84 implementation				
4. AIXM implementation				
5. e-AIP implementation				
6. Digital NOTAM				

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8. ASBU B0-30/DAIM: Performance Monitoring and Measurement
8A. ASBU B0-30/DAIM: Implementation

Elements	Performance Indicators/Supporting Metrics
1. QMS for AIM	Indicator: % of States QMS Certified Supporting Metric: number of States QMS Certification
2. e-TOD implementation	Indicator: % of States e-TOD Implemented Supporting Metric: number of States with e-TOD Implemented
3. WGS-84 implementation	Indicator: % of States WGS-84 Implemented Supporting Metric: number of States with WGS-84 Implemented
4. AIXM implementation	Indicator: % of States with AIXM implemented Supporting Metric: number of States with AIXM implemented



8. ASBU B0-30/DAIM: Performance Monitoring and Measurement

8A. ASBU B0-30/DAIM: Implementation

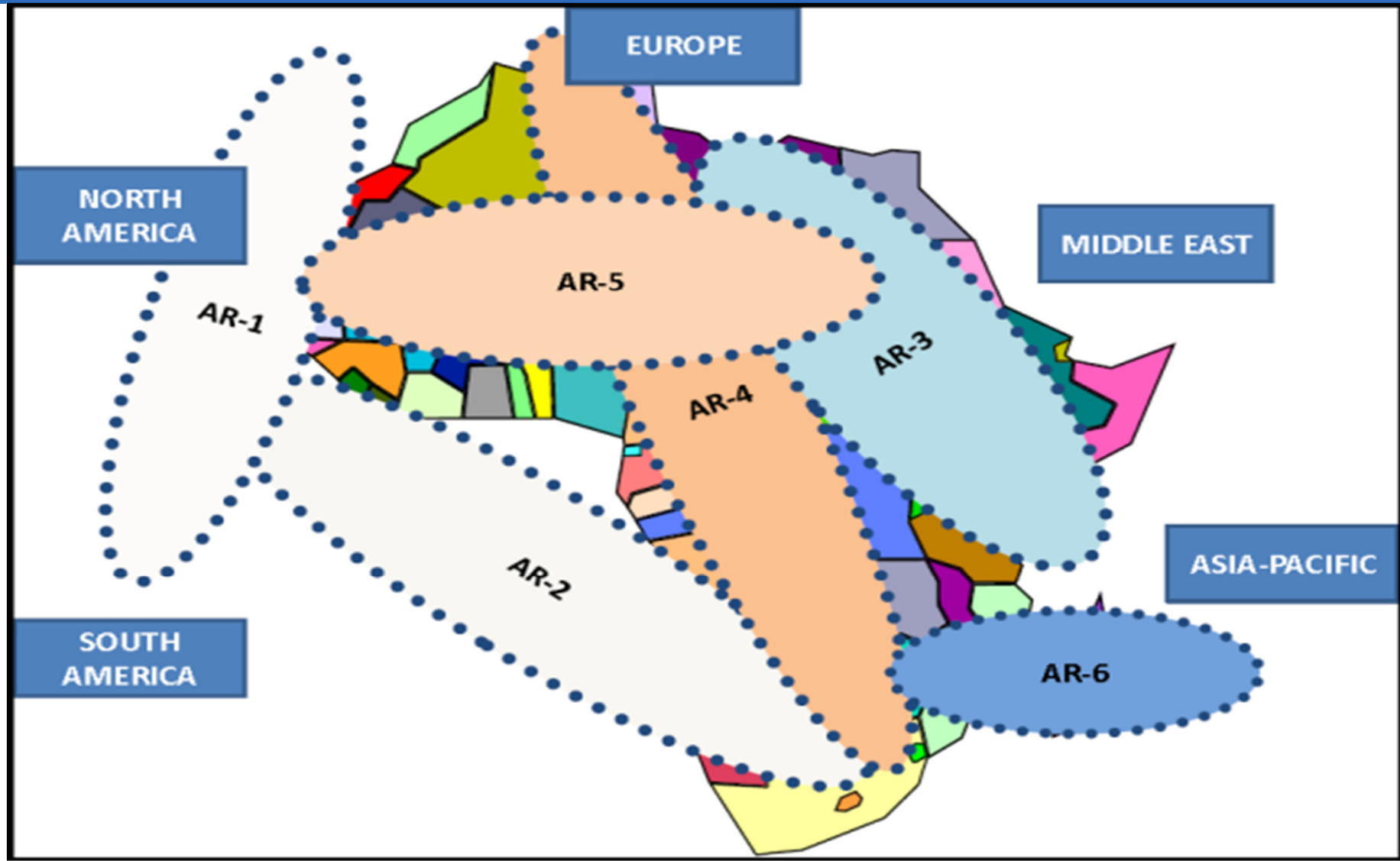
Elements	Performance Indicators/Supporting Metrics
5. e-AIP implementation	Indicator: % of States with e-AIP Implemented Supporting Metric: number of States with e-AIP Implemented
6. Digital NOTAM	Indicator: % of States with Digital NOTAM Implemented Supporting Metric: number of States with Digital NOTAM Implemented
7. Action Plans	Implementation of the AFI-CAD Database Concept through the establishment of sub regional and regional databases of ASECNA and South Africa
8. Remarks	Indicator: % of States with AIXM implemented Supporting Metric: number of States with AIXM implemented



8A. ASBU B0-DATM: Performance Monitoring and Measurement
8 B. ASBU B0-DATM: Performance Monitoring

Key Performance Areas	Metrics (if not indicate qualitative Benefits)
Access & Equity	NA
Capacity	NA
Efficiency	Reduced cost in terms of data inputs and checks, paper and post , especially when considering the overall data chain, from originators, through AIS to the end users.
Environment	Reduced amount of paper for promulgation of information concerning airspace status will allow for more effective airspace utilization and allow improvements in trajectory management
Safety	Reduction in the number of possible inconsistencies. Module allows reducing the number of manual entries and ensures consistency among data through automatic data checking based on commonly agreed business rules,

AIR NAVIGATION – Homogeneous areas and major traffic flows in AFI Region



Regional Air Navigation Plan Implementation - AIM



Measuring Against the Global Plans

AFI Regional Performance Dashboards

AIR NAVIGATION

Indicators/Metrics

- 1. PBN Approach (HQ data)**
% of runways at international aerodromes (as defined in DOC7910/AIP) with APV
- 2. ATFM (Regions data) - TBC**
% of States using ATFM measures where required
- 3. AIM (Regions add Phase 2 data)**
Status of implementation of selective steps
- 4. Ground-Ground Digital Coordination/Transfer (Regions data)**
% of FIRs within which all applicable ACCs have implemented at least one interface to use AIDC/OLDI with neighboring ACCs
- 5. Environmental Benefit (HQ data)**
% fuel burn reduction

B0-DATM (B0-30)

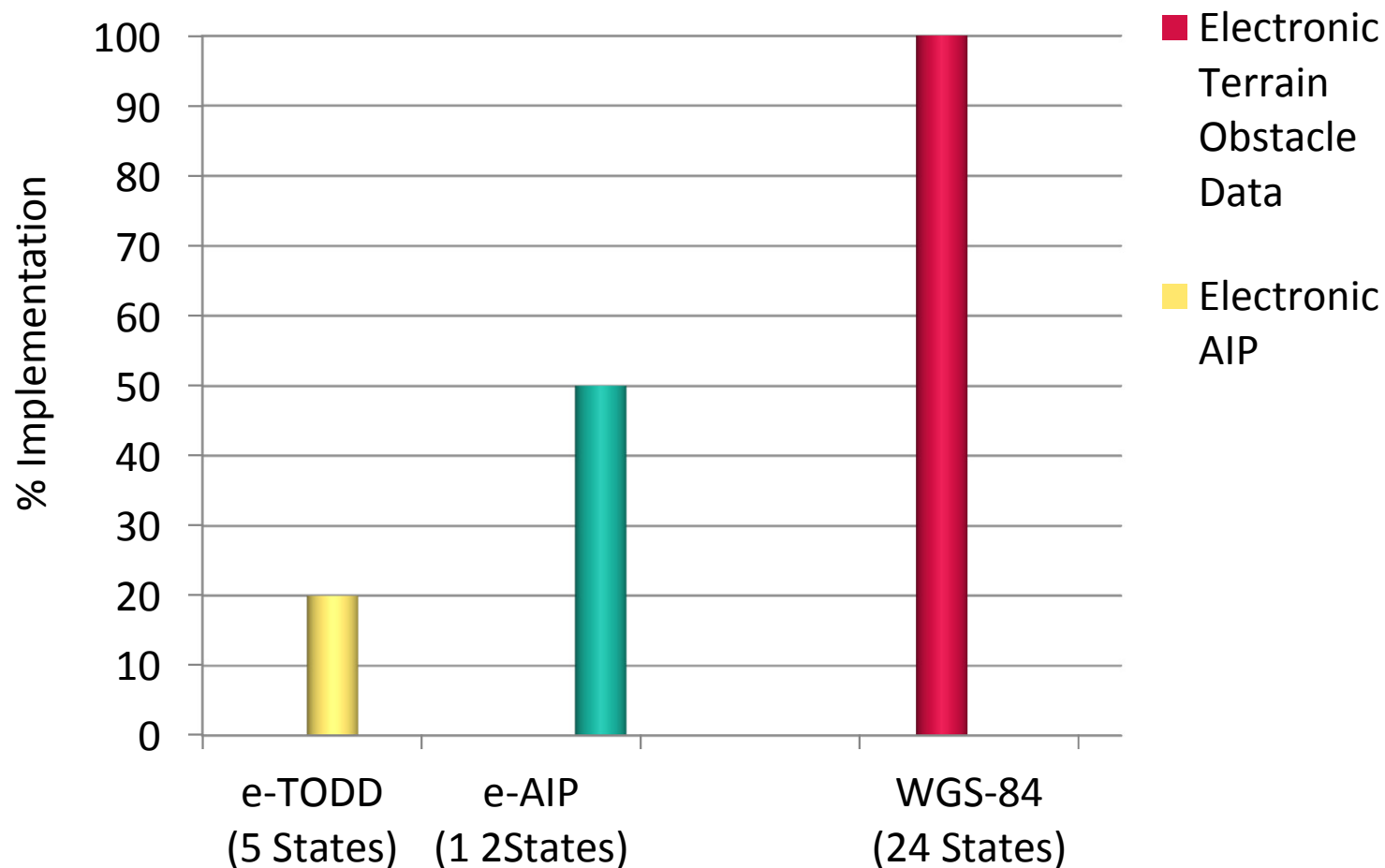
- % of States WGS-84 Implemented: **95%**
- Number of States with WGS-84 Implemented: **23**
- % of States e-TOD Implemented: **20%**
- Number of States with e-TOD Implemented: **19**
- % of States with e-AIP Implemented: **50%**
- Number of States with e-AIP Implemented: **12**
- % of States with Digital NOTAM Implemented: **0%**
- Number of States with Digital NOTAM Implemented: **0**

(also possible success stories for GANR)

AIR NAVIGATION – AIS/AIM Transition in WACAF States



**Centralized AIS/AIM data base (AFI CAD) established and integrated
improvement of AIS/AIM with proper training & qualification on-going**

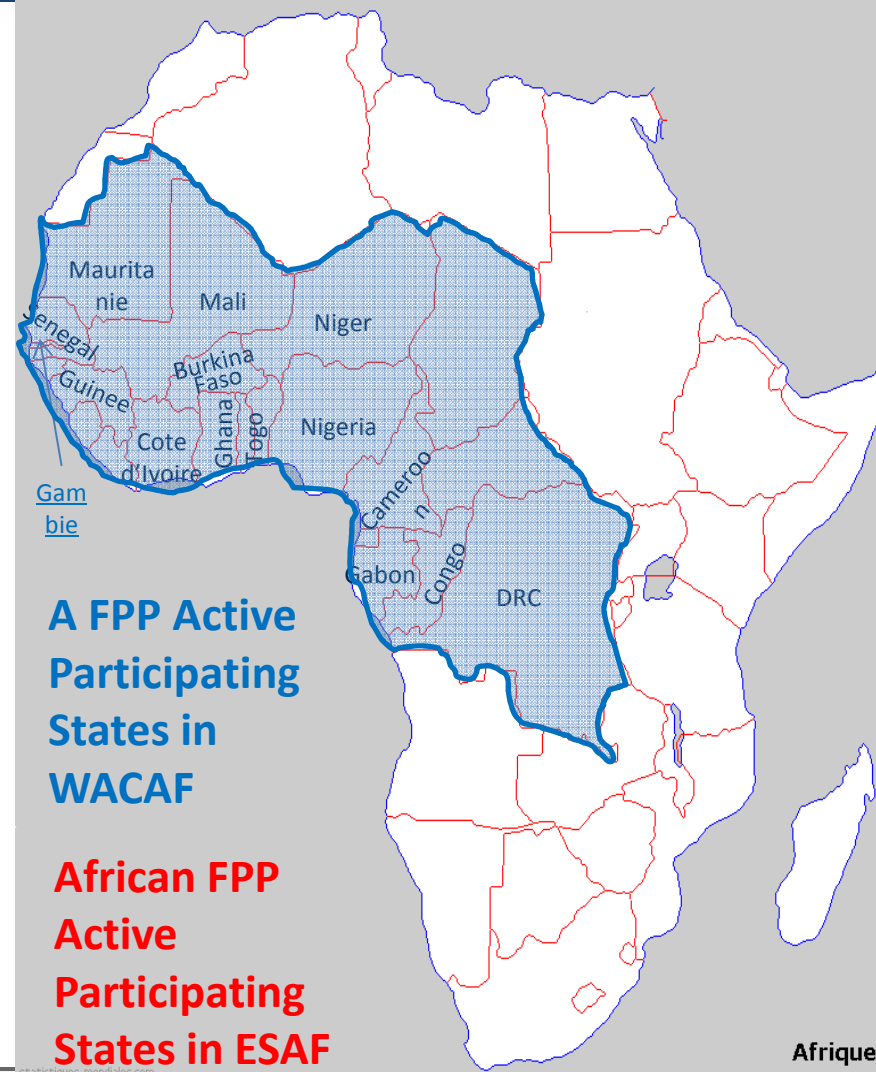


SUCCESS STORIES:

African Flight Procedure Programme (A FPP)



- Host Administration:
 - ✓ ASECNA Dakar, Sénégal
- Programme Document Signed 27 May 2014:
 - ✓ ICAO / ASECNA
 - ✓ ICAO / Participants States
- Active Participating States:
 - ✓ 19 (18 in WACAF)
- User States: 1 (none in WACAF)
- Sponsor(s): France, AFCAC, AIRBUS



SUCCEs - CHALLENGES

AIR NAVIGATION SERVICES



Safety Oversight of Regional / Multinational ANSPs

- Lack of ANS regulations
- Absence of ANS PEL (ATCOs and ATSEP)
- Lack of qualified Inspectors
- Slow implementation of SSP/SMS

Missing Operational DATA

- AFTN Availability sometime lower than 97%;
- Loss of Flight Plans, NOTAMS, OPMETs
- Poor ATM Systems automation;
- Coordinated mitigation measures under development:
 - ✓ Procedures
 - ✓ Training
 - ✓ Facilities upgrades

PRIORITIZATION OF ASBU BLOCK 0 MODULES FOR AFI REGION



✈️ Table 1 provides the list of Block 0 modules with suggested allocated priority for implementation within the AFI Region. The allocation of priority is based on the following criteria. Priority 1 = immediate implementation; Priority 2 = recommended implementation. Although AFI region has categorized all 18 Block 0 Modules for its implementation, Only 8 Modules will have priority 1 as it covers most of the AFI States. Remaining Modules are priority 2 and applies to only specific State (s) of AFI region.



Table 1: AFI ASBU Block 0 Priority

PIA	Module Description	Module	Priority
PIA 1	Improve Traffic flow through Runway Sequencing (AMAN/DMAN)	B0-15 RSEQ	2
	Optimization of Approach Procedures including vertical guidance	B0-65 APTA	1
	Increased Runway Throughput through optimized Wake Turbulence Separation	B0-70 WAKE	2
	Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)	B0-75 SURF	2
	Improved Airport Operations through Airport-CDM	B0-80 ACDM	1
	PIA 2	Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration	B0-25 FICE
Service Improvement through Digital Aeronautical Information Management		B0-30 DATM	1
Meteorological information		B0-105	1

3. Recommendation

 3.1 The meeting is invited to :

a) review and update/adopt the table to the ASBU B0-DATM as listed above.

b) urge States to align their AIM National Plans with the AFI Region Air Navigation Strategy objectives/priorities and performance targets related to AIM.