



INTERNATIONAL CIVIL AVIATION ORGANIZATION

THIRD MEETING OF THE AFI REGION AIM IMPLEMENTATION TASK FORCE

(Dakar, Senegal, 15 – 17 October 2014)

Agenda Item 4: Performance Framework for AIM Implementation in the AFI.

(Presented by the Secretariat)

SUMMARY

This Paper presents the ASBU modules related to interoperability system and AIM data presented at the 12th Air Navigation Conference in November 2012. It is expected that operational improvements will be outlined in a logical stepwise block upgrades that at a minimum: *identifies the operational benefit; determine the necessary procedures; nominate the required technology; develop the business case; and propose a preliminary strategy for regulatory approval.*

Action by the meeting is at **paragraph 3.**

REFERENCES:

ATS/AIS/SAR SG/13 report

APIRG/19 Reports

Doc. 9854, Global Air Traffic Management Operational Concept

Doc. 9750, Global Air Navigation Plan

1. INTRODUCTION

1.1 The meeting may recall that the ICAO planning objective is to achieve a seamless global Air Traffic Management (ATM) system through the implementation of air navigation systems and procedures in a progressive, cost-effective and cooperative manner. Aeronautical information service is one of the core concepts of ATM and flight operations and impacts safety of air navigation seriously. Along with the rapid development of ATM systems, navigation methods and aircraft systems and the needs of air traffic management and flight operations for the right and accurate information, AIS systems have to develop to satisfy their users. In addition, the concept of Aeronautical information management (AIM) has been introduced by ICAO to meet the requirements of AIS users. AIM will permit a comprehensive change of the type and way of provision of aeronautical information services.

1.2 In this regard, ICAO has adopted a performance based approach for regional and national air navigation planning, in line with the *Global Air Navigation Plan* (Doc 9750).

1.3 It is to be recalled that the SP AFI RAN 08 meeting held in Durban, South Africa agreed to the introduction of a performance-based approach to the planning of air navigation services in the AFI region. Subsequently, a series of performance framework Forms (PFF) relating to air navigation fields was considered by the meeting and referred to APIRG as a mechanism to identify the performance objectives as well as to establish timeframes for the regional planning and implementation process. This was further confirmed by the following APIRG/17 Decision17/87 (a) :

DECISION 17/87: PLANNING FOR THE TRANSITION FROM AIS TO AIM

That, based on the ICAO global ATM operational concept and the ICAO roadmap for the transition from AIS to AIM, the AFI AIM Implementation Task Force (AFI AIM TF):

- a) **Develop performance goals for the transition from AIS to AIM in the AFI Region and identify achievable milestones; and**

1.4 The main objective of this Paper is to provide guidance to States, in accordance with the requirements of AFI Part of the Draft e-ANP to be presented at the 12th Air Navigation Conference. The meeting will also review the ASBU modules related to interoperability system and data (AIM) presented at the 12 Air Navigation Conferences. It is expected that operational improvements will be outlined in a logical stepwise block upgrades that at a minimum: *identifies the operational benefit; determine the necessary procedures; nominate the required technology; develop the business case; and propose a preliminary strategy for regulatory approval.*

2. DISCUSSION

2.1 According to the ICAO road map for transition from AIS to AIM, in AIM, some key aspects should be considered. Some of them are as follows:

- Quality and Quality management system
- WGS-84
- AIRAC adherence
- AIS Automation
- Digital NOTAM
- eAIP
- eTOD

2.2 The current PFFs have been redesigned and aligned with ASBU framework and called the Air Navigation Report Form (ANRF).The ANRF will be the basis for performance monitoring of the ASBU implementation. The ANRF templates for all the 18 Modules of the ASBU Block 0 will be available in Volume II-FASID –FASID of each Regional eANP .

2.3 Effective 2014, on annual basis A Global Air Navigation Report will be released which indicates the following: (See IP-5 to DP/4)

- The Regional Air Navigation Reports (ANRF) that provides data for shared review will be utilized in developing the annual Global Air Navigation Report.
- The spirit of such a global review is to assist in understanding which areas requires special attention and effectively improve air navigation performance in the future.
- This review also provides an opportunity for world civil aviation community to compare the progress across different ICAO Regions in the establishment of air navigation infrastructure.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this working paper;
- b) consider and endorse the new ASBU framework and called the Air Navigation Report Forms (ANRF) attached hereto, for review and update as necessary under **Appendix-A**
- c) consider and endorse the new ASBU framework and update as necessary under **Appendix-B**
- d) develop additional ANRF's to meet any new performance objective identified for the AFI Region as necessary

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1. AIR NAVIGATION REPORT FORM (ANRF)

AFI Regional Planning for ASBU Modules

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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 | | | | | |
| 3. ASBU B0-30/DAIM: Impact on Main Key Performance Areas | | | | | |
| | Access & Equity | Capacity | Efficiency | Environment | Safety |
| Applicable | N | N | Y | Y | Y |

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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) Dec. 2015 2014 |
| 2. e.TOD implementation – | Annex 15 (2008) Dec. 2016 2014 |
| 3. WGS-84 implementation - | Annex 15 (1998) Implemented |
| 4. AIXM implementation - | Annex 15 (2013) Dec. 2018 2014 |
| 5. E-AIP implementation – | Annex 15 (2013) Dec. 2015 2014 |
| 6. Digital NOTAM – | Annex 15 (2016) Dec. 2018 2017 |

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|--|--|--------------------------------|--|------------------------------|
| 7. ASBU B0-30/DAIM: 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 - 14 States |
| 2. e-TOD implementation – | Indicator: % of States e-TOD Implemented Supporting Metric: number of States with e-TOD Implemented - 5 States |

| 8. ASBU B0-30/DAIM: Performance Monitoring and Measurement | |
|---|---|
| 8A. ASBU B0-30/DAIM: Implementation | |
| Elements | Performance Indicators/Supporting Metrics |
| 3. WGS-84 implementation - | Indicator: % of States WGS-84 Implemented Supporting Metric: number of States with WGS-84 Implemented – 23 States |
| 4. AIXM implementation – | Indicator: % of States with AIXM implemented Supporting Metric: number of States with AIXM implemented – 5 States |
| 5. e-AIP implementation – | Indicator: % of States with e-AIP Implemented Supporting Metric: number of States with e-AIP Implemented – 12 States |
| 6. Digital NOTAM – | Indicator: % of States with Digital NOTAM Implemented Supporting Metric: number of States with Digital NOTAM Implemented - 0 states |

| 8A. ASBU B0-30/DAIM: Performance Monitoring and Measurement | |
|--|---|
| 8 B. ASBU B0-30/DAIM: Performance Monitoring | |
| Key Performance Areas | Metrics (if not indicate qualitative Benefits) |
| Access & Equity | NA |
| Capacity | NA |
| Efficiency | NA |
| Environment | Reduced amount of paper for promulgation of information |
| Safety | Reduction in the number of possible inconsistencies |
