INTERNATIONAL CIVIL AVIATION ORGANIZATION

AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP
TWENTIETH MEETING (APIRG/19)
(Yamoussoukro, Cote d'Ivoire, 30 November - 2 December 2015)

Agenda Item 2: **Performance Framework for AFI Regional Air Navigation Planning and Implementation**

2.5: **Aeronautical Information Management (AIM): Review of the Report of the ATM/AIM/SAR/SG-14 Meeting.**

(Presented by Secretariat)

SUMMARY

This paper presents the report of the Fourteenth Meeting of the ATM/AIM/SAR-SG on matters pertaining to Aeronautical Information Management. The Sub-Group reviewed:

- the action taken on various AIM related conclusions and decisions of APIRG
- Status of implementation of the ATM Sub-Group work programme and related AIM Task Forces/Working Groups as assigned by APIRG
- the outcome of the Third Meeting of the APIRG AFI AIM Implementation Task Force (AFI AIM TF/3) held in Dakar, Senegal from 15-17 October 2014
- the outcome First Working Group Meeting on the implementation of ANC Rec. 3/8 (c) held in Dakar, Senegal from 13-14 October 2014
- the linkage of remaining tasks of the AIM Task Force with Aviation System Block Upgrades (ASBU) Modules B0 and Regional Performance objectives for AIM;
- the new Structure of the AFI regional air navigation plan (AFI e-ANP) and development of draft material for endorsement by APIRG.

The ATM/AIM/SAR/SG/14 meeting also identified and developed Projects based on ASBU B0-DATM and Regional Performance objectives

Action by the meeting is at paragraph 3.

REFERENCES

- APIRG/EO Report.
- APIRG/19 Report
- AFI AIM Implementation Task Force/3 – Report
- 12th Air Navigation Conference Report
- ATM/AIM/SAR/SG/14

Strategic objective(s)	This working paper related to the Strategic Objectives **A, B and E.**

1. INTRODUCTION

1.1 This paper presents the report of the Fourteenth Meeting of the ATM/AIM/SAR-SG on issues related to Aeronautical Information Management.

2. DISCUSSION

Status of implementation of the work programme of the Sub-group

2.1 The Sub-Group reviewed the AIM related work implicated in the ASBU Block 0 Modules and Regional Performance Objectives adopted by APIRG at its Nineteenth meeting in 2013, as well as remaining tasks from the subsidiary bodies of APIRG.

Linkage of Remaining Tasks of the Sub-Group with Aviation System Block Upgrades Modules (B0) and Regional Performance Objectives

2.2 Based on the remaining AIM activities, the main areas of **AIM** activities to be included in the projects management formats, have been identified in the updated AFI regional performance framework forms (PFFs) and Air Navigation Reporting Forms (ANRF) in the **AIM** field is listed below:

a) **AFI B0-DATM PFF-1:** Transition from AIS to AIM in the AFI region;

b) **AFI B0-DATM PFF-2:** Implementation of WGS-84 and e-TOD in the AFI region.

c) **AFI B0-DATM ANRF-1** Service improvement through Digital AIM

Review of the new Air Navigation Plan structure and the development of DRAFT material for endorsement by APIRG

2.3 The Sub-group reviewed the new Air Navigation Plan structure and developed relevant draft material for endorsement by the APIRG to be discussed under **Agenda item 3** of this meeting.

Identification and Development of Projects based on ASBU modules and regional performance objectives

2.4 The Sub-Group reviewed the work implicated in the ASBU Block 0 Modules and Regional Performance Objectives adopted by APIRG at its Nineteenth meeting in 2013, as well as its remaining tasks, and agreed on the list of Projects related to the mandate of the IIM/SG to be discussed under **Agenda 4** of this meeting.

Review of the outcome of the ATM/AIM/SAR-Sub Group 14th Meeting held in Dakar, Senegal from 11-14 May 2015

2.5 The Sub-group was informed that AIM projects will be addressed through the Infrastructure and Information Management Sub-Group (IIM/SG). The ATM/SG further noted that during the transition to new APIRG organization, the Secretariat and APIRG contributory bodies would continue implementing the work programmes as previously endorsed by APIRG and carry out necessary action to facilitate the operationalization of the new organizational structure and working methods of the APIRG, including reformulation of existing activities that continue to have relevance, into the projects management formats, to be presented for endorsement by the next meeting of the Group.

Review of the Report of the First Working Group Meeting on the implementation of ANC Rec. 3/8 (c)

2.6 The ATM/AIM/SAR/SG/ meeting reviewed the report of the First Working Group Meeting on the implementation of ANC Rec. 3/8 (c) held in Dakar, Senegal from 13-14 October 2014 and its deliberations by the meeting, resulted with endorsement of the list of Draft Conclusions and Recommendations at **Appendix** to this working paper**.**

ICAO AIM/SWIM Seminar for the AFI Region in Dakar, Senegal from 7 to 9 September 2015

2.7 In compliance with APIRG Conclusion 19/41, the ICAO Regional Offices in Dakar and Nairobi, conducted an ICAO AIM/SWIM Seminar for the AFI Region in Dakar, Senegal from 7 to 9 September 2015. This Seminar was held back to back with the Start-up Workshop for B0-DATM Service Improvement through Digital Aeronautical Information Management Projects at the same venue from 10 to 11 September, 2015.

2.8 This Seminar supported States with regard to the planning and implementation related to the transition from AIS/AIM to Information Management/SWIM, in order expedite the harmonized implementation of the AIM/SWIM requirements.

2.9 The Seminar was attended by 61 participants representing (24) States within the ICAO ESAF and WACAF Region including 10 Participants from ASECNA representing 17 ASECNA Member States, 2 Participants from Roberts FIR Secretariat representing (Liberia, Sierra Leone and Guinea), 1 Participant representing IFAIMA and 1 Participant representing Industry from AVITECH, Germany, and 1 Participant representing the African Civil Aviation Commission (AFCAC).

Start-up Workshop for B0-DATM Service Improvement through Digital Aeronautical Information Management Projects at the same venue from 10 to 11 September, 2015

2.10 In compliance with Twelfth Air Navigation Conference (AN-Conf/12) under Recommendation 6/1– Regional performance framework–planning methodologies and tools, inter alia, requested States and PIRGs to focus on implementing the ICAO Aviation System Block Upgrades (ASBUs) Block 0 Modules according to their operational requirements, recognizing that these modules were ready for deployment, the ICAO Regional Offices in Dakar and Nairobi, conducted an ICAO Start-up Workshop for ASBU-Module B0–DATM: (Service Improvement through Digital Aeronautical Information Management) in Dakar, Senegal from 10 to 11 September 2015.

2.11 The Workshop enforced the use of project management principles and other methodologies as and when necessary in order to make adjustments to better support the ICAO performance framework in its planning and implementation activities aligned with the Aviation System Block Upgrades (ASBU).

Aeronautical Information and data assembly, exchange, and promulgation

a) NOTAM Proliferation in the AFI Region.
b) Change proposals to ICAO AIS Provisions on NOTAM Distribution.

2.12 The ATM/AIM/SAR/SG/14 was informed that the current system of NOTAM is not sustainable for the long term in its current form and function since there are a multitude of information channels which must be integrated by the user to acquire awareness flight–critical conditions. Increasingly this is failing to take advantage of modern information management techniques and failing to provide optimum situational awareness i.e.: a system designed for teletype distribution is not optimized for graphical display or integration with other information; the NOTAM system will need to evolve under the emerging SWIM concepts; and the current NOTAM system does not allow for critical updates to the FMS data.

Global/Regional developments related to AIM and SWIM

2.13 The Sub Group noted the information provided on the development of Amendment 38 to Annex 15, PANS-AIM Document, AIS Manual, and follow-up on Global AIS/AIM developments that are ongoing within framework of the ICAO AIS-AIMSG at: http://www2.icao.int/en/ais-aimsg/.

2.14 The Twelfth meeting of the Aeronautical Information Services to Aeronautical Information Management Study Group (AIS-AIMSG/12) was held in Montréal, Canada, from 19 to 23 October 2015. A list of study notes, information papers, presentations and flimsies issued for the meeting are available on the AIM website at http://www.icao.int/safety/ais-aimsg/Lists/Meetings/AllItems.aspx

2.15 The AIS-AIMSG/12 meeting was informed of the significance of the meeting, being the last intended meeting of the AIS to AIM Study Group. The objective of this meeting was to reach a closure on the amendment proposals that still had outstanding comments with the intention that a mature proposal for a restructured Annex 15 and proposed new PANS-AIM would be delivered to the Secretariat as the final product of the AIS-AIMSG.

3. ACTION BY THE MEETING

3.1 The APIRG is invited to:

a) Note the information provided in this paper; and

b) Endorse the draft AIM related Conclusions formulated by the ATM/AIM/SAR Sub-Group.

APPENDIX – WP/9

DRAFT CONCLUSIONS AND RECOMMENDATIONS OF THE AIM TF MEETING HELD IN DAKAR: 15-17 OCT 2014				
DRAFT CONCLUSIONS		**SUGGESTED FOLLOW-UP ACTION**		
		ICAO	**STATES**	**RMKS**
1	**Common Understanding on ANC 12 Rec. 3/8 (c).**			
	That States to note, the AFI-CAD concept of implementing Centralized AIS databases adequately meets the ANC 12 Rec.3/8(c)	Make Follow up	Note and Agree	
2	**Inter-operable Systems and Data**			
	To ensure compatibility of the various versions of AIXM databases (AIXM 4.5, AIXM 5.1), integration of the different aeronautical data domains (MET, ATM, etc.) and in the interest of facilitating a system wide information management (SWIM), the implementation of ASBU B0-DAIM element on AIXM in the AFI region should be well coordinated.	Coordinate	Undertake Action	
3	**NOTAM Proliferation**			
3/1	Based on NOTAM survey and feedback from AIM Task Force, the problem of NOTAM proliferation is not prominent in the AFI region. The proposal to change the NOTAM identification field from the current four digits to five digits will therefore result to high cost investments in NOTAM system upgrades with no direct benefit to the AFI region. Concerned regions should therefore be compelled to fully adhere to the requirements of Annex 15 and or establish other cost effective means such as those covered under Recommendation 8 hereto.		Note and Agree	
4	**Planning and implementation of AIM**			
	That States ensure that the planning and implementation of AIM in the region, is coherent and compatible with the developments in adjacent regions, and that it is carried out within the framework of the ATM Operational Concept, the Global Air Navigation Plan.			

APPENDIX TO WP/9

RECOMMENDATIONS		SUGGESTED FOLLOW-UP ACTION		
		ICAO	STATES	RMKS
	AIM Personnel Certification in the AFI Region			
2/1	Develop AIS/AIM competency standards and monitoring mechanisms to ensure competency of AIM personnel through initial and periodic assessments as per ICAO Annex 15 para 3.7.4 requirement.	Coordinate and evaluate adequacy	Action required	**A Sub WG** *Leader : Kenya Members : Nigeria, South Africa, Zimbabwe*
	Availability of AIM guidance Materials		Action required	
3/1	Make use of the AIM guidance materials developed by the AIS-AIM SG as early editions ahead of official approval by the ANC/Council.	Avail guidance materials	Action required	
	Monitoring Transition from AIS-AIM			
4/1	Maintain AIS-AIM implementation status through regular updates to the regional offices in Dakar and Nairobi or directly onto the website.	Coordinate	Action required	
4/2	ESAF and WACAF region offices establish a mechanism to ensure correctness of the Status implementation reports from States.	Undertake Action	Note	
4/3	Establish a common understanding on the requirement of each of the 21 steps in the roadmap.	Coordinate for Action	Action required	A Sub WG Leader: South Africa, Nigeria, Angola, ASECNA, Kenya
4/4	Identify and make follow up on individual letters to States that are behind implementation schedule.	Undertake Action	Note	
4/5	ICAO to consider the services of a regional AIM officer within the ESAF region to enhance the transition from AIS-AIM as highlighted in the ICAO global Air Navigation report 2014.	Undertake Action	Action required	
	ASBU B0-DAIM			
5/1	Align National AIM implementation plans with the AFI Region Air Navigation Strategy objectives/priorities and performance targets related to AIM as per Appendix---.	Monitor	Action required	
5/2	Consider adopting a new ANRF for implementing and monitoring AIM training.	Note	Action required	
5/3	That States ensure for each ASBU B0-DAIM elements, at a minimum: a) identifies the operational benefit; b) determine the necessary procedures; c) nominate the required technology; d) develop the business case; and e) Propose a preliminary strategy for regulatory approval.			
	AIM Training			
6/1	Conduct AIM Training by making better use of forums, symposiums, workshops, meetings, online training and other activities to support collaboration and harmonization of best practices and technology.	Coordinate	Note and Agree	Negotiated training on AIXM available for IFAIMA member States at various EAD training centres
6/2	Exchange of experiences from AFI States (ASECNA, Egypt, Kenya, and South Africa) where such databases have already been implemented through among others Familiarization visits.		Note and undertake action	

APPENDIX

	RECOMMENDATIONS	SUGGESTED FOLLOW-UP ACTION		
		ICAO	**STATES**	**RMKS**
	AFI-CAD Concept			
7/1	Adopt and support the AFI-CAD Concept expressed in the business plan with four proposed centralised AIS database centres: Dakar(WACAF), Kenya(EA), Southern African States (South Africa) and North Africa(?) .	Note and follow up	Note and Agree	
7/2	Ensure interoperability between the four centralised databases and that inter-operability tests during the implementation phase are carried out in accordance with V-Model test provided as appendix xxxx	Monitor	Action required	
7/3	Develop in consultation with the database hosts and participating states, service level agreements covering availability, data quality requirements, cost recovery aspects and other terms of engagement.	Coordinate	Action required	
7/4	States are encouraged to join the endorsed regional Databases as enablers for the transition from AIS-AIM to Support: e-AIP Production; charting production; NOTAM management and Integrated pre-flight briefing.	Coordinate	Note and agree	
7/5	AFI-CAD Regional Database Service Providers (Hosts) with support from Industry be committed to offer appropriate training to AIM personnel to develop and advance skills in order to collaborate and lead the change in their respective States.	Monitor	Note and undertake action.	
7/6	Transition from AIS-AIM in the AFI Region will benefit if a robust communication infrastructure exist, hence the need to develop guidance material that communicates the minimum infrastructure requirements both for the host and user states	Coordinate	Note and undertake action	
8	**NOTAM Proliferation**			
8/1	That States to note the two mechanisms to mitigate the effect of large volumes of NOTAM information as follows: a) The first is to control what is distributed which is accomplished by specifications to what must be disseminated by NOTAM, and specify what must not be disseminated. b) The second mitigation technique has been to improve the user's ability to parse relevant information through the use of the "NOTAM selection code.			
9	**Reporting of Deficiencies** a) Encourage States to adopt the APIRG approach on new guidance to reporting of deficiencies based on a reference for minimum reporting of SARPs requirements. b) Without prejudice to the definition of 'a deficiency' as approved by the Council, States, (Regulators and ANSPs), users (IATA, AFRAA, etc.), and professional organizations (IFALPA, IFATCA, IFATCA, etc.) c) in addition to reporting of any other deficiencies as defined by the Council.			
10	**Regulatory frame work to support SLA**			
	States are encouraged to develop regulatory framework to support SLA for data collection to ensure data integrity requirements are met.			