



INTERNATIONAL CIVIL AVIATION ORGANIZATION

FIRST MEETING OF THE AFI REGION AIM IMPLEMENTATION TASK FORCE

(Dakar, Senegal, 20 – 22nd July 2011)

Agenda Item 5 : Development of Performance goals for the transition from AIS to AIM in the AFI Region and identify achievable milestones.

(Presented by the Secretariat)

SUMMARY

This paper is an update on the implementation of the ICAO performance-based approach for the planning of air navigation services. In particular it is proposed to review the performance objectives for the AFI region in the AIM fields as established by the SP AFI RAN meeting in the relevant Performance Framework Forms (PFFs) and referred to APIRG.

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

REFERENCES:

SP AFI RAN Report

ATS/AIS/SAR SG/11 report

APIRG/17 report

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.

1. **DISCUSSION**

1.1 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 PFFs as lastly updated are shown at **Appendix A, B and C** to this paper.

3. **ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this working paper;
- b) consider the performance framework forms attached hereto, for review and update as necessary; and
- c) develop additional PFFs to meet any new performance objective identified for the AFI Region as necessary

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AIM PERFORMANCE OBJECTIVES (AIS-AIM Transition) Appendix-A

REGIONAL PERFORMANCE OBJECTIVES / NATIONAL PERFORMANCE OBJECTIVES TRANSITION FROM AIS TO AIM				
Benefits				
Environment Efficiency	<ul style="list-style-type: none"> . reductions in fuel consumption; . improved planning and management of flights; 			
Safety	<ul style="list-style-type: none"> . efficient use of airspace; . improved safety 			
KPI	Status of implementation of the AIRAC system in the AFI Region Status of implementation of QMS in the AFI Region Status of implementation of AIS Automation in the AFI Region			
Proposed Metrics AIS and data programmes AIM	Number of States complying with the AIRAC procedures Number of Posting of AIS information on the ICAO AFI Forum Number of States having developed and signed service Level Agreements between Originators Number of States having organized QMS awareness campaigns and training programmes Number of States having implemented QMS Number of States having developed eAIP Number of States having developed a National Plan for the transition from AIS to AIM			
Strategy <i>Short term (2010)</i> <i>Medium term (2011 – 2015)</i>				
ATM OC COMPONENTS	TASKS	TIMEFRAME START-END	RESPONSIBILITY	STATUS
AUO, ATM SDM	<ul style="list-style-type: none"> • Improve the compliance with the AIRAC system 	Ongoing	States & AFI AIMTF	Valid
	<ul style="list-style-type: none"> • Use of the internet, including the ICAO AFI Forum, for the advance posting of the aeronautical information considered of importance to users; 	2009 – 2011	States & ICAO	Valid
	<ul style="list-style-type: none"> • Signature of service Level Agreements between AIS and data originators; 	2009 – 2011	States	Valid
	<ul style="list-style-type: none"> • Foster the implementation of AFI QMS based on the AFI Region Methodology for the implementation of QMS ; 	2009 – 2011	ICAO & AFI AIMTF & States	Valid
	<ul style="list-style-type: none"> • Monitor the implementation of QMS until complete implementation of the requirements by all AFI States; 	2008 - 2013	ICAO & AFI AIMTF	Valid
	<ul style="list-style-type: none"> • Foster the development of eAIPs by AFI States; 	2009 - 2013	States & AFI AIMTF	Valid

	<ul style="list-style-type: none"> • Monitor the implementation of AIS automation in the AFI Region in order to ensure availability, sharing and management of electronic aeronautical information; 	2008 -2013	ICAO & AFI AIMTF	Valid
	<ul style="list-style-type: none"> • Foster the development of National/regional AIS databases; 	2010 – 2015	ICAO & AFI AIMTF & States	Valid
Linkage to GPIs	GPI-5: performance-based navigation; GPI-11: RNP and RNAV SIDs and STARs; GPI-18: Aeronautical Information			

Abbreviations used in the Global ATM Operational Concept:

AO	Aerodrome Operations
AOM	Airspace Organization and Management
ATM SDM	ATM Service Delivery Management
AUO	Air User Operations
CM	Conflict Management
DCB	Demand and Capacity Balancing
TS	Traffic Synchronization

AIM PERFORMANCE OBJECTIVES

NATIONAL PERFORMANCE OBJECTIVE - IMPLEMENTATION OF WGS-84 AND eTOD				
Benefits				
Environment	•	none		
Efficiency	•	WG8 -84 is a prerequisite for performance-based navigation, benefits described in performance objectives for PBN.		
	•	support approach and departure procedure design and implementation		
	•	improve aircraft operating limitations analysis		
Safety	•	support aeronautical chart production and on-board databases		
	•	improve situational awareness		
	•	support determination of emergency contingency procedures		
	•	support technologies such as ground proximity and minimum safe altitude warning systems		
	•	see benefits described in performance objectives for PBN		
Strategy				
<i>Short term (2010)</i>				
<i>Medium term (2011 - 2015)</i>				
ATM OC COMPONENTS	TASKS	TIMEFRAME START-END	RESPONSIBILITY	STATUS
ATM CM	<p><i>Electronic terrain and obstacle data (eTOD)</i></p> <ul style="list-style-type: none"> share experience and resources in the implementation of eTOD through the establishment of an eTOD working group report requirements and monitor implementation status of Etod using a new AIS Table of the AFI FASID (Ref. Appendix B) develop a high level policy for the management of a national eTOD programme 	<p>2008-2011</p> <p>2008-ongoing</p> <p>2008-20092011</p>	<p>APIRG States</p> <p>APIRG States</p> <p>States</p>	<p>e-TOD WG has been established</p> <p>APIRG/17 for amendment of FASID</p> <p>APIRG/17 for endorsement of e-TOD WG proposals</p>
ATM AUO	<p>WGS-84</p> <ul style="list-style-type: none"> establish WGS-84 implementation goals in coordination with the national PBN implementation plan report requirements and monitor implementation status of WGS-84 using the AIS-5 Table of the AFI FASID and take remedial action if required 	<p>2008-20092011</p> <p>Ongoing</p>	<p>States</p> <p>APIRG States</p>	<p>APIRG/17</p> <p>RO AIS/MAP executed a region implementation survey</p>
Linkage to GPIs	GPI-5: Performance-based navigation; GPI-9: Situational awareness; GPI-11: RNP and RNAV SIDs and STARs; GPI-18: Aeronautical Information; GPI-20: WGS-84; GPI-21: Navigation systems			

AIS/MAP PERFORMANCE OBJECTIVES

ELIMINATION OF IDENTIFIED AIS/MAP DEFICIENCIES				
(implementation of WGS-84 coordinates, publication of aeronautical charts and timely publication and updating of AIS/MAP documents, i.e. NOTAMs, AIPs, AICs, etc.)				
Benefits				
Efficiency	<ul style="list-style-type: none"> improved collaborative decision-making through sharing aeronautical data information 			
Safety	<ul style="list-style-type: none"> enhance safety by timely exchange air safety data, i.e. electronically and wider distribution of such data 			
<i>Strategy</i> <i>Short term (2010)</i> <i>Medium term (2011 - 2015)</i>				
ATM OC COMPONENTS	TASKS	TIMEFRAME START-END	RESPONSIBILITY	STATUS
AIS/MAP	<ul style="list-style-type: none"> publication of relevant aeronautical charts. 	2008 - 2009 2011	States/ANSPs	Survey for APIRG/17
	<ul style="list-style-type: none"> publication of WGS-84 coordinates for en-route waypoints and use for GNSS coordinates for terminal approaches and departure procedures 	2008 - 2009 2011	States/ANSPs	Survey for APIRG/17
	<ul style="list-style-type: none"> publication of AIPs, NOTAMs and AICs using standards formats. 		States/ANSPs	
	<ul style="list-style-type: none"> States concerned to develop action plan to eliminate the deficiencies 	2008 - 2009 2011	States/ANSPs	Survey for APIRG/17
Linkage to GPIs	GPI/18: Aeronautical information; GPI/20: WGS-84			