International Civil Aviation Organization

WORKING PAPER

A37-WP/158[1]
TE/87
24/09/10
(Information paper)
English and French only

ASSEMBLY — 37TH SESSION

TECHNICAL COMMISSION

Agenda Item 39: Transition from Aeronautical Information Services (AIS) to Aeronautical Information Management (AIM)

ASECNA TRANSITION FROM AERONAUTICAL INFORMATION SERVICES (AIS) TO AERONAUTICAL INFORMATION MANAGEMENT (AIM)

(Presented by the Agency for Air Navigation Safety in Africa and Madagascar (ASECNA))

EXECUTIVE SUMMARY	
This purpose of this paper is to describe ASECNA activities coming within framework of the transition from aeronautical information services (AIS) to aeronautical information management (AIM).	
Strategic Objectives:	This working paper relates to Strategic Objective D: Efficiency – *Enhance the efficiency of aviation operations*
Financial implications:	Not applicable.
References:	Annex 15 — *Aeronautical Information Services* Doc 9906 — *Quality Assurance Manual for Flight Procedure Design*

[1] English and French versions provided by ASECNA

1. INTRODUCTION

1.1 The Agency for Air Navigation Safety in Africa and Madagascar (ASECNA) is an air navigation service provider (ANSP) which manages the State members airspace covering about 16 millions of km^2. In this way, ASECNA provides to air men aeronautical information services (AIS) in these States.

1.2 With the adoption of the global ATM concept and the progressive implementation of the communications, navigation, and surveillance (CNS) means, the air-traffic management systems are becoming increasingly dependent on aeronautical data which must be reliable, available on time and at the right place.

1.3 This evolution encouraged ICAO to adopt the concept of aeronautical information management (AIM). The air navigation commission (ANC) approved, on 10 March 2009, the *Roadmap for the Transition from AIS to AIM* manual.

1.4 As in the international community, ASECNA is preparing for the transition to AIM by planning several actions. These actions are described below.

2. OBJECTIVES OF ASECNA TRANSITION FROM AIS TO AIM

2.1 The main objectives of ASECNA transition are:

1) the implementation of a centralized aeronautical database able to ensure the reliability, the integrity and the availability on time of the data;

2) the compatibility and easy exchange of data with the other databases;

3) the coherent automation of the main functions for the production of the different elements of the integrated aeronautical information package; and

4) the facilitation of the interoperability with meteorological products and the flight plan management system.

2.2 That is how the agency wrote down in its plan of the services and equipments (PSE) 2009 to 2013, different projects taking into account the main aspects of this transition. Then, some programs are developing and being implemented

3. PROGRAMS IN PROGRESS

3.1 **Conception and realization of the database:** The database will be conceived in accordance with the aeronautical information conceptual model (AICM)/aeronautical information exchange model (AIXM) built by the ICAO (N°36 amendment of the annex 15). This programme is subdivided into two phases:

- **Stage 1:** Installation of the static database and automation of the AIP functions and cartographic (2010-2011). ASECNA has already assigned a market for the stage 1

especially “the supply of equipment and system of management of an automatic data base AIXM and the automation of the AIS/NOF/ARO/briefing Offices”.

- **Stage 2:** Installation of the dynamic database and automation of the NOTAM functions, PIB (Pre-flight information bulletin) and Flight Plans (2011-2013).

3.2 **Exchange with other databases:** In order to facilitate its integration to the world network, ASECNA database will be in compliance with the international standards permitting exchanges with other operators. For that purpose, agreements of exchange could be established with EUROCONTROL and the AFICAD Group.

3.3 **Staff training:** Training modules on the management of the aeronautical data will be implemented at EAMAC (African Civil aviation and Meteorological Training Center) in order to let the AIS personnel have the tools allowing them to face the new challenges of AIM.

3.4 **AIM Quality Management (SMQ-AIS):** The implementation of an AIS quality management system is a Standard (Annex 15, Chapter 3.2.1) and ISO certification is recommended (Annex 15, Chapter 3, paragraph 3.2.2). For that purpose, ASECNA buckles firmly to set in motion the different AIS QMS tools. The initial audits of the structures of the agency already took place in 2010 and the development of the different processes and procedures should end in 2010 to get to an International Organization for Standardization (ISO) certification in 2011.

3.5 **Implementation of the electronic terrain and obstacle data (eTOD):** Studies are in progress on the realization of works concerning the different zones specified by ICAO, taking into account Annex 15, Amendment 36. These works are in the PSE 2009-2010.

3.6 **WGS84 point’s maintenance and extension:** WGS84 network maintenance and extension works are foreseen in the PSE and has been started.

4. ASECNA ROADMAP FOR THE TRANSITION FROM AIS TO AIM

4.1 The different programs foreseen in the ASECNA transition plan are consistent with the ICAO roadmap for AIS/AIM transition. The elements of non registered transition on the present PSE and the future arrangements of the ICAO will be taken into account in the future plan PSE 2014-2018.

4.2 This planning permitted ASECNA to establish its own roadmap for the transition from AIS to AIM (ref. to Appendix A).

5. CONCLUSION

5.1 The meeting is invited to take note of ASECNA activities coming within framework of the transition from aeronautical information services (AIS) to aeronautical information management (AIM).

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APPENDIX A

ASECNA ROADMAP FOR AIS/AIM TRANSITION

ICAO Stages	Objectives	ASECNA Plan Stage		
		I 2010-2011	II 2010-2013	III 2014-2018
I Consolidation	Quality requirement	X	X	
	AIRAC conformity	X		
	Implementation of the WGS 84	X	X	
	eTOD		X	
	SARPs for the existing products	X		X
II Digitalisation	Implementation of databases	X	X	
	New products (eAIP, GIS)	X	X	
III Information management	New services			X
	Future ATM new data			X

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APPENDIX B

ABREVIATIONS/ACRONYMS

AICM: Aeronautical information conceptual model

AIM: Aeronautical information management

AIP: Aeronautical information publication

AIRAC: Aeronautical information regulation and control

AIS: Aeronautical information service

AIXM: Aeronautical information exchange model

ATM: Air traffic management

EUROCONTROL: European Organisation for the Safety of Air Navigation

GPI: Global plan initiative

IM: Information management

IP: Internet protocol

PIB: Pre-flight information bulletin

RNAV: Area navigation

RNP: Required navigation performance

SARPs: Standards and Recommended Practices

WGS-84: World geodetic system-1984

SIA: Aeronautical Information Service

BNI: Bureau NOTAM international

BIA: Aeronautical Information Office

BDP: local office

AFICAD: AFI centralised aeronautical Data

GIS: Geographic Information System

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