



Agenda Item 6: Other business

Preparation for the implementation of Phase 2 for the transition from AIS to AIM

(Presented by the Secretariat)

SUMMARY	
This working paper proposes the beginning towards the preparation of Phase 2 for the transition from AIS to AIM.	
References:	
<ul style="list-style-type: none">• Annex 15 to the Convention on International Civil Aviation• AIS-AIM Roadmap• SAM/AIM Multilateral Meetings.	
ICAO Strategic Objectives:	<i>A - Safety</i> <i>B – Air navigation capacity and efficiency</i> <i>E – Environmental protection</i>

1 Background

1.1 With the completion of Phase 1, some States have to face the preparation of Phase 2 in the transitioning from AIS to AIM. Having fulfilled the stage of quality certification in the AIM processes, those States are now mature enough to begin with the preparatory works towards the implementation of Phase 2.

2 Discussion

2.1 Performance measurement is an integral aspect of aviation's pursuit for continuous improvement. Measuring performance not only provides an idea of how the entire aviation system is behaving, but it also offers a feedback mechanism for future tactical adjustments or action plans towards the targets contained in the ICAO Global Safety and Air Navigation Plans.

2.2 Reporting on a global scale is intrinsically complex but serves to develop consensus on the status of global initiatives, allowing for direct feedback on the implementation of the Global Plans. Measuring performance at the regional level is just as important however, as it allows for a more in-depth look at how local approaches and variations affect each safety and air navigation environment. This type of feedback is key to how ICAO's regional offices prioritize their resources and work programmes towards desired operational results.

2.3 The ICAO Air Navigation Report therefore consists of qualitative and quantitative data and analysis and addresses relevant air navigation system performance areas. The second 2015 edition provides the status of operational measures for performance improvement and related implementation progress, in accordance with State operational requirements and selected Block 0 priority modules.

2.4 The Block 0 focuses on air navigation priorities stressed in the Fourth Edition GANP such as Performance-based Navigation (PBN), Continuous Descent Operations (CDO), Continuous Climb Operations (CCO), Aeronautical Information Management (AIM), Air Traffic Flow Management (ATFM) and estimated environmental benefits accrued from operational improvements based on the ICAO Fuel Savings Estimation Tool (IFSET).

2.5 The current roadmap for transitioning from AIS to AIM is intended to serve as a strategic positioning initiative to facilitate the continuing improvement of aeronautical information services in terms of quality, timeliness and the identification of new services and products to better serve aeronautical users. It sets a baseline for establishing strategies and other initiatives to advance the AIM objectives globally and should place the future AIM in a position to better serve airspace users and ATM in terms of their information management requirements.

2.6 The transition roadmap has been developed with an intended implementation horizon of 2016. Consequently, the activities associated with the current roadmap fall short of a full AIM capability, but provide a path to digital provision of current AIS products and services. The articulation of a new roadmap is deemed necessary and should not represent a change in direction but serve as an extension to the existing roadmap. In this connection, the current roadmap serves as the evolutionary beginning of an eventual full transition to an AIM service that is fully integrated with other ATM services and functions.

2.7 With this in mind, the existing roadmap provides a fundamental pre-requisite for the ordered transition to an AIM environment. It supports and facilitates the generation and distribution of aeronautical information in digital form, provides a foundation for measuring performance and outcomes, assists States in implementation and uses an evolutionary approach building on the work of States, Organizations, and industry. The further development of the roadmap will be guided by the Global Air Navigation Plan and Global ATM Operational Concept.

2.8 Through the support of the ICAO Regional Offices, surveys are conducted to acquire information on the transition status from AIS to AIM at a global level. The survey's results will highlight the progress done by the States and the challenges faced during the implementation.

2.9 In the next paragraphs two Performance indicators are described; the indicators are defined and composed of metrics which provide a quantifiable measure of the status of the transition from an AIS to an AIM environment. The metrics are based on some of the transition roadmap steps, which have been discussed and agreed with the support of the ICAO Regional Offices.

INDICATOR I: The State's organization Level of automation and Aeronautical Information Databases Implementation.

The level of automation within a State organization and the Aeronautical Information Databases Implementation can be measured taking into account the following steps of the AIS to AIM Transition Roadmap:

- a) P-06 - Integrated aeronautical information database; **and**
P-08 - Aeronautical Information conceptual model
- b) P-11 Electronic AIP

- c) P-13 - Terrain
- d) P-14 - Obstacle
- e) P-05 - WGS-84 implementation

Steps P06 and P08 can be aggregated into a unique measurement, due to their similarity.

INDICATOR II: The Level of implementation of aeronautical data quality

The level of implementation of aeronautical data quality could be measured through the following steps of the AIS to AIM Transition Roadmap:

- a) P-17 - Quality Management System
- b) P-03 - AIRAC adherence
- c) P-18 - Agreement with data originators

Survey proposal for monitoring the implementation

INDICATOR I: THE STATE’S ORGANIZATION LEVEL OF AUTOMATION AND AERONAUTICAL INFORMATION DATABASES IMPLEMENTATION.

- 1. P-06 - Integrated aeronautical information database /
P-08- Aeronautical Information conceptual model

QUESTION	IMPLEMENTATION/COMPLIANCE CRITERIA	POSSIBLE ANSWERS
Has the AIS implemented an AIXM-based AIS Database?	National aeronautical data and information is stored and maintained in AIXM-based AIS database.	FI/NI

- 2. P-11- Electronic AIP

QUESTION	IMPLEMENTATION/COMPLIANCE CRITERIA	POSSIBLE ANSWERS
Has the State been publishing its AIP in electronic format (xml, etc.)?	National AIP GEN 3.1.3 ‘Aeronautical publications’ provides information about the availability of the National AIP in electronic format (eAIP) <i>N.B. AIP in PDF, HTML, etc. either on web or CD-ROM is not considered as eAIP.</i>	FI/NI

- 3. P-13 - Terrain:

QUESTION	IMPLEMENTATION/COMPLIANCE CRITERIA	POSSIBLE ANSWERS
Has the AIS made available Terrain dataset for Area 1?	National AIP GEN 3.1.6 ‘Electronic terrain and obstacle’ provides information on how the dataset can be obtained	FC/NC

Has the AIS made available Terrain dataset(s) for Area 4?	National AIP GEN 3.1.6 'Electronic terrain and obstacle' provides information on how the dataset for specific CAT II/III RWY can be obtained. States should indicate in remarks the number of existing CAT II/III RWY. N/A for States with no CAT II/III RWY.	FC/PC/NC
--	---	----------

4. P-14 - Obstacles:

QUESTION	IMPLEMENTATION/COMPLIANCE CRITERIA	POSSIBLE ANSWERS
Has the AIS made available Obstacle dataset for Area 1?	National AIP GEN 3.1.6 'Electronic terrain and obstacle provides information on how the dataset can be obtained	FC/NC
Has the AIS made available Obstacle dataset(s) for Area 4?	National AIP GEN 3.1.6 'Electronic terrain and obstacle data' provides information on how the dataset for specific CAT II/III RWY can be obtained. States should indicate in remarks the number of existing CAT II/III RWY. N/A for States with no CAT II/III RWY.	FC/PC/NC

5. P-05 - WGS-84 implementation

QUESTION	IMPLEMENTATION/COMPLIANCE CRITERIA	POSSIBLE ANSWERS
Are all the coordinates published in AIP based on WGS-84?	FC: All coordinates related to FIR/ENR, Terminal and AD are based on WGS-84 and GUNDS are published for all ADs. PC: part(s) of FC is covered. NC: none of FC is covered.	FC/PC/NC

INDICATOR II: THE LEVEL OF IMPLEMENTATION OF AERONAUTICAL DATA QUALITY

6. P-17 - Quality Management System

QUESTION	IMPLEMENTATION/COMPLIANCE CRITERIA	POSSIBLE ANSWERS
Has the AIS organization implemented and does the AIS organization maintain a Quality Management System encompassing all functions of an aeronautical information service?	ISO 9001 certification	FC/NC

7. P-03 - AIRAC adherence

QUESTION	IMPLEMENTATION/COMPLIANCE CRITERIA	POSSIBLE ANSWERS
Has Operationally significant changes to the AIP been published in accordance with AIRAC procedures?	Issuing AIRAC amendments in accordance with AIRAC dates Issuing Trigger NOTAM(s) Issuing AIRAC NIL notification(s)	FC/NC

8. P-18 - Agreement with data originators

QUESTION	IMPLEMENTATION/COMPLIANCE CRITERIA	POSSIBLE ANSWERS
Have formal agreements been established between the aeronautical information service (AIS) unit and the data originator authorities for the provision of AIS services?	FC: formal agreements have been established between AIS and all a)ANS providers; b)Aerodromes; and c) Military PC: part(s) of FC is covered. NC: none of FC is covered.	FI/PI/NI

*FC: Fully Compliant; PC: Partially Compliant; NC: Not Implemented (used for Annex 15 standards)
FI: Fully Implemented; PI: Partially Implemented; NI: Not Compliant (used for other than standards)*

3 **Suggested action:**

3.1 The Meeting is invited to analyse the survey proposal according to the model submitted above, to monitor States of the Region in order to measure its degree of preparation.