International Civil Aviation Organization

MIDANPIRG AIM Task Force

Seventh Meeting (AIM TF/7)
(Cairo, 25 – 27 September 2012)

Agenda Item 4: Performance Framework for AIM implementation in the MID Region

NATIONAL PLANS FOR THE TRANSITION FROM AIS TO AIM

(Presented by the Secretariat)

SUMMARY

The aim of this paper is to re-iterate the need for the development of national plans for the transition from AIS to AIM and to review the progress made towards the implementation of AIM in the MID Region.

Action by the meeting is at paragraph 3.

REFERENCES

- AIS/MAP TF/6 Report
- MIDANPIRG/13 Report
- SL Ref.: AN 8/4 – 11/091 dated 14 April 2011

1. **INTRODUCTION**

1.1   The MIDANPIRG/13 meeting recalled that MIDANPIRG through Conclusion 12/34 urged MID States that have not yet done so, to develop national plans for the transition from AIS to AIM.

2. **DISCUSSION**

2.1   The meeting may wish to note that the most important change to move from AIS to AIM is the transition from a product-centered service to the provision and management of data in an interoperable form sufficient for end use. The shift from standardizing products to standardizing data will enable more freedom in the definition of future products while maintaining a high degree of quality, integrity and coherence of the information contained in these new products. The biggest change in the transition to AIM will be the increasing use of computer technologies in the management of information. This will be materialized by an increased emphasis on the digital form of data that will drive all processes for the management of information.

2.2   By using this approach, the definition of the data products is decoupled from definition of the usage for the end products. The end-user applications which make use of the information transferred in the form of data sets do not rely exclusively on the structure and format of the messages, but are free to transform the data and combine it with other data to construct the final view appropriate for the end user.

2.3   Though the transition from a product-centric (current AIS) to a data centric (AIM) service is essential, it is foreseen that AIM will still have to cater for the provision of traditional AIS products during the transition phase.

2.4   The AIM concept requires that all aeronautical information, including that currently held in aeronautical information publications (AIP), be stored as individual standardized data sets to be accessed by user applications. The distribution of these data sets will define the new services provided by the future AIM. This will constitute the future Integrated Aeronautical Information Package that will contain the minimum regulatory requirement to ensure the flow of information necessary for the safety, regularity and efficiency of international air navigation.

2.5   The future capabilities of transferring digital data between the air and the ground will be used for providing new products such as In-flight information bulletins by uploading aeronautical and meteorological information directly aboard the aircraft at all phases of flight.

2.6   The meeting may wish to note that the ICAO Roadmap for the transition from AIS to AIM identifies the major milestones towards a uniform global evolution to AIM and indicates specific steps and timelines for implementation. It should support regional and national plans to implement the transition to AIM. The Roadmap should be seen as a structured framework for States to plan and monitor their progress with reference to other States in the same Region and across Regions.

2.7   The meeting may wish to recall that three phases with 21 Steps are envisaged for States and ICAO to complete the transition to AIM:

Phase 1 — Consolidation (2009)
Phase 2 — Going digital (2009-2011)
Phase 3 — Information management (2011-2016)

2.8   The first phase concerns the refinement and strengthening of existing standards and their implementation in all States. This concerns mainly: quality requirements; AIRAC adherence and WGS-84 implementation. The projects in the first phase should be conducted to identify potential gaps in order to focus on near-term work programme activities.

2.9   During Phase 2 of the transition to AIM, the main focus will be on the establishment of data-driven processes for the production of the current products in all States. States that have not yet done so will be encouraged "to go digital" by using computer technology or digital communications and introducing structured digital data from databases into their production processes. The emphasis will, therefore, not be on the introduction of new products or services but will be on the introduction of highly structured databases and tools such as geographic information systems. An aeronautical information conceptual model will provide guidance for States to implement such digital databases.

2.10   During Phase 3, steps will be taken to enable future AIM functions in States to address the new requirements that will be needed to implement the Global Air Traffic Management Operational Concept in a net-centric information environment. The digital databases introduced in Phase 2 will be used for the transfer of information in the form of digital data. This will require the adoption of a Standard for an aeronautical data exchange model to ensure interoperability between all systems not only for the exchange of full aeronautical data sets, but also for short-term notification of changes.

2.11   The meeting may wish to note that as a follow-up action to the AIS/MAP TF/5 Draft Conclusion 5/9, and in reply to the MID Office State Letter Ref.: An 8/4.2-09/185 dated 10 June 2009, Bahrain, Iran, Kuwait, Oman, Qatar and Saudi Arabia, provided their National AIM Plan/Roadmap. Further to the AIS/MAP TF/6 Draft Conclusion 6/1, Bahrain, Egypt, Iran, Kuwait, Lebanon, Oman, Qatar and UAE replied to the questionnaire related to National Plans for the transition from AIS to AIM (State Letter Ref.: AN 8/4 – 11/091 dated 14 April 2011).

2.12   Based on the information provided by States, the following is to be highlighted:

- an important number of States have not yet developed/provided a National Plan for the transition from AIS to AIM, based on the ICAO Roadmap;

- the implementation of Phase 1 (consolidation) does not raise specific difficulties; however, some States will not complete the implementation of some steps from phase 1 before end of 2013 (especially P-17-Quality);

- the timescales for the implementation of phase 2 and phase 3 are not realistic. In the MID Region, the implementation of phase 2 and phase 3 could not be completed before 2016 and 2021, respectively;

- the majority of States that have replied to the questionnaire confirmed that they are encountering/expecting some difficulties during the transition from AIS to AIM, in particular:

    • tight timescales;

    • financial constraints ;

    • manpower availability, capacity, and knowledge (required expertise);

    • training of Staff: it will be a great challenge to organise, train and assess the involved staff for the future relevant tasks. One of the main problems is to develop the required competency for the involved experts preparing the implementation of the ICAO Roadmap;

    • lack of detailed ICAO guidance material; in particular an AIS-AIM Transition Manual with detailed description of steps to assist States in the implementation process;

    • necessity to amend the National Regulations to include AIM requirements;

    • awareness and commitment of data originators, and adoption of appropriate arrangements with all data originators;

    • electronic data exchange with all data originators; and

    • eTOD implementation.

- Some States have requested assistance from ICAO, especially for the:

    • development of appropriate AIM SARPs and guidance material to assist States in the transition from AIS to AIM;

    • organisation of special training courses, Seminars, Workshops and awareness campaigns related to AIM; and

    • development of standard AIM training courses.

2.13   In connection with the above, the meeting may wish to note that:

- a Joint IFAIMA-ICAO-EUROCONTROL event will be held in Istanbul, Turkey, 14-17 May 2013. The title of the event will be "IFAIMA Global AIM 2013 & ICAO EUR/MID AIM/SWIM Seminar";

- the Manual on Quality Management System for Aeronautical Information Services (Doc 9839) and the Aeronautical Information Management Training Development Manual (*Doc 9991*) will be available before the applicability date of Amendment 37 to Annex 15 (14 November 2013).

2.14   The meeting may wish to recall that MIDANPIRG/13 urged States that have not yet done so, to develop/update their National plans for the transition from AIS to AIM and provide updated information to the ICAO MID Regional Office, before **15 August 2012** for review by the AIM TF/7 meeting.

2.15   The meeting may wish to note that SWIM has emerged as a fundamental requirement with respect to the evolution of the Future Global ATM System and the development of a Global SWIM concept that suitably incorporates the basic requirements of SESAR, NextGen and other National/Regional programmes has become a priority. As a consequence, the development of an AIM Operational Concept that will move beyond the present AIS-AIM Roadmap target of "digital AIS products" to a more fully expressed and integrated information resource (the AIM domain being one of several) is becoming an urgent need. Such a concept should serve as a guide for the development of Amendment 38 to Annex 15 (by 2016) and ensure that AIM fits within a larger SWIM environment.

2.16   To keep pace with the new AIM/SWIM developments, States should develop/update their National Plans for the transition from AIS to AIM with a view to support seamless ATM in a SWIM environment.

3.   ACTION BY THE MEETING

3.1   The meeting is invited to:

a)   urge States that have not yet done so:

    i)   to develop/update National Plans for the transition from AIS to AIM, taking into consideration the latest AIM developments, including the outcome of the AN-Conf/12;

    ii)   to provide feedback to the ICAO MID Regional Office before 31 January 2013 for review by the ATM/SAR/AIS SG/13 meeting.

b)   explore ways and means to expedite the transition from AIS to AIM in the MID Region; and

c)   urge States to participate actively in the Joint IFAIMA-ICAO-EUROCONTROL AIM/SWIM event in May 2013.

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