



International Civil Aviation Organization

MIDANPIRG ATM/SAR/AIS Sub-Group

Twelfth Meeting (ATM/SAR/AIS SG/12)
(Cairo, Egypt, 21 – 24 November 2011)

Agenda Item 10: AIM Issues

AIM GLOBAL DEVELOPMENTS

(Presented by the Secretariat)

SUMMARY

The aim of this paper is to inform the meeting of the outcome of the fourth meeting of the Aeronautical Information Services-Aeronautical Information Management Study Group (AIS-AIMSG) and highlight the main AIM global developments.

Action by the meeting is at paragraph 3.

REFERENCES

- Summary of Discussion of the AIS-AIM SG/4 meeting

1. INTRODUCTION

1.1 The fourth meeting of the Aeronautical Information Services-Aeronautical Information Management Study Group (AIS-AIMSG/4) was held in Bordeaux, France, from 23 to 27 May 2011.

1.2 The AIS/MAP TF/6 meeting was apprised of the outcome of the AIS-AIM SG/4 meeting.

2. DISCUSSION

AIM Definition

2.1 The AIS-AIM SG/2 meeting (Montréal, Canada, 10-13 November 2009) observed that, during the consultative process with States concerning the *Roadmap for the Transition from AIS to AIM*, issues were raised regarding the definition of AIM and terms used in the Roadmap. The group agreed that definitions need to be included in both Annex 15 — *Aeronautical Information Services* and the Roadmap to better define the differences between aeronautical information service (AIS) and aeronautical information management (AIM), and to clearly define information management (IM) and system wide information management (SWIM) and their relationship to AIM. Furthermore, the group agreed that the terms “data”, “information”, “product”, and “service” needed to be further clarified in Annex 15. Accordingly, during the AIS-AIM SG/3, a number of definitions were agreed to by the Group in particular the definition of AIM:

Aeronautical information management (AIM) The dynamic, integrated management of aeronautical information services — safely, economically and efficiently — through the provision and exchange of quality-assured digital aeronautical data in collaboration with all parties. Source: AIS-AIM.

Development of Annex 15 Amendment 37 and 38

2.2 The AIS/AIM SG/4 meeting was presented with the work of the ad-hoc group on AIM development related to Amendment 37 to Annex 15. The meeting expressed its appreciation of the scope of work accomplished and progress of the work. The meeting was of view that Amendment 37 work would take precedence over further development of Amendment 38.

2.3 The meeting discussed in detail the proposed changes. The discussions highlighted the need to clarify the definition of “AIS product” and develop a definition for “AIS deliverables”. There was also considerable discussion on the use of the terms “static data” and “dynamic data” with the result that this would need to be further examined during AIM concept development. The aggregated Amendment 37 proposal in its current state is available also at: <http://www2.icao.int/en/ais-aimsg/Lists/Meetings/AllItems.aspx>, as Appendix D to the Summary of Discussion of the AIS-AIM SG/4 meeting.

2.4 The meeting may wish to note that this is still a work in progress.

AIM Roadmap, AIM Operational Concept and PANS-AIM

2.5 The AIS/AIM SG/4 meeting was apprised of ICAO activities and developments related Aviation System Block Upgrades (ASBU). The Group noted also that the development of ASBUs and implementation plans would also require an updated Roadmap for AIM development. It was highlighted in this regard that the Global Air Navigation Industry Symposium (GANIS) scheduled for later this year in September will provide the opportunity for industry to communicate their views on the emerging ATM systems and capabilities and that an updated AIM Roadmap will be required for presentation at that time.

2.6 The AIS/AIM SG/4 meeting recognized the gap that exists between the SARPs contained in Annex 15 and the guidance provided in the *Manual of Aeronautical Information Services*, Doc 8126. Annex 15 contains a significant amount of procedure and format specifications while the procedures and protocols contained in Doc 8126 are often needed for uniform application.

2.7 The group noted that the possibility of developing a *Procedures for Air Navigation Services* document (PANS-AIM) to span this gap has been outlined and discussed in a number of forums and there is emerging consensus as to the value and utility of such a document. The meeting agreed that the development of PANS-AIM would provide a core element of provisions to be published concurrently with Annex 15, Amendment 38.

2.8 The AIS-AIM SG expressed support for the development of an AIM Operational Concept that would provide a visionary statement for the expected development of AIM and form the basis of an updated Roadmap. The meeting was informed that the development of updated Roadmaps for Communications, Surveillance, Navigation, and AIM is planned for incorporation into the Global Air Navigation Plan (GANP) for global review at the 12th Air Navigation Conference.

eTOD

2.9 The AIS/AIM SG/4 meeting was presented with a proposal to amend Annex 15 Chapter 10 (eTOD), as being worked out by the EUROCAE WG44/RTCA SC217 group. The proposal aims to align Annex 14 & 15, simplify the collection of data, remove inconsistencies but also slightly increase the data collection requirements. The group was further informed that the ICAO Secretariat had started to review the EUROCONTROL TOD Manual with the objective to use it as a basis for updating Doc 9881.

2.10 Based on the above, the AIS/AIM SG/4 meeting agreed that the ICAO Secretariat review the proposal and provide comments by 15th August, 2011.

Airport Mapping Database (AMDB)

2.11 The AIS/AIM SG/4 meeting recalled previous discussions on the subject and the proposal to include AMDB into Annex 15 as a Recommendation with the further possibility to include also references in Annex 14.

2.12 The Group observed that the aircraft applications of AMDB demonstrated by Airbus illustrated how information could be assembled and fused for operational and situational awareness purposes and achieve an early demonstration of the application of System Wide Information Management (SWIM). The group concluded that the development and implementation of AMDB would have significant safety benefit and would be a prerequisite to deliver certain operational capabilities being envisioned as a result of the Global ATM Operational Concept. Nevertheless, the Group was apprised of a number of reservations on the subject expressed especially by the Aerodrome Experts.

2.13 After discussion the Group agreed to continue to support the initiative to include AMDB provisions in ICAO material.

Vertical Reference System

2.14 The AIS/AIM SG/4 meeting was apprised of the EUROCONTROL guidance material related to heighting issues and expressed its appreciation for it. It noted that the specification identifies a number of methods by which the heighting requirements of ICAO Annex 15 can be met and that no single method is appropriate to all States and that regional reference systems will always exist. It requested the ICAO secretariat to consider updating Doc 9674 based on the provided guidance material.

Use of automation and digital NOTAM

2.15 With the overall objective of improved timeliness, quality, efficiency and cost-effectiveness, it was agreed to propose standards for the automation and digital data exchange based upon performance requirements throughout the data chain. It was also agreed to include a standard ensuring consistent data delivery through printed and electronic media. A recommendation was agreed to enable the availability of the whole IAIP in electronic format. Furthermore, it was agreed to postpone any reference to digital NOTAM until Annex 15 Amendment 38.

NOTAM/SNOWTAM/ASHTAM

2.16 The AIS/AIM SG/4 meeting noted the ongoing investigations/developments related to the NOTAM Selection Criteria Tables in Doc 8126, SNOWTAM Template and Volcanic Ash NOTAM Template.

Integrated Briefing

2.17 The AIS/AIM SG/4 meeting noted that integrated briefing would be an important component of further service delivery and agreed that it should be further considered in the development of the AIM operational concept and in particular its relationship to SWIM. In this context the group was informed that SESAR has a project on digital briefing and could expect a briefing on this subject at the AIS/AIM SG/5 meeting.

2.18 The group noted that there was still a gap in determining the user requirement from the perspective of what the AIS/AIM service role should be as compared to what is expected to be provided by 3rd part service providers. This information is considered extremely relevant in order to consider how to deal with the pre-flight information bulletin (PIB) component of the IAIP. Accordingly, the meeting agreed that the ad-hoc group on AIM development consider the future utility and need of the integrated aeronautical information package (IAIP) and in particular, the PIB, in developing the AIM Operational Concept and AIM Roadmap.

System Wide Information Management (SWIM)

2.19 The AIS/AIM SG/4 meeting was apprised of the SESAR SWIM developments including the Information Management, SWIM Infrastructure, ATM information Reference Model, the Information Service Reference Model, and the registry. The group was informed that a high level agreement had been reached between the FAA and the European Union on a closer cooperation on NextGen/SESAR activities including SWIM.

2.20 It was discussed that it would be good to stay aware of the SWIM developments and the possible impact on AIM especially in consideration of developing revised provisions earmarks for Amendment38.

2.21 The meeting underlined that SWIM is an area that should assume some priority and that for meaningful consensus on a SWIM definition, SWIM regional activities and desired outcomes to be reached at the 12th Air Navigation Conference, a coordinated SWIM concept would be needed as a matter of priority.

MET Integration

2.22 The AIS/AIM SG/4 meeting was informed of the ongoing initiatives to change Annex 3 along the lines of Annex 15 Amendment 37 and 38 changes and the proposal to develop a PANS-MET document.

AIM Quality Manual

2.23 The AIS/AIM SG/4 meeting was informed that the AIM Quality Manual had entered the ICAO editorial process and the expectation was that the manual would be available for publication in the second half of the year.

Data integrity

2.24 The AIS/AIM SG/4 meeting recalled the earlier agreement during AIS-AIM SG/3 that in the development of Amendment 37 to Annex 15, the numerical integrity values should be removed from SARPs material and consequential changes to other Annexes and the WGS-84 Manual have been identified.

AIM Training Development Manual

2.25 The AIS/AIM SG/4 meeting considered the progress on the development of training guidance material. The group expressed its appreciation for the work performed to date and agreed with the proposed structure and content of the draft document. The group adopted the proposal that the material be referred to as the AIM Training Development Manual. It further requested the ad-hoc group to continue the work and to plan to finish the work by the next AIS-AIM SG meeting, whilst considering seeking the expertise input from some aviation training institutes.

2.26 It was observed however that the matter of AIM training was of imperative interest to a number of States and Regions and that the evolving AIM Training Development Manual may not meet the detail desired by certain organizations for specific guidance. It was noted by the group that guidance in the form of a document may not be sufficient to meet those more specific needs which may also include guidance on AIM development and implementation.

AIS/AIM SG Terms of Reference and Future Work Programme

2.27 The AIS/AIM SG/4 meeting noted that the existing Terms of Reference (TOR) of the Study Group envisioned completion of its work in 2012. In recognition of the ANConf/12, the time to develop Amendment 38 and the new work on PANS-AIM, the AIM operational Concept and the AIM Roadmap, it was considered that this date is no longer realistic. Consequently the Group requested the Secretary to have the TOR amended to include the deliverables planned up to Amendment 38, a meeting frequency of twice a year, and a planned completion date in 2016.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) take into consideration the global AIM developments during the discussion of the progress made towards AIM implementation in the MID Region.

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