



**Agenda Item 3: Regional air navigation planning and implementation issues**

**3.5 Report of the AIM/SG/11 Meeting**

(Presented by the Secretariat)

**SUMMARY**

This paper summarises the discussions held at the Eleventh meeting of the AIM Subgroup (AIM/SG/11). The Subgroup formulated draft conclusions that require some action by the GREPECAS/15 Meeting.

**References:**

- Report of the AIM/SG/11 meeting (Bogotá, Colombia, 16 to 20 June 2008);
- Doc. 8733 – *CAR/SAM Regional Air Navigation Plan*;
- Report of the GREPECAS/14 meeting (San Jose, Costa Rica, 16 to 20 April 2007);
- GREPECAS Procedural Handbook.

**1. Introduction**

1.1 The Eleventh meeting of the Aeronautical Information Management Subgroup (AIM/SG/11) was held in Bogotá, Colombia, from 16 to 20 June 2008, with the participation of 47 delegates from 16 member States of the Subgroup, 1 representative from a United States agency (NGA), 4 International Organizations (COCESNA, IATA, ALTA, and CNAC) as observers, and 2 service providers (JEPPESEN and IDS). The Subgroup approved a report on the topics discussed, as well as 9 draft conclusions, which are submitted to the consideration of the GREPECAS/15 Meeting.

**2. Review of the Eleventh Meeting of the AIM Subgroup**

**2.1 Review of action taken by higher bodies regarding the AIM Subgroup**

2.1.1 The meeting reviewed and updated the list of GREPECAS conclusions and decisions in the AIM field (AIS/MAP), in order to submit it to the consideration of GREPECAS/15, based on the action taken by the Air Navigation Commission with respect to the reports of the GREPECAS/12, GREPECAS/13, and GREPECAS/14 meetings and outstanding AIM conclusions. In this regard, it left as **Valid** only those that had not expired, those that would be the subject of further work, and/or were being acted upon by the contributory bodies of the Subgroup. It should be noted that, while reviewing these conclusions, the Subgroup agreed to update some of them.

2.1.2 When reviewing the action taken by GREPECAS/14 on the report of the AIS/MAP/SG/10 meeting, it was noted that, after examining the list of outstanding conclusions to be

submitted to GREPECAS/15, the meeting had deemed it advisable to update it based on that stated in **Appendix A** to this working paper. On the other hand, regarding the action taken by the Air Navigation Commission on the report of the GREPECAS/14 meeting with respect to the action taken by the AIS/MAP/SG/10 meeting, the Meeting took note of a summary of the action taken by GREPECAS/14 and the revision of said report by the ANC for the corresponding follow-up by the Subgroup. In this sense, the ANC Working Group on Regional Plans (ANC RPL/WG) examined the report of the GREPECAS/14 meeting and the conclusions and decisions that could require some action by the Commission and/or the Council, including those that could have repercussions on other Regions. However, at the time of the AIM/SG/11 meeting, the Air Navigation Commission had not submitted the GREPECAS/14 report to the Council.

2.1.3 A very important issue that was discussed was the transition of AIS/MAP to the new aeronautical information management (AIM) concept, which establishes various stages for controlling aeronautical information/data, from its origin, going through storage, recovery, exchange, and delivery of digital aeronautical information (AIM) within the context of gate-to-gate flight operations, taking into account pre-flight, in-flight, and post-flight planning. In this regard, it was recalled that the global ATM system, which is aimed at applying the operational concept based on collaborative decision-making (CDM), will require authorised high-quality sources of electronic aeronautical (AIS) and meteorological (MET) information available on a timely basis.

2.1.4 The meeting deemed it necessary to develop a “strategy” for planning, managing, and expediting AIS-to-AIM transition. It should be recognised that not all States or Regions can do an immediate transition to the AIM and that its implementation should be evolutionary, based on regional requirements. To that end, the States should bear in mind that, in terms of quality, consistency, and timeliness of the data handled by the AIS during this transition stage, the stringent requirements for the exchange of digital information must be met at levels that are substantially superior to those currently considered as acceptable. As a pre-requisite to AIM transition, the States that have not done so yet must assign high priority to the implementation of Annex 15 standards and recommended practices (SARPs) and, in particular, those related to the World Geodetic System - 1984, and the automation and quality management system.

2.1.5 On the other hand, the Meeting deemed it important for ICAO to disseminate the results of the *Worldwide Symposium on Enabling the Net-Centric Information Environment*, held in Montreal from 2 to 4 June 2008, where legal and institutional matters related to the AIS-AIM transition were addressed.

## **2.2 Review of the Reports of the AIM Subgroup Contributory Bodies**

### **Review of the AIM QM/TF-3 Report**

2.2.1 The Meeting reviewed the report of the Third meeting of the Quality Management Task Force (AIM/QM/TF/3), and did the follow-up on the initiative for the development of an implementation plan for a quality management system in AIM services. The Meeting discussed and updated the results of the work presented by the Rapporteur of the AIM/QM Task Force, as shown in **Appendix B** to this working paper.

2.2.2 In this respect, it was noted that, with the implementation of quality systems in the States and International Organizations, all work processes being carried out for the development of the Integrated Aeronautical Information Documentation should be **certified under a Quality Management System** that ensures that available information processes meet the ICAO/ISO precision, resolution, and integrity requirements.

2.2.3 The document prepared by the QM TF on human factor principles analysed civil aviation safety risks. In this sense, items 4), 6) and 8) of ICAO Strategic Objective A, related to AIM (AIS) services, are fundamental for the implementation of the new technologies for the processing and distribution of ordinary, essential and critical aeronautical data/information in both traditional (printed) and digital formats.

2.2.4 It was felt that ICAO international standards on quality and human factors are faced with new decision-making scenarios and have an impact on human performance. Thus the importance of their implementation and integration into the whole operational structure, including AIM (AIS), the pilots, dispatch offices, air traffic control, the maintenance area, amongst other areas in which they interact with aeronautical operations.

### **Review of the AIM TRAIN/TF-9 Report**

2.2.5 When reviewing the report of the Ninth meeting of the Aeronautical Information Management Training Task Force (AIM/TRAIN/TF/9), note was taken of the task involving the conduction of a course for AIS/MAP, based on AIM principles and human factor guidelines developed by the Quality Management Task Force. The Task Force reviewed the new ICAO AIS Training Manual and updated the AIS/021 Regional Standard Programme, adjusting it to the new AIM concept for its implementation in the CAR/SAM Regions.

2.2.6 The Task Force reviewed and did the follow-up on the action agreed upon by the QM/TF/2 meeting, the draft conclusions and decisions of the AIS/MAP/SG/10 meeting, and the conclusions of GREPECAS/14. It also reviewed the Guidance Material for the implementation of a quality management system in the AIS/MAP in the CAR/SAM Regions, Part 4 – Selection, Competency, Training, and Re-qualification of AIS/MAP (AIM) personnel.

2.2.7 The Task Force reviewed the curriculum and second-generation modules of the CAR/SAM AIS/021 course and the future CAR/SAM AIS/024 course. It also made a thorough review of the Guide on Responsibilities and Functions of AIS/MAP personnel, to make it consistent with the new Aeronautical Information Management (AIM) concept.

2.2.8 Lastly, the group agreed to study and define the basic criteria to ensure the development of a technical English language training programme for AIS/MAP personnel of CAR/SAM States.

2.2.9 When discussing this agenda item, the Meeting reviewed and updated the results of the work presented by the Rapporteur of the AIM/TRAIN task force, as shown in **Appendix C** to this working paper.

### **Review of the AIM e-MAP/TF-1 Report**

2.2.10 When reviewing the report of the First meeting of the Electronic Aeronautical Chart Task Force concerning Aeronautical Information Management (AIM/e-MAP/TF/1), the Meeting reviewed and updated the results of the work presented by the Rapporteur of the AIM/e-MAP task force, as shown in **Appendix D** to this working paper.

2.2.11 The e-MAP task force considered that ICAO should proceed with the development of technical cooperation guidelines so that they can be available by the first quarter of 2009. This will permit the production of VFR 1:500.000 y 1:1.000.000 electronic aeronautical charts approximately by 2015.

2.2.12 On the other hand, the e-MAP task force deemed it advisable to circulate a survey, which will be sent to the States/Territories/International Organizations through the Secretariat of the AIM Subgroup, in order to know the difficulties involved in the implementation of areas concerning e-TOD, in view of the target date established by ICAO. The responses obtained will be assessed at the next meeting of this working group, based on Chapter 10 of Annex 15, Doc. 9881, and the discussions among its members.

2.2.13 In its report, the e-MAP/TF also suggested that the AIM/SG should consider the possibility of coordinating with AECI, AENA and SAF for the conduction of a GIS seminar in 2009 that included mapping quality and digital contour models. Finally, it was noted that the working group had agreed that its next meeting (e-MAP/TF/2) would be held in April 2009, on a date and place to be confirmed.

### **2.3 Information confidentiality and sensitivity**

2.3.1 At the AIM/SG/11 meeting, the request was made that action be taken in view of the fact that any AIS system based on aeronautical information management networks and an AIM-based approach, should recognise that some of its data are sensitive for military, national security, airline, commercial airport, or industrial reasons. Only through the full support of all participants in the information process will it be possible to properly protect sensitive data, by taking the necessary measures to prevent unauthorised use, applying restricted access methods to critical revision and control operations, and implementing a way of identifying adverse circumstances that might affect aeronautical information management.

2.3.2 It was stated that if Organizations reduce defensive barriers in the operational field, systems would be subject to the impact of events that might lead to an accident. Particularly AIM (AIS) personnel responsible for processing aeronautical information, now in digital format, must be aware of the big responsibility and sensitivity (essential and critical data) of aeronautical information for users: pilots, flight planners and dispatchers, air traffic controllers, technicians from other air navigation services, and Organizations that produce aeronautical charts and other documents related to aeronautical information.

### **2.4 Review of the survey on the use of the AIP (AAA) audit process and its application in quality processes**

2.4.1 The Meeting noted that, in order to support quality processes, the GREPECAS/14 meeting, through Conclusion 14/38, requested CAR/SAM States, Territories, and International Organizations to audit their AIPs using the AAA (AIP Audit Assistant) tool, developed by EUROCONTROL. Through this audit concept, which consists of a set of checklists that correspond to each AIP item (COM, ATM, MET, AGA, SAR, MIL, etc.), it will be possible to identify inconsistencies in some parts of the AIPs, which would be undetectable if a rigorous systemic tracking procedure was not applied. The Secretariat urged the States that had not informed ICAO yet about the application of the AAA software, to do so as soon as possible.

2.4.2 Likewise, Cuba submitted an important information paper about the World Symposium on the implementation of network information environments, a copy of which appears in **Appendix E** to this working paper. It also reported that the documentation from that symposium was available at: <http://www.icao.int/netcentric/documentation.htm>.

## **2.5 International exchange of information**

2.5.1 For the international exchange of information, paragraph 3.6.1 of Annex 15 contains a standard that specifies that it is fundamental for Spanish-speaking States to take action regarding the production of the integrated aeronautical information package in the English language for international distribution, with special emphasis on NOTAM information, although there are several projects in this regard. An appeal was also made to the States that had not done so yet, to continue making the necessary efforts for prompt compliance, and to inform the corresponding Regional Office about the publication, as required by the cited standard.

## **2.6 “U” deficiencies in the AIM field**

2.6.1 The Meeting agreed that one of the responsibilities of the ICAO CAR/SAM Regional Offices, through GREPECAS, was to do the follow-up on, and assess, the deficiencies in each air navigation field, and to recommend relevant action for their resolution, especially with respect to deficiencies classified as urgent (“U”). Although they receive special treatment by the GREPECAS Aviation Safety Board (ASB), many deficiencies remain valid for many years, which mean that they are a “potential threat to the safety of air operations”, or have been unduly classified as “U”.

2.6.2 The States have designated a National Coordinator responsible for updating the GREPECAS Air Navigation Deficiencies Database (GANDD). The Regional Offices already have the list of National Coordinators responsible for updating the GANDD. In this regard, the Meeting noted that the criterion for classifying “U” deficiencies had been developed based on the risk analysis used in the official ICAO SMS course. The idea was to consider all deficiencies with a risk index of 5A, 5B, 5C, 4A, 4B, and 3A, with a frequent, occasional, and remote likelihood, respectively, and a **catastrophic, dangerous** and **serious** severity, as “U” deficiencies.

## **2.7 Matters concerning the AIS-to-AIM transition**

2.7.1 The Secretariat informed the Meeting that the panel at ICAO Headquarters was still developing the technical requirements (SARPs) related to the electronic display of AIP information and ICAO electronic aeronautical charts, with an estimated date of completion of these SARPs and guidelines between 2010 and 2013.

2.7.2 Currently, there are models developed by EUROCONTROL and the United States, such as the AICM/AIXM that have been extensively used for the exchange of aeronautical information. For that reason, consideration should be given to the need to review the documentation of said models, together with the model for the exchange of aerodrome charts (AMXM), and integrate them into the AIM processes.

## **2.8 Terms of reference and work programme of the AIM/SG**

2.8.1 The Meeting went on to review and update the terms of reference and work programme of the AIM/SG, and of the TRAIN/TF, QM/TF, and eMAP/TF working groups. This information is reflected in **Appendix F** to this working paper. In this regard, the Meeting considered the re-structuring of the AIM Subgroup, replacing the AUTO/TF with a new Information Technology/TF.

2.8.2 Under this agenda item, the Meeting analysed the scope of the current structure of the AIM Subgroup, with a view to improving its operational effectiveness, concretely through the replacement of the Automation Task Force (AUTO/TF), which had not met in the last two years, with a

new task force entitled Information Technology Task Force (AIM IT/TF). This would be addressed by the AIM/SG/12 meeting, given the need to update the terms of reference and work programme of a task force that would have as its main objective to link the latest aeronautical data and information technologies to the new AIM concept.

**3. Suggested action**

3.1 The Meeting is invited to:

- a) take note of the information contained in this working paper; and
- b) approve the draft conclusions contained in **Appendix G** to this working paper.

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