International Civil Aviation Organization
South American Regional Office
Second SAM Multilateral AIM Meeting
for AIS-to-AIM Transition (SAM/AIM/2)
Lima, Peru, 26 to 30 September 2011

Agenda Item 3: AIS-to-AIM transition planning

3.5 Implementation of geographic information systems (GIS)

Geographic Information Systems

(Presented by the Secretariat)

Summary

This working paper presents the Action Plan for the implementation of the Geographic Information System, as approved for the SAM Region, and proposes its integration with the e-TOD and Metadata Action Plan under a single AIM Project, in accordance with the new programme- and project-based GREPECAS organisation.

References:

- Annex 15 to the ICAO Convention
- SAM/AIM/1 multilateral meeting, Lima, Peru, 24-28 May 2010
- GIS/TF/1 meeting, Rio, Brazil, 21-25 March 2011
- AIM/SG/13 meeting, Mexico, 19-21 July 2011

ICAO strategic objectives:	*A – Safety* *C – Environmental protection*

1 Background

1.1 Geographic information systems provide a tool for automating the production of electronic charts by integrating databases, geo-referenced geographical information, aeronautical symbols and standard mapping specifications, thus contributing to the improvement of production processes and to the generation of new information distribution and publication channels.

1.2 The main advantages of implementing an SIG are, *inter alia*, the shared use of databases for the generation of different products, the reduction of data collection costs, homogeneous work platforms, and on-line use of information.

1.3 The first meeting of the Geographic Information System Task Force (GIS/TF/1) analysed the need and importance of providing GIS training with an aeronautical profile, and deemed it necessary to develop a GIS training programme within the context of AIM, taking into account the AIS-to-AIM transition roadmap and its different phases, as well as Annex 15 and Annex 4 SARPs.

1.4 The SAM/AIM/1 multilateral meeting considered that States should prepare an action plan for the implementation of a geographic information system (GIS) that permits an optimum management of geographical information with a view to AIS-to-AIM transition.

1.5 Likewise, the SAM/AIM/1 meeting provided guidance for the States on aspects related to the selection of a GIS and highlighted the importance of analysing its functionalities, cost-benefit ratio and relationship with quality systems.

1.6 The SAM/AIM/1 meeting also outlined an Action Plan for the implementation of a GIS, which appears in **Appendix A** to this working paper.

2 Discussion

2.1 The AIM/SG/13 meeting, taking into account the indications of GREPECAS to translate the activities of GREPECAS contributory bodies into programmes and projects, and given the number of projects that the CAR and SAM Regions would have, the States analysed the possibility of integrating the activities related to GIS, e-TOD and METADATA.

2.2 In view of this decision made by the Subgroup at its last meeting, and taking into account both the human and economic resources of the States to support project management, it is necessary to analyse the GIS Action Plan approved by the SAM/AIM/1 meeting, and consider the current SAM e-TOD Action Plan and metadata management activities under a single AIM project for the SAM Region.

3. Suggested action

3.1 Based on the foregoing, the Meeting is invited to form an *ad-hoc* group to analyse the GIS Action Plan contained in **Appendix A** to this working paper, and to integrate it with the e-TOD Action Plan and the metadata management tasks required to comply with the AIS-to-AIM transition roadmap.

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APPENDIX A

ACTION PLAN FOR THE IMPLEMENTATION OF A GEOGRAPHIC INFORMATION SYSTEM (GIS)

Activity	Start	End	Responsible party	Remarks
1. Diagnosis				
1.1 Assessment • cost-benefit • specialised personnel • hardware and software	2010	2011		
1.2 Market study for the purchase of a geographic information system	2010	2011	State	Invite providers
1.3 Selection and purchase of more suitable software and hardware	2010	2011	State	Study offers
2. Training				
2.1 Conduction of GIS courses, workshops or seminars	2010	2011	SAM training centres	Training programmes
3. QMS implementation in the GIS				
3.1 Develop procedures applicable to the GIS	2011	2011	State	Apply QMS procedures to the GIS
4. AIXM structure				
4.1 Knowledge of the AIXM structure	2011	2015	State	Know the structure under which AIXM is developed
5. Differences with the Annexes				
5.1 Eliminate differences with Annexes 4 and 15	2010	2011	State	Compliance with standards
6. Operational agreements				
6.1 Coordinate information requirements with the originators of aeronautical information	2010	2012	State	Letters of operational agreement
6.2 Coordinate information requirements with specific users	2010	2012	State	Letters of agreement