International Civil Aviation Organization
CAR/SAM Regional Planning and Implementation Group (GREPECAS)
Fourteenth Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/14)
San Jose, Costa Rica, 16 – 20 April 2007

Agenda Item 3: Assessment of development of regional air navigation and security infrastructure

3.5 Report of the AIS/MAP/SG/10 Meeting

(Presented by the Secretariat)

SUMMARY
This paper presents a summary of the results of the discussions held during the Tenth Meeting of the AIS/MAP Subgroup (AIS/MAP/SG/10). The Subgroup formulated Draft Conclusions and a Draft Decision for approval by the GREPECAS/14 Meeting.
References:
• Report of the AIS/MAP/SG/10 Meeting (Caracas, Venezuela 26 February - 02 March 2007); • Doc 8733 - *Air Navigation Plan - Caribbean and South American Regions*; • Report of the GREPECAS/13 Meeting (Santiago, Chile, 14-18 November 2005); • GREPECAS Procedural Manual.

1. Introduction

1.1 The Tenth Meeting of the AIS/MAP Subgroup (AIS/MAP/SG/10) was held in Caracas, Venezuela, from 26 February to 02 March 2007. The Meeting was attended by 47 participants from 16 States and two International Organizations. The Subgroup approved a report covering the matters discussed as well as six Draft Conclusions and a Draft Decision, submitted for approval of GREPECAS/14 Meeting.

2. Review of the Tenth Meeting of the AIS/MAP Subgroup

2.1 Review of the Actions Taken by Higher Bodies with Regard to the AIS/MAP Subgroup

2.1.1 The Meeting reviewed the list of GREPECAS conclusions and decisions and updated the information in the respective fields for proposal to the GREPECAS/14 Meeting for consideration, in regard to the actions taken by the Air Navigation Commission concerning GREPECAS/12 and GREPECAS/13 reports and the valid conclusions in the AIS/MAP area, leaving valid only those conclusions and decisions which have not expired or that would be subject to further work and/or actions in progress by the contributory bodies of the Subgroup.

2.1.2 The Meeting was informed that with regard to chart symbols, it will be essential to ensure that they have been harmonized in accordance with Annex 4 in order to avoid confusion with ICAO symbology in VFR aeronautical charts. Moreover, it was recognized that financial difficulties exist regarding availability of information in digital format for the production of charts in 1:1000,000 and 1:500,000 scales; therefore, co-operation with PAIGH is sought so that under an ICAO technical co-operation project, progress may be achieved in the CAR/SAM Regions.

2.1.3 The subject of electronic terrain and obstacles data was dealt with, which requires at least one training seminar with the application of a Special Implementation Project (SIP) that has been approved by the Council. This is expected to be held in the second half of 2007, as it was not performed on the scheduled dates due to insufficient participation by the States. Another item requiring special attention by degree of specialty and newly assigned responsibilities is the urgent updating of Doc 7192 Part E-3, in accordance with the requirements and objectives of an AIS/MAP quality system in the transition to the new AIM concept, and based on the comments of the ANC. The Meeting deemed suitable that ICAO effectively follow-up on Recommendation 4.2/1 (Amendment to Annex 1 – *Personnel Licensing*) of the AIS/MAP Divisional Meeting (AIS/MAP/98).

2.2 Review of the Reports of the AIS/MAP Subgroup Contributory Bodies

2.2.1 **Quality Management Task Force (QM/TF/2 Meeting)**: The Rapporteur of the Task Force presented the report of the meeting held in Montevideo, Uruguay, from 14 to 18 August 2006, with participation of 13 States and COCESNA, totaling 23 participants. Six draft conclusions were presented. The Secretariat reintroduced the aforementioned draft conclusions and pointed out the option of consolidating them into **Draft Conclusion 10/1** (refer to **Appendix A** to this working paper) that shows the scope of the six draft conclusions in a smaller number for practical reasons.

2.2.2 The Meeting requested the QM/TF to develop a quality management implementation plan to be presented to the Secretary of the Subgroup by **30 November 2007**, containing concrete actions and deadlines for application by CAR/SAM States/Territories and International Organizations that have not yet done so. **Appendix B** depicts the work performed on AIS/MAP quality and training by the QM/TF/2 Meeting.

2.2.3 **Automation and AIS/MAP Database Task Force:** The Task Force ICAO/PAIGH Aeronautical Charts Working Group (MAP-WG) presented its work regarding the ICAO/PAIGH Aeronautical Charts Project and a work plan that took into consideration ICAO/PAIGH efforts to integrate the production of VHF aeronautical charts in the CAR/SAM States on the basis of establishing aeronautical chart production by definition of fundamental and thematic data organized under ISO TC 211 international standards and practices, and development and management of common geographical databases.

2.2.4 The Meeting determined that it would be necessary to adopt a new conclusion from the nine presented by the Rapporteur of the MAP-WG with the aim of determining specific actions for this project and, therefore, it formulated **Draft Conclusion 10/2** (refer to Appendix A to this working paper).

2.2.5 **Automation and AIS/MAP Database Task Force (DB/AUTO/TF):** This task force did not meet as its Rapporteur was removed from the AIS field shortly before the scheduled meeting. Another meeting was not possible to coordinate nor hold due to end-of-year 2006 budgetary constraints of the States involved. Notwithstanding, the Meeting noted the actions being carried out by the CAR/SAM States on this matter in accordance with what was previously agreed by GREPECAS.

2.3 Review of Planning Aspects

2.3.1 The Meeting reviewed information regarding the AIM concept, which presents stages for the control of aeronautical information/data from the origin, storage, retrieval, exchange and submission of digital Aeronautical Information (AI) in the context of gate-to-gate flight operations, from a strategic flight-planning phase, until a post-flight phase. The Meeting noted the offer made by Venezuela to hold an Aeronautical Information Management (AIM) seminar for the CAR/SAM States to receive guidance on the modifications to be made to Annexes 4 and 15. It also noted the proposal to open a discussion forum to suggest solutions to implement those changes in accordance with the situation and limitations of the CAR/SAM Regions States. The Meeting was asked to consider the importance of this AIM seminar. The host State would handle all organizational matters to hold this event during the second half of 2007. ICAO support was requested for the coordination and dissemination of such an important event.

2.3.2 Cuba presented the Meeting with information for the understanding and application of the AIM concept in the CAR/SAM States, indicating that extended periods are needed to produce and distribute permanent information within the aeronautical information services of the Regions, which renders timely distribution difficult and, therefore, its degree of effectiveness. As a result, the manual process presents a risk to the integrity of data due to possible human errors. Therefore, the Meeting was requested to take into account the reference material presented by Cuba (**Appendix C** to this paper) to be used as guidance in the development of strategic actions for AIM implementation by the CAR/SAM States.

2.3.3 For this purpose, the Meeting considered that the Quality Management Task Force must include within its terms of reference the development of necessary tasks for a transition plan to the AIM concept in the CAR/SAM Regions linked to the activities of the global ATM operational concept, to be presented to the Secretariat by **16 November 2007**.

2.3.4 The Meeting evaluated promoting the implementation of automated systems in the CAR/SAM Regions AIS/MAP services, with a view to allowing the electronic display, both of AIP information and aeronautical charts, based on the need for a common platform for processing and exchange of electronic aeronautical data. The Meeting took into account the need of the States to use Geographic Information Systems (GIS) for the AIS/MAP services, which would contribute to reaching the proposed objectives. Therefore, it formulated **Draft Conclusion 10/3** (Appendix A to this paper).

2.3.5 Likewise, the Meeting proposed that the new Task Force on AIM Training include in its work programme tasks to develop guidelines and technical specifications to facilitate the use of Geographic Information Systems (GIS) in AIS/MAP services and examine the AIS-021 CAR/SAM Regional Training Programme in order to incorporate GIS.

2.3.6 **Assessment of the Actions Taken by the CAR/SAM States for the Provision of Electronic Terrain and Obstacles Data:** The Subgroup deemed suitable that States unite in order to develop the production of visual aeronautical charts in order to comply with the requirements of Annex 4 and Doc 8733 - *Air Navigation Plan - Caribbean and South American Regions*, with regard to aeronautical chart production. Therefore, the Secretariat requested the Meeting to consider the development of the ICAO/PAIGH Project as a feasible and necessary solution. In view of the fact that in the AIP, aeronautical charts are essential elements in air navigation safety, the Meeting approved the foregoing Draft Conclusion 10/2, which supersedes GREPECAS Conclusion 13/46.

2.3.7 The Meeting took note of the responsibility of States to ensure the provision of electronic terrain and obstacle data should also be used in accordance with the areas of application, such as the entire State's territory (Area 1), terminal control area (Area 2), aerodrome/heliport area (Area 3) and Category II or III operations area, (Area 4). It was also noted that States should take into account that the technical requirements of Areas 1 and 4 should be fulfilled by **20 November 2008**, while the technical requirements of Areas 2 and 3 should be fulfilled by **18 November 2010**. After these considerations, in order to effectively comply with the requirements of Chapter 10 of ICAO Annex 15, the Meeting agreed to adopt **Draft Conclusion 10/7** (Appendix A to this working paper), superseding GREPECAS Conclusion 13/44.

2.3.8 **Considerations on the Application of Human Factors in AIS/MAP Services and their Impact on Aeronautical Operational Safety:** The Meeting recognized that there are important matters in AIS/MAP services to be resolved for the successful transition to the AIM concept. This is linked to the human factor, as this is where decisions, errors, efficiency or deficiencies are generated, and accidents are avoided or caused. The Meeting mentioned that human factors are an important part of operational requirements, especially of aeronautical information/data quality requirements. Therefore, the Meeting considered that when human factors principles are implemented within the AIS/MAP services, and guidelines to facilitate their application in CAR/SAM States are established, the effects of human error in the AIS/MAP processes will be reduced.

2.4 Review of Implementation Aspects

2.4.1 **Status of Implementation of the NOTAM Databanks:** Note was taken of the fact that some States/Territories still faced difficulties complying with the implementation of NOTAM databanks. In addition, the follow-up actions carried out by interested States regarding GREPECAS Conclusion 13/42 were taken into account, concerning the development of operational agreements between States for the establishment of responsibility in storage and availability of NOTAM information in the CAR/SAM Regions, in accordance with the offer made by Brazil and Cuba, as well as COCESNA, to support States requiring aid in the establishment of their respective NOTAM databanks. This initiative has proven good results.

2.4.2 **Action Plans of the CAR/SAM States, Review of the Actions Adopted Concerning the Solution of Existing Deficiencies in the AIS/MAP Fields and Assessment of the Implications of the "U" Deficiencies and Their Possible Repriorization.** The AIS/MAP deficiencies classified as urgent "U" were discussed, as the fact that in spite of requiring and receiving special treatment by the GREPECAS ASB, they have still remained valid for many years, distorting their urgent character. Therefore, it became necessary to study them to determine their respective reclassification on the basis of how they directly and determinedly could affect the safety of air operations. The Meeting, taking into consideration that the responsibility for the classification of deficiencies was in the hands of the ICAO Regional Offices, agreed on the need to make it the AIS/MAP Subgroup Secretariat's responsibility to carry out the respective study on the reclassification of the ASI/MAP "U" deficiencies. IATA also pointed out the need to grant a high priority classification to the AIS/MAP deficiencies, as well as to provide proper follow-up.

2.4.3 The Meeting discussed the problem of the existing deficiencies. In addition, it examined the current status of the "A" high priority deficiencies, as well as the "B" priority deficiencies, in accordance with the information compiled by the ICAO Regional Offices, which was examined and updated by the GREPECAS contributory bodies. In addition, IATA commented on reports that airlines send to them requesting their assistance to resolve infrastructure problems affecting flight operations and safety.

2.4.4 **Actions to Comply with the CAR/SAM ANP/FASID Tables.** The Meeting took into consideration that, on the basis of CAR/SAM/3 RAN Meeting Recommendation 12/5 mandate regarding the aeronautical information availability requirements from other States at CAR/SAM international aerodromes (FASID Table AIS-4) for its inclusion in the FASID, the GREPECAS/13 Meeting, through Conclusion 13/49 - *Implementation and Incorporation of FASID Table AIS-4 in the Air Navigation Plan*, approved the FASID Table AIS-4 model for its remittance to the Air Navigation Commission (ANC). The second part of Conclusion 13/49 is still pending, which states that pertinent States should soon provide the NACC and SAM Regional Offices with all pertinent data to complete FASID Table AIS-4 for its presentation to GREPECAS/14 meeting. Consequently, and taking into consideration the urgent need to include Table AIS-4 in the FASID, the Meeting agreed to adopt **Draft Conclusion 10/6** (Appendix A to this working paper).

2.5 Review of Administrative Aspects of the AIS/MAP Subgroup

2.5.1 The Meeting considered the need to develop and implement a strategy ensuring the gradual implementation of AIM in the CAR/SAM States/Territories, whose objective would identify requirements and elements of a capable and adequate Aeronautical Information Management (AIM) system, to support the demands of CNS/ATM, bearing in mind its scope and involving all the current AIS areas while taking into account that all phases of flight should be covered and objectives and strategic actions should be created for the transition to AIM. It was noted that the main strategic objectives to be followed must be defined in order to attain a suitable transition to AIM.

2.5.2 **Review of the Terms of Reference and Work Programme of the AIS/MAP Subgroup and its Task Forces:** As a matter of interest and urgent need, and in order to adapt the AIS/MAP/SG Subgroup to the emerging technical and operational requirements and face the new challenges and responsibilities for the implementation of operational ATM, CNS/ATM systems, GNSS, and the evolving FMS, the Meeting deemed necessary and appropriate to restructure the AIS/MAP/SG and its contributory bodies by establishing new terms of reference and work programmes (in this regard, refer to Appendix G to WP/19), and to rename the AIS/MAP/SG to frame it within the conceptual environment of the electronic exchange of digital aeronautical data. As a result of the above, **Draft Decision 10/8** (Appendix A to this working paper) was agreed upon.

2.5.3 It was decided that the Task Forces should keep to a small number of members, and that preferably, their members should participate in no more than one Task Force in order to give the opportunity to other States/Territories/International Organizations wishing to participate in accordance with the specialties of the personnel responsible for integrating those Task Forces.

2.5.4 Election of Chairperson and Vice-Chairperson of the Subgroup and of the Rapporteurs of its Contributory Bodies

2.5.4.1 The Meeting proceeded to elect the Chairperson and Vice-Chairperson of the Subgroup and the Rapporteurs of the contributory bodies, in accordance with provisions of the GREPECAS Procedural Handbook. The assistants to the Meeting elected Mrs. Noemí Carta, Representative from Cuba, as Chairperson, and Mr. Rafael Torres, Representative of Venezuela, as Vice-Chairperson.

2.5.4.2 For the Task Forces, the same procedure was followed, with the following results: Rapporteur of the AIM Quality Management Task Force (AIM/QM/TF): Mr. Enrique Echarri (Cuba), Rapporteur of the Information Management Training Task Force (AIM/TRAIN/TF): Ms. Mery Frontanilla (Bolivia), Rapporteur of the Information Management Automation Task Force (AIM/AUTO/TF): Mr. Raul Octaviano de Sant'Anna (Brazil), and Rapporteur of the Information Management Electronic Aeronautical Charts Task Force: (AIM/e-MAP/TF) Ms. Viviana Barrientos (Chile).

2.5.4.3 Cuba presented its concern regarding inconsistencies of a customer claim regarding the contents of a NOTAM issued by the Cuba databank, which ensures automatic processing of NOTAM information, and is designed in accordance with the standards and formats established by ICAO and whose processes are certified under a quality management system ensuring that available aeronautical information meets the required accuracy, resolution and integrity. As a result, the Meeting requested IATA to alert its operators on the use of NOTAMs and to perform a "cross check" of the information considered sensitive that is generated through NOTAMs, in order to identify possible alterations by other existing databanks, either at regional levels or from the operators, that may lead to mistakes in the planning and execution of their flights. At the same time, the Secretariat was aware of the situation.

2.5.4.4 The Meeting was also informed of at least two more cases of this type of NOTAM alteration; Brazil informed of a case between September and October 2006, in a country in Asia. Likewise, the Meeting was informed of another case regarding the integrated documentation of Argentina that occurred in January 2007, where apparent non-authorized alteration of the original information issued by the foregoing State was made. Brazil commented that an investigation should be made in order to verify whether the cause was a malfunction of the system or an informatics virus.

3 Suggested Action

3.1 The Meeting is invited to:

a) note the information presented in this working paper; and

b) approve the Draft Conclusions and Decisions contained in Appendix A to this paper.

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APPENDIX A

DRAFT CONCLUSIONS AND DRAFT DECISION FOR APPROVAL BY GREPECAS

DRAFT CONCLUSION 10/1 REQUIREMENTS FOR THE IMPLEMENTATION OF QUALITY MANAGEMENT SYSTEMS FOR AIS/MAP IN THE CAR/SAM REGIONS

That the States and Territories of the CAR/SAM Regions, bearing in mind the advantages offered by the standardized application of guidelines and procedures for the implementation of quality management systems in their AIS/MAP services, adopt and apply:

a) Part – 4 of the Guidance Manual for the Implementation of an AIS/MAP Quality Management System for the CAR/SAM Regions; related to the selection, proficiency, training and qualification for the personnel of the Aeronautical Information Service, as presented in **Appendix A** to this part of the report (*Refer to* ***Attachment 1 t****o this Appendix*);

b) the procedures of verification and validation of aeronautical data contained in **Appendix B** to this part of the report (*Refer to* ***Attachment 2*** *to this Appendix*) which will be included in the contents of the Guidance Manual for the Implementation of an AIS/MAP Quality Management System;

c) the procedures to conduct quality audits to the AIS/MAP areas (see **Appendix C** to this part of the report (*Refer to* ***Attachment 3*** *to this Appendix*)), in order to ensure the effective development of this process in the CAR/SAM Regions, in accordance with the AIS Quality Guidance Manual; and

d) the necessary resources and mechanisms to ensure the activation of a lead auditors team to ensure the performance of quality audits in the AIS/MAP services of the CAR/SAM Regions.

DRAFT CONCLUSION 10/2 CONSOLIDATION OF THE CAR/SAM DIGITAL VFR AERONAUTICAL CHARTS PROJECT

That ICAO NACC and SAM Regional Offices work in a coordinated manner to achieve the CAR/SAM Digital VFR Aeronautical Charts Project by end 2008:

a) with PAIGH, in order to foster the production of VFR digital aeronautical charts on a common standards and procedures basis; and additionally

b) through the establishment of a technical co-operation programme funding mechanism by ICAO.

DRAFT
CONCLUSION 10/3 **ACTIONS FOR THE USE OF GEOGRAPHIC INFORMATION SYSTEMS (GIS) IN THE CAR/SAM REGIONS AIS/MAP SERVICES**

That, taking into account the appropriateness of evolving towards the concept of digital aeronautical information management by electronic means in the CAR/SAM Regions, and that the use of Geographic Information Systems (GIS) could contribute directly and positively with these requirements, by end of 2008:

a) CAR/SAM States and Territories consider the implementation of Geographical Information Systems (GIS) in AIS/MAP services as automated support for the electronic display of AIP and aeronautical chart information, and take actions to permit training of AIS personnel on the practical management of GIS, in order to facilitate the implementation and operation of these systems in their AIS services; and

b) the NACC and SAM Regional Offices take necessary actions to consider within relevant regional technical co-operation regional projects, the implementation requirements of Geographic Information Systems (GIS) as automated support for the activities of AIS/MAP services in the CAR/SAM Regions, in direct support of CNS/ATM.

DRAFT
CONCLUSION 10/5 **AIP AUDITS ASSISTANT (AAA) PROCESS INTEGRATION IN THE CAR/SAM AIS**

That States/Territories/International Organizations:

a) consider integrating the AAA, that can be downloaded for free at web page http://www.eurocontrol.int/aim/public/standard_page/tools_aaa.html , in the CAR/SAM AIS so as to improve the AIP production process through the assessment and application of AAA during an experimental period; and

b) develop a report on its use, shown in the **Appendix** (*Refer to **Attachment 4** to this Appendix*)to this part of the report, to be presented to the NACC and SAM Regional Offices by **31 March 2008**.

DRAFT
CONCLUSION 10/6 **CAR/SAM FASID TABLE AIS-4**

That, in compliance with CAR/SAM/3 RAN Recommendation 12/5, and based on the work carried out on this matter by both NACC and SAM Regional Offices and GREPECAS, and considering also that this is an operational requirement for the CAR/SAM Regions:

a) the CAR/SAM States that have not yet done so, send to the ICAO Regional Offices FASID Table AIS-4 as presented in **Appendix B** to this part of the report (*Refer to* ***Attachment 5*** *to this Appendix*) (FASID Tables AIS 4A and 4B) duly completed by 31 July 2007;

b) with that information, the ICAO NACC and SAM Regional Offices make the proposal for amendment to incorporate FASID Table AIS-4 - *Requirements for Integrated Aeronautical Information Package at International Airports* in the contents of Doc 8733, *CAR/SAM Air Navigation Plan, Volume II, FASID* by the end August 2007; and

c) concerned ICAO Regional Offices take the necessary actions in order to ensure that CAR/SAM States comply with maintaining the information of FASID Table AIS-4 duly updated.

DRAFT
CONCLUSION 10/7 **COMPLIANCE WITH SARPS CONTAINED IN CHAPTER 10 OF ICAO ANNEX 15 (ELECTRONIC TERRAIN AND OBSTACLE DATA)**

That, the States and Territories of the CAR and SAM Regions, with a view to ensuring the provision of electronic terrain and obstacle data, take immediate actions in order to:

a) include in their planning as soon as possible, the implementation of all required procedures to ensure that electronic terrain and obstacle data be provided in the period between 20 November 2008 (Annex 15, 10.6.1.1) and 18 November 2010 (Annex 15, 10.6.1.2), respectively, as established;

b) ensure effective compliance of item a), through the establishment of a specialists team in charge of the development of corresponding technical studies on this matter;

c) put into practice an action plan oriented to the collection of sets of electronic terrain and obstacle data for their classification, storage and availability in digital databases, in accordance with the contents and structure specified in Appendix 8 to ICAO Annex 15; and

d) ensure the effective availability of electronic terrain and obstacle data of the State's national territory through the coordination with national geographic institutes to have available aeronautical Visual Flight Charts (VFR), in digital format, at scales between 1:250,000 and 1:1,000,000, respectively.

DRAFT
DECISION 10/8

CHANGE OF NAME OF THE AIS/MAP SUBGROUP TO AERONAUTICAL INFORMATION MANAGEMENT (AIM) SUBGROUP

That, in order to frame it within the conceptual environment of the electronic exchange of digital aeronautical data, the name of the AIS/MAP Subgroup is changed to **Aeronautical Information Management (AIM) Subgroup (AIM/SG),** whose terms of reference and work programme are shown in **Appendix A** to this part of the report (*Refer to Appendix G to WP/19*).

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ATTACHMENTS 1 TO 3 TO APPENDIX A

Refer to the report of the Tenth Meeting of the GREPECAS Aeronautical Information Services Subgroup (AIS/MAP/SG/10), available in GREPECAS section of ICAO SAM Regional Office web page, as follows:

Address:	www.lima.icao.int	GREPECAS
User name:	**carsamrpg**	
Password:	**ccretkode**	

ATTACHMENT 1

Appendix A to Agenda Item 2
Guidance Manual for the Implementation of an AIS/MAP Quality Management System in the CAR/SAM Regions - Part 4: Selection, Competencies, Training, and Re-qualification of Aeronautical Information Service personnel

ATTACHMENT 2

Appendix B to Agenda Item 2
Verification and Validation of Aeronautical Data

ATTACHMENT 3

Appendix C to Agenda Item 2
Internal Audits

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ATTACHMENT 4 TO APPENDIX A

REPORT ON THE USE OF THE AIP AUDITS ASSISTANT (AAA)

Please indicate the replies according to the experience obtained in the use of the AAA tool and send this format via e-mail to the CAR or SAM Regional Offices as appropriate.

1) How many additional resources did you need to apply AIP audit?

☐ Many
☐ Few
☐ None

2) How much support did you receive from your Administration to perform the AIP Audit?

☐ Many
☐ Few
☐ None

3) How much cooperation did you receive from the involved AIS/MAP areas in the AIP Audit?

☐ Many
☐ Few
☐ None

4) Did you find it difficult to apply the AIP Audit?

☐ Yes
☐ A little bit
☐ No

5) Please indicate additional comments, they are very important in order to obtain further information on the difficulties and advantages of the AAA.

6) Time (in weeks) to perform the audit:

7) Name and position of the Audit:

8) Score of your AIP Audit:

9) How many persons were involved in the AIP Audit:

10) Name of the States/Territory

11) Contact e-mail address

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ATTACHMENT 5 TO APPENDIX A – TABLA FASID AIS-4

AIS-4-A			FROM/DE																																											
			CAR																														SAM													
Integrated Aeronautical Information Package TO BE AVAILABLE IN/ Documentación Integrada de Información Aeronáutica ESTARÁ DISPONIBLE EN			Anguilla (UK)	Antigua & Barbuda	Aruba (Neth.)	Bahamas	Barbados	Belize	Cayman Is. (UK)	Costa Rica	Cuba	Dominica	Dominican Rep.	El Salvador	French Antilles (France)	Grenada	Guatemala	Haiti	Honduras	Jamaica	Mexico	Montserrat Is. (UK)	Netherlands Antilles	Nicaragua	Puerto Rico (USA)	Saint Kitts & Nevis (UK)	Saint Lucia	St. Vincent & The Grenadines	Trinidad & Tobago	Turks & Caicos Is. (UK)	Virgin Is. (UK)	Virgin Is. (USA)	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	French Guyana (France)	Guyana	Panama	Paraguay	Peru	Suriname	Uruguay	Venezuela
City/Aerodrome Ciudad/Aeródromo	Use Uso	ICAO Local Indic.																																											
ARGENTINA																																													
BUENOS AIRES/ Aeroparque J, Newberry	RS	SABE																																		X										
BUENOS AIRES/ Dontorcuato	RG	SADD																																	X	X										
BUENOS AIRES/Ezeiza Ministro Pistarini	RS	SAEZ								X	X		X		X					X														X	X	X	X	X			X	X	X		X	X
BUENOS AIRES/San Fernando	RG	SADF																																	X	X									X	
CATARATAS DEL IGUAZU/M, y D, Carlos Eduardo Krause	RNS & SA	SARI																																	X											
COMODORO RIVADAVIA/General Mosconi	RS	SAVC																																		X										
CORDOBA/Ing, Aer, A,I, Taravela	RS	SACO																																	X	X									X	
FORMOSA/Formosa	RG	SARF																																	X											
JUJUY/Gobernador Guzmán	RS	SASJ																																		X										
MAR DEL PLATA/ Bgdier, Gral, B, de al Colina	RG & AS	SAZM																																	X										X	
MENDOZA/El Plumerillo	RS	SAME																																	X	X										
NEUQUEN/Presidente Perón	RS	SAZN																																		X									X	
POSADAS/Libertador Gral. D. José de San Martín	RNS	SARP																																	X											

AIS-4-A			**FROM/DE**																																											
			CAR																														**SAM**													
Integrated Aeronautical Information Package TO BE AVAILABLE IN/ Documentación Integrada de Información Aeronáutica ESTARÁ DISPONIBLE EN			Anguilla (UK)	Antigua & Barbuda	Aruba (Neth.)	Bahamas	Barbados	Belize	Cayman Is. (UK)	Costa Rica	Cuba	Dominica	Dominican Rep.	El Salvador	French Antilles (France)	Grenada	Guatemala	Haiti	Honduras	Jamaica	Mexico	Montserrat Is. (UK)	Netherlands Antilles	Nicaragua	Puerto Rico (USA)	Saint Kitts & Nevis (UK)	Saint Lucia	St. Vincent & The Grenadines	Trinidad & Tobago	Turks & Caicos Is. (UK)	Virgin Is. (UK)	Virgin Is. (USA)	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	French Guyana (France)	Guyana	Panama	Paraguay	Peru	Suriname	Uruguay	Venezuela
City/Aerodrome Ciudad/Aeródromo	Use Uso	ICAO Local Indic.																																											
RESISTENCIA/ Resistencia	RNS & AS	SARE																																											
RIO GALLEGOS/Piloto Civil N. Fernández	RS	SAWG																																	X										
RIO GRANDE/Río Grande	RNS & AS	SAWE																																	X										
ROSARIO/Rosario	RS	SAAR																																X										X	
SALTA/Salta	RS	SASA																																X	X										
SAN CARLOS DE BARILOCHE/San Carlos de Bariloche	RNS & AS	SAZS																																X	X									X	
TUCUMAN/Tte. Benjamín Matienzo	RS	SANT																																	X									X	
USHUAIA/Malvinas Argentinas	RNS & AS	SAWH																																	X										
BOLIVIA																																													
COCHABAMBA/Jorge Wilsterman	AS	SLCB																													X	X	X	X	X	X				X	X			
LA PAZ/El Alto	RS	SLLP									X										X												X	X	X	X	X	X			X	X	X		X	X
SANTA CRUZ/Viru Viru	RS	SLVR									X										X												X	X	X	X	X	X			X	X	X		X	X
TARIJA/Oriel Lea Plaza	RNS & AS	SLTJ																													X	X												
TRINIDAD/Tte. Av. Jorge Henrich Arauz	AS	SLTR																														X	X											
BRAZIL																																													
BELEM/ Val de Caes	RS	SBBE					X																						X										X					X		

AIS-4-A			FROM/DE																																											
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Integrated Aeronautical Information Package TO BE AVAILABLE IN/ Documentación Integrada de Información Aeronáutica ESTARÁ DISPONIBLE EN			Anguilla (UK)	Antigua & Barbuda	Aruba (Neth.)	Bahamas	Barbados	Belize	Cayman Is. (UK)	Costa Rica	Cuba	Dominica	Dominican Rep.	El Salvador	French Antilles (France)	Grenada	Guatemala	Haiti	Honduras	Jamaica	Mexico	Montserrat Is. (UK)	Netherlands Antilles	Nicaragua	Puerto Rico (USA)	Saint Kitts & Nevis (UK)	Saint Lucia	St. Vincent & The Grenadines	Trinidad & Tobago	Turks & Caicos Is. (UK)	Virgin Is. (UK)	Virgin Is. (USA)	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	French Guyana (France)	Guyana	Panama	Paraguay	Peru	Suriname	Uruguay	Venezuela
City/Aerodrome Ciudad/Aeródromo	Use Uso	ICAO Local Indic.																																											
BELO HORIZONTE/ Tancredo Neves Intl.	RS	SBCF																																											
BOA VISTA/Boa Vista Intl.	RS	SBBV																																											
BRASILIA/Brasilia Intl.	RS	SBBR																																					X					
CAMPINAS/Viracopos Intl.	RS	SBKP																													X	X		X									X	
CAMPO GRANDE/ Campo Grande Intl.	RS	SBCG																														X									X			
CORUMBA/Corumba Intl.	RS	SBCR																														X								X				
CRUZEIRO DO SUL/ Cruzeiro do Sul	RS	SBCZ																																											
CUIABA/Marechal Rondon Int.	RS	SBCY																																											
CURITIBA/Afonsa Pena Intl.	RS	SBCT																													X									X			X	
FLORIANOPOLIS/ Hercilio Luz Intl.	RS	SBFL																																											
FORTALEZA/Pino Martins Intl.	RS	SBFZ																																											
FOZ DO IGUACU/ Cataratas Intl.	RS	SBFI																													X									X			X	
MACAPA/Macapá Intl.	RS	SBMQ																																			X					X		
MANAUS/Eduardo Gomes Intl.	RS	SBEG				X																										X			X				X		X			X
NATAL/Augusto Severo Intl.	AS	SBNT																																											
PONTA PORA/Ponta Porá Intl.	RS	SBPP																																						X				
PORTO ALEGRE/ Salgado Filho Intl.	RS	SBPA																													X			X						X				

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City/Aerodrome Ciudad/Aeródromo	Use Uso	ICAO Local Indic.																																											
RECIFE/Guararapes Intl.	RS	SBRF																											X				X						X					X	X	
RIO DE JANEIRO/ Galeao. Antonio Carlos Jobim Intl.	RS	SBGL					X																										X	X		X	X	X	X		X	X	X	X	X	X
SALVADOR/Deputado Luis Eduardo Magalhaes Intl.	RS	SBSV																																											
SANTAREM/Santarém Intl.	AS	SBSN																																											
SAO LUIS/Marechal Cunha Machado Intl.	AS	SBSL																																											
SAO PAULO/Guarulhos Intl.	RS	SBGR																															X	X		X	X	X				X	X		X	
TABATINGA/Tabatinga Intl.	RS	SBTT																																								X			
URUGUALANA/Rubem Berta Inl.	RS	SBUG																																											
CHILE																																													
ANTOFAGASTA/Cerro Moreno	AS	SCFA																															X	X	X			X					X			
ARICA/Chacalluta	RS	SCAR																															X	X	X			X					X			
CONCEPCION/Carriel Sur	RS	SCIE																															X	X	X			X					X			
IQUIQUE/Gral. Diego Aracena Intl.	RS	SCDA																															X													
PUERTO MONTT/El Tepual	RS	SCTE																															X													
PUNTA ARENAS/Pdte. C. Ibañez del Campo	AS	SCCI																															X													

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Integrated Aeronautical Information Package TO BE AVAILABLE IN/ Documentación Integrada de Información Aeronáutica ESTARÁ DISPONIBLE EN			Anguilla (UK)	Antigua & Barbuda	Aruba (Neth.)	Bahamas	Barbados	Belize	Cayman Is. (UK)	Costa Rica	Cuba	Dominica	Dominican Rep.	El Salvador	French Antilles (France)	Grenada	Guatemala	Haiti	Honduras	Jamaica	Mexico	Montserrat Is. (UK)	Netherlands Antilles	Nicaragua	Puerto Rico (USA)	Saint Kitts & Nevis (UK)	Saint Lucia	St. Vincent & The Grenadines	Trinidad & Tobago	Turks & Caicos Is. (UK)	Virgin Is. (UK)	Virgin Is. (USA)	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	French Guyana (France)	Guyana	Panama	Paraguay	Peru	Suriname	Uruguay	Venezuela
City/Aerodrome Ciudad/Aeródromo	Use Uso	ICAO Local Indic.																																											
SANTIAGO/Arturo Merino Benitez	RS	SCEL								X							X	X	X	X	X			X					X				X	X	X		X	X	X	X	X	X	X	X	X	X
COLOMBIA																																													
BARRANQUILLA/ Ernesto Cortissoz	RS	SKBQ			X				X	X	X		X						X	X	X		X						X				X	X	X	X		X			X	X	X		X	X
CALI/Alfonso Bonilla Aragón	RS	SKCL								X									X		X													X	X			X			X		X			X
CARTAGENA/Rafael Nuñez	RS	SKCG			X					X	X								X	X	X		X						X					X	X			X			X		X			X
CUCUTA/Camilo Daza	RNS & AS	SKCC																					X															X			X		X			X
LETICIA/Alfredo Vásquez Cobo	RNS & AS	SKLT																															X	X	X			X					X			X
RIONEGRO/José María Córdoba	RS	SKRG								X	X								X		X		X										X		X	X		X			X		X			X
SAN ANDRES I./ Sesquicentenario	RS	SKSP			X					X	X								X	X	X																				X					
SANTAFE DE BOGOTA/ Eldorado	RS	SKBO			X					X	X		X						X	X	X		X		X				X				X	X	X	X		X			X	X	X		X	X
CUBA																																													
HAVANA CITY	RS	MUHA			X	X	X	X	X	X							X	X	X	X	X		X	X									X	X	X	X	X	X			X	X	X			X
ECUADOR																																													
GUAYAQUIL/José Joaquín de Olmedo Intl	RS	SEGU								X	X		X								X														X	X	X	X	X		X		X			X
XLATACUNGA/Cotopaxi	RNS & AS	SELT																																												
MANTA/Eloy Alfaro	RS	SEMT																																												
QUITO/Mariscal Sucre	RS	SEQU								X	X		X								X														X		X	X			X		X		X	

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City/Aerodrome Ciudad/Aeródromo	Use Uso	ICAO Local Indic.																																											
FRENCH GUYANA (France)																																													
CAYENNE/ Rochambeau	RS	SOCA					X								X																				X					X				X		X
GUYANA																																													
TIMEHRI/Cheddi Jagan Intl.	RS	SYCJ					X									X				X					X	X	X	X	X						X				X					X		X
PANAMA																																													
BOCAS DEL TORO/ Bocas del Toro	RG & AS	MPBO								X																											X									
CHANGUINOLA/Cap. Manuel Niño	RG & AS	MPCH								X																											X									
DAVID/Enrique Malek	RS	MPDA								X																											X									
PANAMA/Marcos A. Gelabert	RG & AS	MPMG								X																											X									
PANAMA/Tocumen Intl.	RS	MPTO					X			X	X	X	X	X		X	X	X	X	X	X	X	X			X	X	X	X		X		X	X	X	X	X	X				X	X		X	X
PARAGUAY																																													
ASUNCION/Silvio Pettirossi	RS	SGAS								X	X						X			X													X	X	X	X	X	X			X		X		X	X
CIUDAD DEL ESTE/ Guarani	RS	SGES								X	X						X			X													X	X	X	X	X	X			X		X		X	X
PERU																																													
AREQUIPA/Rodríguez Ballón Intl.	AS	SPQU																															X	X		X										
CHICLAYO/Cap. José Quiñones Gonzalez	AS	SPHI																																			X	X			X					
CUZCO/Velazco Astete	RS	SPZO																																X												

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City/Aerodrome Ciudad/Aeródromo	Use Uso	ICAO Local Indic.																																											
IQUITOS/Cnel. FAP Francisco Secada Vignetta	RS	SPQT																																	X		X									
LIMA-CALLAO/Jorge Chávez Intl.	RS	SPIM						X		X	X		X	X					X	X	X			X					X				X	X	X	X	X	X	X	X	X	X		X	X	X
PISCO/Pisco	AS	SPSO																																											
TACNA/Cnel. FAP Carlos Ciriani Santa Rosa	RG	SPTN																															X	X		X											
TRUJILLO/Cap. Carlos Martinez de Pinillos	AS	SPRU																																											
SURINAME																																													
NEW NICKERIE/Maj, Fernandes	AS	SMNI																																											
PARAMARIBO/Zorg en Hoop	RG	SMZO					X																						X										X	X						
ZANDERY/Johan Adolf Pengel Intl.	RS	SMJP			X	X	X								X			X					X						X						X				X	X						X
URUGUAY																																													
COLONIA/Internacional de Colonia	RG	SUCA																															X		X	X						X			X	
MALDONADO/Intl. CC Carlos A. Curbelo: Laguna del Sauce	RS	SULS																															X		X	X									X	
MONTEVIDEO/ Aeropuerto Angel S, Adami Intl.	RG	SUAA																															X		X	X									X	
MONTEVIDEO/Carrasco Intl. Gral. Cesáreo L. Berisco	RS	SUMU							X												X												X	X	X	X	X	X			X	X	X		X	X
RIVERA/Cerro Chapeu Intl.	RS	SURV																															X		X										X	

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City/Aerodrome Ciudad/Aeródromo	Use Uso	ICAO Local Indic.																																												
SALTO/Nueva Hesperides Intl.	RG	SUSO																													X		X										X	
VENEZUELA																																												
BARCELONA/Gral. José Antonio Anzóategui Intl.	RN S	SVBC			X								X										X						X						X				X	X						
CARACAS/Simón Bolívar Intl. Maiquetía	RS	SVMI			X		X			X	X		X		X	X	X			X	X		X		X		X		X				X	X	X	X	X	X	X	X	X		X			
MARACAIBO/La Chinita Intl.	RS	SVMC			X								X										X														X				X		X			
MARGARITA/Intl. Del Caribe Gral. Santiago Marino	RS	SVMG			X		X						X												X				X						X											
PARAGUANÁ/Josefa Camejo Intl.	RS	SVJC			X								X								X		X		X												X				X					
SAN ANTONIO DEL TACHIRA/San Antonio del Tachira Intl.	RS	SVSA			X																																X	X			X		X			
VALENCIA/Zim Valencia Intl.	RS	SVVA			X		X				X		X										X						X								X	X					X			

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Integrated Aeronautical Information Package TO BE AVAILABLE IN/ Paquete Integrado de Información Aeronáutica ESTARÁ DISPONIBLE EN			Angola	Cape Verde	Canary Islands (Spain)	Congo	Cote D'Ivoire	Gambia	Ghana	Guinea Rep. of	Guinea-Bissau	Liberia	Mauritania	Morocco	Namibia	Nigeria	Senegal	Sierra Leone	South Africa	Togo	Zaire	Australia	New Zealand	Austria	Belgium	Czech Republik	Denmark	Finland	France	Germany	Hungary	Ireland	Italy	Luxembourg	Netherlands	Poland	Portugal	Russian Federation	Slovakia	Spain	Switzerland	United Kingdom	Cook Islands	French Polynesia	Canada	United States	Bermuda (UK)
City/ Aerodrome Ciudad/ Aeródromo	Use/ Uso	ICAO Local Indic.																																													
ARGENTINA																																															
BUENOS AIRES/ Aeroparque J, Newberry	RS	SABE																																													
BUENOS AIRES/ Dontorcuato	RG	SADD																																													
BUENOS AIRES/Ezeiza Ministro Pistarini	RS	SAEZ							X										X				X						X	X			X							X		X				X	
BUENOS AIRES/San Fernando	RG	SADF																																													
CATARATAS DEL IGUAZU/M, y D, Carlos Eduardo Krause	RNS & SA	SARI																																													
COMODORO RIVADAVIA/ Gral. Mosconi	RS	SAVC																																													
CORDOBA/Ing, Aer, A,I, Taravela	RS	SACO																																													
FORMOSA/ Formosa	RG	SARF																																													
JUJUY/ Gob. Guzmán	RS	SASJ																																													
MAR DEL PLATA/ Bgdier, Gral, B, de al Colina	RG & AS	SAZM																																													

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Integrated Aeronautical Information Package TO BE AVAILABLE IN/ Paquete Integrado de Información Aeronáutica ESTARÁ DISPONIBLE EN			Angola	Cape Verde	Canary Islands (Spain)	Congo	Cote D'Ivoire	Gambia	Ghana	Guinea Rep. of	Guinea-Bissau	Liberia	Mauritania	Morocco	Namibia	Nigeria	Senegal	Sierra Leone	South Africa	Togo	Zaire	Australia	New Zealand	Austria	Belgium	Czech Republik	Denmark	Finland	France	Germany	Hungary	Ireland	Italy	Luxembourg	Netherlands	Poland	Portugal	Russian Federation	Slovakia	Spain	Switzerland	United Kingdom	Cook Islands	French Polynesia	Canada	United States	Bermuda (UK)
City/ Aerodrome Ciudad/ Aeródromo	Use/ Uso	ICAO Local Indic.																																													
MENDOZA/El Plumerillo	RS	SAME																																													
NEUQUEN/ Presidente Perón	RS	SAZN																																													
POSADAS/ Libertador Gral. D. José de San Martín	RNS	SARP																																													
RESISTENCIA/ Resistencia	RNS & AS	SARE																																													
RIO GALLEGOS/ Piloto Civil N. Fernández	RS	SAWG																																													
RIO GRANDE/Río Grande	RNS & AS	SAWE																																													
ROSARIO/ Rosario	RS	SAAR																																													
SALTA/Salta	RS	SASA																																													
SAN CARLOS DE BARILOCHE/ San Carlos de Bariloche	RNS & AS	SAZS																																													
TUCUMAN/ Tte. Benjamín Matienzo	RS	SANT																																													
USHUAIA/ Malvinas Argentinas	RNS & AS	SAWH																																													

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City/ Aerodrome Ciudad/ Aeródromo	Use/ Uso	ICAO Local Indic.																																												
BOLIVIA																																														
COCHABAMBA/ Jorge Wilsterman	AS	SLCB																																											X	
LA PAZ/El Alto	RS	SLLP																																											X	
SANTA CRUZ/ Viru Viru	RS	RLVR																																											X	
TARIJA/Oriel Lea Plaza	RNS & AS	SLTJ																																												
TRINIDAD/Tte. Av. Jorge Henrich Arauz	AS	SLTR																																												
BRAZIL																																														
BELEM/Val de Caes	RS	SBBE																																											X	
BELO HORIZONTE/ Tancredo Neves Intl.	RS	SBBV																																												
BOA VISTA/Boa Vista Intl.	RS	SBBV																																												
BRASILIA/Brasilia Intl.	RS	ABR																																												
CAMPINAS/ Viracopos	RS	SBKP																																												
CAMPO GRANDE/ Campo Grande Intl.	RS	SBCG																																												

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City/ Aerodrome Ciudad/ Aeródromo	Use/ Uso	ICAO Local Indic.																																													
CORUMBA/ Columba Intl.	RS	SBCR																																													
CRUZEIRO DO SUL/Cruzeiro do Sul	RS	SBCZ																																													
CUIABA/Marechal Rondon Intl.	RS	SBCY																																													
CURITIBA/Afonsa Pena Intl.	RS	SBCT																																													
FLORIANÓPOLIS/ Hercilio Luz Intl.	RS	SBFL																																													
FORTALEZA/Pino Martins Intl.	RS	SBFZ																																											X	
FOZ DO IGUAZU/ Cataratas Intl.	RS	SBFI																																													
MACAPA/Macapá Intl.	RS	SBMQ																																													
MANAUS/Eduardo Gomes Intl.	RS	SBEG																																											X	
NATAL/Augusto Severo Intl.	AS	SBNT																									X																				
PONTA PORA/ Ponta Porá Intl.	RS	SBPP																																													
PORTO ALEGRE/ Salgado Filho Intl.	RS	SBPA																																													
RECIFE/ Guararapes Intl.	RS	SBRF														X																			X				X										

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City/ Aerodrome Ciudad/ Aeródromo	Use/ Uso	ICAO Local Indic.																																													
RIO DE JANEIRO/ Galeao Antonio Carlos Jobim Intl.	RS	SBGL										X		X			X		X											X	X			X				X			X	X	X				X	
SALVADOR/ Dep. Luis Eduardo Magalhaes Intl.	RS	SBSV																																				X										
SANTAREM/ Santarém Intl.	AS	SBSN																																													
SAO LUIS/ Marechal Cunha Machado Intl.	AS	SBSL																																													
SAO PAULO/ Garulhos Intl.	RS	SBGR																													X			X				X			X		X				X	
TABATINGA/ Tabatinga Intl.	RS	SBTT																																													
URUGUALANA/ Rubem Berta Intl.	RS	SBUG																																													
CHILE																																															
ANTOFAGASTA/ Cerro Moreno	AS	SCFA																																													
ARICA/Chacalluta	RS	SCAR																																													
CONCEPCIÓN/ Carriel Sur	RS	SCIE																																													
IQUIQUE/Gral. Diego Aracena Intl.	RS	RCDA																																													
PUERTO MONTT/ El Tepual	RS	SCTE																																													

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City/ Aerodrome Ciudad/ Aeródromo	Use/ Uso	ICAO Local Indic.																																												
PUNTA ARENAS/ Pdte. C. Ibáñez del Campo	AS	SCCI																																												
SANTIAGO/Arturo Merino Benítez	RS	SCEL																				X						X	X			X					X		X	X	X		X	X	X	
COLOMBIA																																														
BARRANQUILLA/ Ernesto Cortissoz	RS	SKBQ																										X												X					X	X	
CALI/Alfonso Bonilla Aragón	RS	SKCL																																												X	
CARTAGENA/ Rafael Núñez	RS	SKCG																																				X					X	X	
CUCUTA/Camilo Daza	RNS & AS	SKCC																																												
LETICIA/Alfredo Vásquez Cobo	RNS & AS	SKLT																																												
RIONEGRO/José María Córdoba	RS	SKSP																																				X						X	
SAN ANDRES I./ Sesquicentenario	RS	SKSP																																									X	X	
SANTA FE DE BOGOTÁ/Eldorado	RS	SKBO																										X				X				X			X		X			X	X	
CUBA																																														
HAVANA CITY	RS	MUHA	X	X																				X		X	X	X	X		X	X		X		X	X		X	X				X	X	X
ECUADOR																																														
GUAYAQUIL/ José Joaquín de Olmedo Intl	RS	SEGU																																				X						X	

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LATACUNGA/ Cotopaxi	RNS & AS	SELT																																											
MANTA/Eloy Alfaro	RS	SEMT																																											
QUITO/Mariscal Sucre	RS	SEQU																																					X						X	
FRENCH GUYANA (France)																																													
CAYENNE/ Rochambeau	RS	SOCA																																											
GUYANA																																													
TIMEHRI/Cheddi Jagan Intl.	RS	SYCJ																																							X					
PANAMA																																													
BOCAS DEL TORO/Bocas del Toro	RG & AS	MPBO																																											
CHANGUINOLA/ Cap. Manuel Niño	RG & AS	MPCH																																											
DAVID/Enrique Malek	RS	MPDA																																											
PANAMA/Marcos A. Gelabert	RG & AS	MPMG																										X	X			X		X			X		X		X			X	X	
PANAMA/ Tocumen Intl.	RS	MPTO	X																																										
PARAGUAY																																													
ASUNCIÓN/Silvio Pettirossi	RS	SGAS																											X										X		X				X	

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CIUDAD DEL ESTE/ Guarani	RS	SGES																												X										X		X				X	
PERU																																															
AREQUIPA/ Rodriguez Ballón Intl.	AS	SPQU																																													
CHICLAYO/Cap. José Quiñónez Gonzáles	AS	SPHI																																													
CUZCO/Velazco Astete	RS	SPZO																																													
IQUITOS/Cnel. FAP Francisco Secada Vignetta	RS	SPQT																																													
LIMA-CALLAO/ Jorge Chávez	RS	SPIM																												X			X		X			X		X	X	X					
PISCO/Pisco	AS	SPSO																																													
TACNA/Cnel. FAP Carlos Ciriani Santa Rosa	RG	SPTN																																													
TRUJILLO/Cap. Carlos Martínez de Pinillos	AS	SPRU																																													
SURINAME																																															
NEW NICKERIE/ Maj. Fernandes	AS	SMNI																																													
PARAMARIBO/ Zorg en Hoop	RG	SMZO																																													

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City/ Aerodrome Ciudad/ Aeródromo	Use/ Uso	ICAO Local Indic.																																											
ZANDERY/Johan Adolf Pengel Intl.	RS	SMJP		X	X				X								X								X				X						X		X					X				X	
URUGUAY																																															
COLONIA/ Internacional de Colonia	RG	SUCA																																													
MALDONADO/Intl. CC Carlos A. Curbelo: Laguna del Sauce	RS	SULS																																													
MONTEVIDEO/ Carrasco Intl. Gral. Cesáreo L. Berisco	RS	SUMU			X	X	X						X			X	X		X	X			X						X	X			X				X			X	X						
RIVERA/Cerro Chapeu Intl.	RS	SURV																																													
SALTO/Nueva Hesperides Intl.	RG	SUSO																																													
VENEZUELA																																															
BARCELONA/Gral. José Antonio Anzoátegui Intl.	RNS	SVBC																																										X	X	
CARACAS/Simón Bolívar Intl. Maiquetía	RS	SVMI																										X	X		X	X		X		X			X	X	X			X	X	
MARACAIBO/La Chinita Intl.	RS	SVMC																										X	X			X													X	

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			AFI																			ASIA		EUR																			PAC		NAM		NAT
Integrated Aeronautical Information Package TO BE AVAILABLE IN/ Paquete Integrado de Información Aeronáutica ESTARÁ DISPONIBLE EN			Angola	Cape Verde	Canary Islands (Spain)	Congo	Cote D'Ivoire	Gambia	Ghana	Guinea Rep. of	Guinea-Bissau	Liberia	Mauritania	Morocco	Namibia	Nigeria	Senegal	Sierra Leone	South Africa	Togo	Zaire	Australia	New Zealand	Austria	Belgium	Czech Republik	Denmark	Finland	France	Germany	Hungary	Ireland	Italy	Luxembourg	Netherlands	Poland	Portugal	Russian Federation	Slovakia	Spain	Switzerland	United Kingdom	Cook Islands	French Polynesia	Canada	United States	Bermuda (UK)
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MARGARITA/Intl. Del Caribe Gral. Santiago Marino	RS	SVMG																											X	X			X				X			X		X			X	X	
PARAGUANÁ/ Josefa Camejo Intl.	RS	SVJC																																												X	
SAN ANTONIO DEL TACHIRA/ San Antonio del Tachira Intl.	RS	SVSA																																												X	
VALENCIA/Zim Valencia Intl.	RS	SVVA																																			X			X						X	

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APPENDIX B

TASKS CARRIED OUT AT THE AIS/MAP QUALITY MANAGEMENT TASK FORCE (QM/TF/2) MEETING

- Development and review of the guidance material for the implementation of an Aeronautical Information Services Quality Management System in the CAR/SAM Regions, Part 4 – Selection, Competency, Training and Requalification of AIS/MAP Personnel.

- Review of the new ICAO AIS Training Manual. Comparison with AIS/021 CAR/SAM Course.

- Development and review of guidelines and criteria for the development of the syllabus and modules for the second version of the AIS/021 CAR/SAM Course, to be renamed AIS/024 CAR/SAM.

- Review of the guidance manual on responsibilities and duties of the AIS/MAP officer adapted to the new Aeronautical Information Management (AIM) concept.

- Development and review of regional procedures to ensure quality and integrity of aeronautical information/data.

- Development and review of procedures and flow at a regional level to perform audits in the different AIS/MAP areas.

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APPENDIX C

REFERENCE MATERIAL PRESENTED BY CUBA AT THE AIS/MAP/SG/10

AIM ELEMENTS FOR THE CAR/SAM REGIONS

SUMMARY

This material presents essential information for understanding and applying the Aeronautical Information Management (AIM) concept in the CAR/SAM States.

References:

- Information from the Global AIS Congress, held in Madrid, Spain, June 2006.
- Working and information papers presented at various meetings of GREPECAS contributory bodies.

1. Introduction

1.1 Transition of the Aeronautical Information Service (AIS) to Aeronautical Information Management (AIM) is already a fact, but it does not mean that it will not require great effort and investments in order to ensure a suitable and efficient transition.

1.2 This reference material provides the principal elements necessary to achieve a better understanding of this process, which all the States of the CAR/SAM Regions should undertake as soon as possible.

1.3 To develop this paper, we have identified the essential elements discussed at various ICAO meetings dealing with the subject, EUROCONTROL's experiences and elements presented during the Global AIS Congress.

2. Discussion

2.1 Current Situation of the Aeronautical Information Service. Its Limitations.

2.1.1 Currently, the aeronautical information services of our Regions are inflexible and require long time for production and distribution of permanent information. This makes rapid distribution difficult and reduces the degree of the information's effectiveness.

2.1.2 Likewise, NOTAM publication from the moment of the originator's request for publication until its transmission via AFTN does not allow for extensive or graphic information.

2.1.3 All of this manual processing increases the risks to data integrity caused by human error.

2.2 CNS/ATM Environment

2.2.1 Nevertheless, even with these limitations, the development of CNS/ATM systems continues to advance with the development of the ATM Operational Concept, a fundamental concept that demands and requires correlative support and collaboration of aeronautical information.

2.2.2 The ATM Operational Concept may be defined as a worldwide integrated, harmonized and inter-functional system that provides multiple benefits to the entire aviation community, such as seamless inter-operability, the utilization, management and exchange of information at a world-wide level, equitable access to airspace, minimum flight path deviation, increased capacity to work in information rich environments with real time data leading to optimization of services.

2.2.3 Within this CNS/ATM environment, the new AIM concept is set to emerge along with a new nomenclature to designate the processing of aeronautical information.

2.2.4 The new requirements of ATM, RNAV, RNP and of the automated navigation systems demand new AIS requirements to ensure the quality and timely distribution of information.

2.2.5 The traditional function of AIS service will evolve into an information management service with changing duties and responsibilities. The provision of aeronautical information, with the integrity required by ATM, will not be able to remain based on a printed environment. AIS services should rapidly migrate towards electronic means and automated processing.

2.2.6 In the global ATM environment, AIS will become one of the more valuable and important facilitation services, ensuring the provision of up-to-date and quality aeronautical information for all phases of flight.

2.2.7 Aeronautical data will be exchanged in a completely electronic and networked environment; only that information needed as reference, temporary memorization or visual support for human operators will be printed. The creation of and application of a database will become a cornerstone in the development of a digital environment.

2.2.8 EUROCONTROL has developed a database using the Aeronautical Information Conceptual Model (AICM) and the Aeronautical Information Exchange Model (AIXM), and they are to date the only exchange models which are in use (AICM/AIXM). These models and their mutual inter-functionalities are the models that are currently suggested to be developed for AIM.

2.2.9 Another main aspect in this environment refers to the quality of information, which will be the responsibility of the ORIGINATOR, where subsequent handling will not compromise its quality.

2.2.10 Aeronautical information/data should be provided in real time and should be managed in an efficient manner in order to ensure the quality of the information supporting ATM operations.

2.2.11 For the transition from AIS to AIM in the CNS/ATM environment, it is necessary that ICAO update Annexes 4 and 15 with the new standards and methods on the provision, electronic storage, in-line access and maintenance of information and aeronautical charts.

2.3 Transition Towards AIM Strategy

2.3.1 It is necessary to develop and implement a strategy ensuring the gradual implementation of AIM in each one of the CAR/SAM States. The goal will be to identify the important requirements and components of a capable and sufficient aeronautical information management system to support the demands of CNS/ATM navigation.

2.3.2 When developing this strategy, its scope must be considered, and all areas of AIS (publications, NOF and AD AIS Units) should be involved, covering all the phases of flight.

2.3.3 Objectives and strategic actions to be developed for the transition of AIS to AIM.

2.3.3.1 Within this strategy, the main strategic objectives in order to attain an adequate transition towards AIM should be defined. These could include the following:

- Establish AIM as the central ATM process.
- Ensure the provision and availability of up-to date and quality aeronautical information for all phases of flight.
- Convert from paper publication of aeronautical information products to electronic format provision of information of each element of aeronautical information.
- Adopt procedures, frameworks and contents of harmonized databases on a global basis in a fully-digitized aeronautical information environment.
- Define the necessary human resources to ensure the future AIM environment.
- Resolve the intellectual property, financial, legal, organizational and institutional aspects associated with AIM handling.

2.3.4 In order to attain these strategic objectives, it is necessary to carry out strategic actions such as:

- Keep and improve the Quality Management System implemented and certified by the AIS service and be able to insert it into the Safety Management System (SMS) applicable to AIS according to ATM.
- Planning and development of the electronic AIP.
- Review the current NOTAM concept, in view that AIM will allow automatic access to databases.
- Study, plan and process the availability of terrain and obstacles data, as well as electronic aeronautical charts and charts databases in digital format.
- Define the scope, nature and presentation methods of aeronautical information, taking into account modifications and new requirements.
- Diversify and extend the means of access to aeronautical information auto-briefing.
- Planning and implementation of AIM transition training concurrent with traditional AIS service training while they coexist.

- Promote granting licenses to AIS personnel and develop the study and application of requirements for hiring new personnel.
- Project a harmonious framework of the AIS service in the AIM environment and the link with other fields within ATM.
- Propose using the expanded development of AIXM and AICM for the adoption of a global database.
- Identify the need to amend the ICAO SARPs as a requirement to attain the objectives so that it may progress through ICAO's mechanisms.

- END -