



Agenda Item 3: Activities for the development of the air navigation systems/services
3.1 Aeronautical Information Services (AIS/MAP)

REPORT OF THE C/CAR AIS/MAP TASK FORCE

(Presented by the C/CAR AIS/MAP Task Force Rapporteur)

SUMMARY

This Working paper presents the current status of the Work Programme to be developed by the AIS/MAP Task Force.

References:

- Report of the C/CAR WG/4 meeting (Santo Domingo, Dominican Republic, February 2004).
- Report of the C/CAR WG/5 Meeting (Mexico City, Mexico, February 2005).
- Report of the AIS/MAP/SG/9 Meeting (Santo Domingo, Dominican Republic, June 2005)
- Report of the GREPECAS/13 Meeting (Santiago, Chile, November 2005).

1. Introduction

1.1 The C/CAR AIS/MAP Task Force was activated at the C/CAR WG/4 Meeting, where the Conclusions and Decisions of the previous C/CAR WG Meetings were reviewed, and it was considered that there were items pending solution concerning the AIS/MAP of the Central Caribbean, which should be undertaken through the activation of a Task Force, and therefore, the Work programme and the Terms of reference for this Group were developed, as shown in **Appendix A** to this working paper.

1.2 The main objectives of this Group are the planning and implementation for the development concerning the Automation of the Aeronautical Information Services in the Central Caribbean, databases processing and aeronautical information integrated documentation processing, as well as the standardization of aeronautical charts and their evolution towards rendering information services in electronic formats and Quality assurance programmes, proposing action plans and contributing to the coordination and follow-up of these matters.

2. Discussion

2.1 Analysis of the Work programme of the Task Force:

2.1.1 The Work programme of this Group is composed by a total of seven tasks to be fulfilled with different deadlines. The following is a list of each one of them with a brief reference of their fulfillment status:

2.1.2 *Task No. 1. Resolve, under the ICAO NACC Office coordination, the discrepancies of the WGS-84 coordinates of common points in the adjacent FIRs, published in the AIPs of the States/Territories of the Central Caribbean and their adjacent regions.*

2.1.2.1 To date, no information indicates that these discrepancies in the area have been resolved, nor the Group counts with the data issued by ICAO Headquarters. In the case of Cuba, the harmonization with the Merida, Miami, Cenamer, and Kingston FIRs/CTAs was carried out.

2.1.3 *Task No. 2. Contribute to the coordination and follow-up of the total implementation of WGS-84 in the States/Territories in the Central Caribbean.*

2.1.3.1 At the NACC/DCA/2 Meeting, it was reported that all the Caribbean States have finalized the WGS-84 World Geodetic System. The only pending point is the harmonization of the bordering FIRs coordinates. To that end, Conclusion 2/2 - *Proposal for the Execution of a WGS-84 Special Implementation Project (SIP) for the CAR Region*, was approved

2.1.4 *Task No. 3. Carry out the coordination, assistance and follow-up the implementation of a standard AIS/MAP Quality Assurance System, in the Central Caribbean States/Territories.*

2.1.4.1 As stated in the Report of the GREPECAS/13 Meeting, this is a priority task for AIS/MAP. The Rapporteur of the C/CAR AIS/MAP Task Force sent a query to the States so that they notify their level of implementation of the Quality Management System. The related form is show in **Appendix B** to this paper.

2.1.4.2 Conclusion 13/38 - *Guidance Manual for the Implementation of an AIS/MAP Quality System in the CAR/SAM Regions* was recently approved by the GREPECAS/13 Meeting. Likewise, and complying with Conclusion 13/39 aimed at ensuring the implementation of these systems, two Quality Seminars were held in Santo Domingo and Peru respectively, the last quarter of year 2005. The following C/CAR States/Territories participated at these Seminars: Cuba, Dominican Republic, Haiti and Netherlands Antilles. During these Seminars, all the guidelines to apply and implement the Guidance Manual for the Implementation of an AIS/MAP Quality System in the CAR/SAM Regions were provided.

2.1.5 *Task No. 4. Impel, with the assistance of the ICAO NACC Office, training actions related with the correct application and effective compliance with the quality requirements of the aeronautical data established in the ICAO Annexes 15, 11 and 14, in support of the AIS/MAP Quality Management System.*

2.1.5.1 GREPECAS/13 approved Conclusion 13/40 - *Seminars on the New Standards derived from the Amendments to Annexes 4 and 15 in line with the Development of CNS/ATM Systems in the CAR/SAM Regions*, where the importance of holding seminars was highlighted, for training on comprehension and interpretation of the requirement tables of quality of aeronautical data and electronic data on the field and obstacles, as well as on any other important matter pertaining to the new ICAO standards.

2.1.5.2 It may be considered that actions thereupon have been taken, in view that for this year 2006 ICAO has scheduled the “ICAO Annexes 4/15 AIM Seminar” to be held from 25 to 29 September in Colombia. In this forum the new requirements on the quality of aeronautical data established in the foregoing Annexes should be clarified and consolidated, and the civil aviation administrations of the Subregion should seriously consider the participation of AIS/MAP officers in this event.

2.1.6 *Task No. 5. Recommend the necessary actions to develop and assist States/Territories with implementing the AIS Automation Plan approved for the Central Caribbean, and developing the relevant databases.*

2.1.6.1 At the NACC/DCA/2 Meeting, the President of the Council of ICAO, Dr Assad Kotaite, informed that he would keep communicating with the members of the Council and with the ICAO NACC Office to help formalize a regional co-operation project to help solving the deficiencies related with the implementation of the elements relating with AIS, among which the following stand out:

- Digital development of aeronautical charts for visual or instrumental navigation
- Quality assurance
- Automation
- Diffusion of AIPs by electronic means
- Implementation and harmonization of WGS-84 coordinates

2.1.6.2 During the GREPECAS/13 Meeting, it was reported that ICAO would have the global model for the exchange of aeronautical information/data exchange ready in 2007, and therefore, ICAO was urged to define the foregoing Model, as well as the corresponding guidelines as soon as possible.

2.1.6.3 Notwithstanding, several proposals were generated by the C/CAR Meetings and GREPECAS aimed at developing actions for the implementation of NOTAM Databanks, as a previous step towards the integral AIS automation.

2.1.7 *Task No. 6. Review, propose actions and follow up the implementation of AIS/MAP requirements established in the CAR/SAM ANP and in GREPECAS conclusions.*

2.1.7.1 The Table of Deficiencies controls the follow-up of the implementation of AIS/MAP requirements established in the ANP, on a permanent basis.

2.1.8 *Task No. 7. Study the elements of human factors applied to the AIS/MAP, in accordance with the AIS/MAP/SG/9 Meeting results.*

2.1.8.1 GREPECAS/13 Meeting adopted Conclusion 13/51 - *Application of the Human Factors Principles to Aeronautical Information Management*, considering that the AIS/MAP Subgroup begin the necessary actions for the development of the principles of human factors in aeronautical information management and their application in the respective AIS/MAP services. The need for developing a Manual containing guidelines on human factors and a Plan for their implementation was also posed, a programme in coordination with the ICAO Regional Offices and the States/Territories/International Organizations, all these activities aimed at guiding and analyzing the impact of human factors on the new air navigation systems. The AIS/MAP Quality Management Task Force of the GREPECAS AIS/MAP Subgroup, in its new Terms of Reference and Work Programme, and in compliance with the requirements established in Standard ISO 9001:2000 concerning Human resources management, has foreseen the development of pertinent guidelines for determining the proficiency of AIS/MAP personnel based on the appropriate education, training, skills and experience.

2.2 In order to foster the implementation and fulfillment of the Work Programme of this Task Force, **Appendix C** to this Working Paper presents the main tasks to be finalized by the C/CAR States/Territories as soon as possible. This form might be distributed through e-mail to all the C/CAR States/Territories in the first week of March 2006, if approved by this Meeting.

3. ***Suggested action***

3.1 The Meeting is invited to:

- a) note the information container in this Working paper;
- b) assess the contents of Appendix C for its approval in order that it be circulated to all the C/CAR States/Territories in order to obtain a response by 3 April 2006, and
- c) submit for consideration by the Meeting, the approval of the following Draft Conclusion to be referred to the Eighth Meeting of Directors of Civil Aviation of the Central Caribbean:

DRAFT

CONCLUSION 6/X

PARTICIPATION OF AIS/MAP OFFICERS IN THE SEMINAR ON CHANGES TO ANNEXES 4 AND 15 AND AERONAUTICAL INFORMATION MANAGEMENT

That, in accordance with the ICAO NACC Office Meeting/Seminars/Courses and Workshops Schedule, Civil Aviation Authorities of the C/CAR States/Territories/International Organizations consider in their Training Plans the participation of AIS/MAP officers in the Seminar on Changes to Annexes 4 and 15 and Aeronautical Information Management (AIM), scheduled for September 2006 in order to ensure the insertion of AIS/MAP in the CNS/ATM Systems.

APPENDIX A

C/CAR AIS/MAP TASK FORCE

1 Terms of Reference:

- a) To examine on a continual basis the sub-regional problems in the fields of Air Navigation related to AIS/MAP of States/Territories within the geographical limits of the Curaçao, Havana, Kingston, Miami Oceanic, Houston Oceanic, Nassau, Port-au-Prince, and Santo Domingo FIRs;
- b) To foster , coordinate and follow-up the implementation of the AIS/MAP requirements established in the CAR/SAM Air Navigation Plan of the States/Territories in the area of responsibility of the C/CAR WG, as well as the compliance with GREPECAS conclusions taking into account the ICAO SARPs;
- c) To identify and propose corrective actions to the AIS/MAP deficiencies affecting international civil aviation in the area of responsibility of the C/CAR WG; and
- d) To act as advisor group, within the C/CAR WG, for the Meeting of Directors of Civil Aviation in AIS/MAP aspects, and follow-up the implementation of the Conclusions approved by them in these areas.

2 Work Programme

No.	Task	Priority	Completion
1	Resolve, under the ICAO NACC Office coordination, the discrepancies of the WGS-84 coordinates of common points in the adjacent FIRs, published in the AIPs of the States/Territories of the Central Caribbean and their adjacent regions.	A	NACC/DCA/2
2	Contribute to the coordination and follow-up of the total implementation of WGS-84 in the States/Territories in the Central Caribbean.	A	NACC/DCA/2
3	Carry out the coordination, assistance and follow-up the implementation of a standard AIS/MAP Quality Assurance System, in the Central Caribbean States/Territories.	A	C/CAR WG/6
4	Impel, with the assistance of the ICAO NACC Office, training actions related with the correct application and effective compliance with the quality requirements of the aeronautical data established in the ICAO Annexes 15, 11 and 14, in support of the AIS/MAP Quality Management System.	A	C/CAR WG/7
5	Recommend the necessary actions to develop and assist States/Territories with implementing the AIS Automation Plan approved for the Central Caribbean, and developing the relevant databases.	A	Permanent
6	Review, propose actions and follow up the implementation of AIS/MAP requirements established in the CAR/SAM ANP and in GREPECAS conclusions.	A	Permanent
7	Study the elements of human factors applied to the AIS/MAP, in accordance with the AIS/MAP/SG/9 Meeting results.	A	C/CAR WG/6

APPENDIX B

**UPDATING OF THE QUALITY MANAGEMENT SYSTEM IMPLEMENTATION
OF THE C/CAR STATES
ACTUALIZACIÓN DE LOS ESTADOS C/CAR EN LA IMPLANTACIÓN
DE UN SISTEMA DE GESTIÓN DE LA CALIDAD**

ESTADOS/ STATES	IMPLANTADO/ IMPLEMENTED	NO IMPLANTADO / NOT IMPLEMENTED	EN PROCESO DE IMPLANTACIÓN / UNDER IMPLEMENTATION PROCESS	NECESIDAD ASESORÍA DE TERCEROS / THIRD PARTY ASSESSMENT REQUIRED	OBSERVACIONES / REMARKS
Antillas Holandesas / Netherlands Antilles					
Aruba / Aruba					
Bahamas					
Cuba / Cuba	X				
Estados Unidos / United States					
Haiti / Haiti					
Islas Caimanes / Cayman Islands					
Islas Turcas y Caicos / Turks and Caicos Islands					
Jamaica					
México					
República Dominicana / Dominican Republic					

APPENDIX C

UPDATING OF THE STATUS OF THE C/CAR AIS/MAP TASK FORCE WORK PROGRAMME TASKS

STATES/ TERRITORIES	Harmonization with the WGS-84 bordering points coordinates			Implementation of WGS-84			Implementation of a Quality Management System			Implementation of the AIS Automation Plan			Updating of the deficiencies tables			Remarks
	Not started	In process	Finalized	Not started	In process	Finalized	Not started	In process	Finalized	Not started	In process	Finalized	Not started	In process	Finalized	
Aruba																
Bahamas																
Cayman Islands																
Cuba																
Dominican Republic																
Haiti																
Jamaica																
Mexico																
Netherlands Antilles																
Turks and Caicos Islands																
United States																

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