



FINAL VERSION

**INTERNATIONAL CIVIL AVIATION ORGANIZATION
NORTH AMERICAN, CENTRAL AMERICAN AND CARIBBEAN OFFICE**

**SIXTH CENTRAL CARIBBEAN
WORKING GROUP MEETING**

C/CAR WG/6

SUMMARY OF DISCUSSIONS

HAVANA, CUBA, 20 TO 24 FEBRUARY 2006

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of ICAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

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HISTORICAL

ii.1 Place and Date of the Meeting

The Sixth Meeting of the Central Caribbean Working Group (C/CAR WG/6) was held at the Meliá Habana hotel in Havana, Cuba, from 20 to 24 February 2006.

ii.2 Opening Ceremony

The Meeting was opened by Argimiro Ojeda, Eng., Vice-President of the Instituto de Aeronáutica Civil de Cuba (IACC), who welcomed and thanked the presence of the participants, gave an overview of the scope of the Meeting's Agenda, pointed out that the C/CAR WG Working Group needs to continue its efforts towards the development of air navigation systems in the Central Caribbean and, then, officially opened the Meeting.

ii.3 Organization of the Meeting

The Meeting was chaired by Mr. Jacques Boursiquot, Haiti, Chairman of the Central Caribbean Working Group, and Ms. Mirta Crespo, Cuba, was elected Vice-Chairperson for the duration of this Meeting. Mr. Víctor Hernández, Regional Officer, Air Traffic Management and Search and Rescue acted as Secretary of the Meeting, assisted by Mr. Aldo Martínez, Regional Officer Communications, Navigation and Surveillance, both from the ICAO NACC Regional Office.

ii.4 Working Languages

The working languages of the Meeting were Spanish and English. The Working Papers and Summary of Discussions of the Meeting were available to participants in both languages.

ii.5 **Agenda**

The Meeting adopted the following agenda:

- Agenda Item 1: Follow-up on the actions taken concerning the valid Conclusions/Decisions of previous Meetings**
- 1.1 Review of the Conclusions/Decisions of the C/CAR WG.**
 - 1.2 Review of the Conclusions/Decisions of the NACC/DCA/2 meeting concerning the C/CAR WG.**
 - 1.3 Review of Conclusions of the GREPECAS/13 meeting concerning the C/CAR WG.**
- Agenda Item 2: Review of the air navigation deficiencies and of the Action Plans to resolve them**
- Agenda Item 3: Activities for the development of the air navigation systems/services**
- 3.1 Aeronautical Information Services (AIS/MAP)**
 - 3.2 Air Traffic Management (ATM)**
 - 3.3 Communications, Navigation and Surveillance (CNS)**
 - 3.4 CNS/ATM**
 - 3.5 Aeronautical Meteorology (MET)**
 - 3.6 Search and Rescue (SAR)**
- Agenda Item 4: Safety Oversight activities**
- Agenda Item 5: Human Resources and Training**
- Agenda Item 6: Review of the Terms of Reference and Work Programme**
- Agenda Item 7: Other business**

ii.6 Schedule and Work Mode

The Meeting agreed to hold its daily sessions from 09:00 to 14:30 hours, with adequate breaks.

ii.7 Attendance

The Meeting was attended by 41 participants from 7 States/Territories/International Organization of the Central Caribbean, 1 participant from one State of the SAM Region (observer) and 1 observer from ARINC, making a total of 43 delegates. The Meeting regretted the absence of the following States/Territories members of the C/CAR WG: Aruba, Bahamas, Netherlands Antilles and Turks and Caicos Islands. A list of participants is shown in pages iii-1 to iii-8.

ii.8 Conclusions and Decisions

The Central Caribbean Working Group recorded its activities as Draft Conclusions and Decisions as follows:

DRAFT

CONCLUSIONS: Activities requiring a communication to States/Territories/International Organizations and/or endorsement by Central Caribbean Directors of Civil Aviation (C/CAR DCAs)

DECISIONS: Internal activities of the Central Caribbean Working Group (C/CAR WG)

**LIST OF DRAFT CONCLUSIONS AND DECISIONS ADOPTED BY THE C/CAR/WG/6
MEETING**

NO.	DRAFT CONCLUSIONS	PAGE NO.
6/1	FINALIZATION OF THE HARMONIZATION PROCESS OF THE WGS-84 COORDINATES AT THE FIR BOUNDARIES	3-5
6/2	ESTABLISHMENT OF ATS SAFETY MANAGEMENT MEASURES	3-8
6/3	ATFM PROCEDURES DEVELOPMENT	3-10
6/4	ATFM OPERATIONAL AGREEMENTS	3-10
6/5	PERSONNEL INVOLVED IN ATFM ACTIVITIES	3-11
6/6	FINALIZATION OF THE IMPLEMENTATION PROCESS OF THE MEVA II NETWORK AND INTERCONNECTION/INTEROPERABILITY WITH REDDIG	3-13
6/8	C/CAR PRELIMINARY IMPLEMENTATION PLAN OF THE ATN AND GROUND-GROUND APPLICATIONS	3-14

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No.	DRAFT CONCLUSIONS	PAGE No.
6/10	AIR-GROUND DATA LINKS REGIONAL PLAN UPDATE AND ACTIONS FOR ITS IMPLEMENTATION	3-17
6/11	SHORT-TERM IMPLEMENTATION OF THE AVAILABLE GNSS CAPABILITIES	3-18
6/12	SOLUTION TO THE CONFLICTS PRODUCED BY THE SAME IDENTIFIERS USED IN VOR/DME STATIONS OF DOMINICAN REPUBLIC AND VENEZUELA	3-19
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6/14	ACTION PLAN FOR THE ESTABLISHMENT OF BILATERAL AGREEMENTS FOR RADAR DATA SHARING	3-20
6/15	FIRST PHASE OF BILATERAL RADAR DATA SHARING	3-21
6/16	SEMINAR ON RADAR DATA SHARING	3-23
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6/19	ADOPTION OF THE IAMSAR MANUAL FOR THE DEVELOPMENT OF NATIONAL SAR MANUALS OF THE CENTRAL CARIBBEAN STATES/TERRITORIES	3-28
6/20	ESTABLISHMENT OF SEARCH AND RESCUE (SAR) AGREEMENTS BETWEEN THE CENTRAL CARIBBEAN RCCs	3-29
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No.	DECISIONS	PAGE NO.
6/7	STUDY ON THE INITIAL C/CAR ATN IMPLEMENTATION PLAN	3-14
6/9	DISBANDING OF THE C/CAR VHF/AMS COVERAGE TASK FORCE	3-15
6/23	PROVISION OF INFORMATION TO THE HUMAN RESOURCES AND TRAINING TASK FORCE BY THE C/CAR WG MEMBERS	5-3
6/24	C/CAR WG TASK FORCES TERMS OF REFERENCE AND WORK PROGRAMME	6-1

ii.9 **List of Working, Information and Discussion Papers**

Working Papers

Number	Agenda Item	Title	Date	Presented by
WP/01	---	Agenda and Schedule	14/12/05	Secretariat
WP/02	1.1	Status of the Outstanding C/CAR/WG Conclusions and Decisions	07/02/06	Secretariat
WP/03	2	Specific Air Navigation Planning and Implementation Deficiencies in the Central Caribbean	/06	Secretariat
WP/04	3.1	Report of the C/CAR AIS/MAP Task Force	13/01/06	Rapporteur
WP/05	3.2	ATM Developments	01/02/06	Secretariat
WP/06	3.2	Implementation of Air traffic flow management (ATFM) in the NAM/CAR Regions	08/02/06	Secretariat
WP/07	3.2	Implementation of ATS Routes	03/02/06	Haiti
WP/08	3.3	Follow-Up on the Development of the Communication Systems	16/01/06	Secretariat
WP/09	3.3	Follow-up to the Evolutionary implementation of the Navigation Systems	18/01/06	Secretariat
WP/10	3.3	Follow-Up to the Implementation of the Surveillance Systems	18/01/06	Secretariat
WP/11	3.4	Follow-Up To The Implementation of CNS/ATM Systems in the Central Caribbean	27/01/06	Secretariat
WP/12	3.5	Current status of CNS/ATM systems meteorological components	10/02/06	Secretariat
WP/13	3.5	Report of the C/CAR MET Task Force	12/01/06	Rapporteur
WP/14	3.6	Proposal for Adoption of Emergency Locator Transmitters (ELTs) in 406 MHZ for the SAR Service of Central Caribbean States	19/12/05	Rapporteur
WP/15	3.6	Proposal for Adoption of the IAMSAR Manual as the National SAR Manual of the Central Caribbean States/Territories	19/12/05	Rapporteur
WP/16	3.6	C/CAR SAR Plan Project	04/01/06	Rapporteur
WP/17	4	Progress Report on the implementation of the ICAO Universal Safety Oversight Audit Programme	23/01/06	Secretariat

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Number	Agenda Item	Title	Date	Presented by
WP/18	5	Report of the Human Resources and Training Planning Task Force	13/01/06	Secretariat
WP/19	6	Terms of Reference and Work Programme of the C/CAR WG	30/01/06	Secretariat
WP/20	3.3	Status of Implementation of MEVA II in the Federal Aviation Administration (FAA)	13/01/06	United States
WP/21	3.2	Implementation of ATS Routes	13/01/06	Cuba
WP/22	3.2	Implementation of Standardized Departure/Arrival Routes (SID/STAR) for Area Navigation (RNAV) Routes	13/01/06	Cuba
WP/23	3.3	Actions Proposals for a faster implementation of Radar Data Sharing in the Central Caribbean	12/01/06	Cuba
WP/24	3.3	Status of the VHF/AMS Communications in the Republic of Cuba	12/01/06	Cuba
WP/25	3.3	Status of implementation of MEVA II Network in Haiti	03/02/06	Haiti
WP/26	3.6	SAR Implementation Project in Haiti	03/02/06	Haiti

Information Papers

Number	Agenda Item	Title	Date	Presented by
IP/01	--	General Information	22/12/05	Secretariat
IP/02 Rev.	--	List of Working and Information Papers	13/02/06	Secretariat
IP/03	1.2	Conclusions of the NACC/DCA/2 meeting relevant to the C/CAR WG	02/02/06	Secretariat
IP/04	1.3	Conclusions of the GREPECAS/13 Meeting relevant to the C/CAR WG	02/02/06	Secretariat
IP/05	7	Tentative Schedule – 2006 ICAO NACC Office Meetings, Seminars, Courses and Workshop	01/02/06	Secretariat
IP/06	7.1	Rotation Programme for Future C/CAR Working Group Meetings	14/12/05	Secretariat
IP/07	4	Overseas Territories Aviation Requirements (OTARs)	03/02/06	United Kingdom
IP/08	1.1	Status of Implementation of C/CAR Conclusions / Decisions in Haiti	03/02/06	Haiti
NI/09	3.3	Sistema de Radares Secundarios de Vigilancia en Cuba <i>(Available only en Spanish)</i>	28/01/06	Cuba
NI/10 Rev.	2	Actualización del Plan de Acción para eliminar las Deficiencias de Cuba a la Navegación Aérea <i>(Available only en Spanish)</i>	13/02/06	Cuba
NI/11	1.1 1.2 1.3	Estado de Cumplimiento por Cuba de las Conclusiones y Decisiones del Caribe Central, la NACC/DCA/2 y GREPECAS/13 <i>(Available only en Spanish)</i>	09/02/06	Cuba
NI/12	1.3	Base de Datos sobre la Capacidad del Equipo de Navegación de las Aeronaves <i>(Available only en Spanish)</i>	10/02/06	IATA
IP/13	3.3	Radar Data Sharing	13/02/06	Rapporteur
NI/14	3.6	El Sistema de Búsqueda y Salvamento en la FIR Habana <i>(Available only en Spanish)</i>	15/02/06	Cuba

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Discussion Papers

Number	Agenda Item	Title	Date	Presented by
DP/01	3.3	Report of the COM Ad hoc Group	22/02/06	Rapporteur
DP/02.	3.3	Report of the Surveillance Ad hoc Group	22/02/06	Rapporteur
DP/03	3.5	Report of the MET Ad hoc Group	22/02/06	Rapporteur
DP/04	3.6	Report of the SAR Ad hoc Group	22/02/06	Rapporteur
DP/05	3.1	Report of the AIS/MAP Ad hoc Group	22/02/06	Rapporteur
DP/06	3.2	Report of the ATM Ad hoc Group	22/02/06	Rapporteur
DP/07	5	Report of the Human Resources Ad hoc Group	22/02/06	Rapporteur

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SIXTH CENTRAL CARIBBEAN WORKING GROUP MEETING (C/CAR WG/6)
SUMMARY OF DISCUSSIONS
LIST OF PARTICIPANTS

iii - 8

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Agenda Item 1: Follow-up on the actions taken concerning the valid Conclusions/Decisions of previous Meetings

1. Cuba and Haiti presented the status of their compliance to the conclusions and decisions of the previous meetings of the C/CAR WG, NACC/DCA and GREPECAS, which are of vital importance for the progress of the air navigation services in the C/CAR.

1.1 Review of the Conclusions/Decisions of the C/CAR WG

1.1.1 The Secretariat presented WP/02 with the status of the outstanding conclusions and decisions of the previous meetings of the C/CAR WG, inviting the Meeting to notify on the updated status of their implementation.

1.1.2 The status of the conclusions and decisions of the previous C/CAR WG meetings approved by the C/CAR/DCA meetings, is presented in **Appendix A** to this part of the Report.

1.2 Review of the Conclusions/Decisions of the NACC/DCA/2 concerning the C/CAR WG.

1.3 Review of the Conclusions/Decisions of the GREPECAS/13 concerning the C/CAR WG

1.2.1 The Secretariat presented Information Paper 03 and 04 on the Conclusions of the NACC/DCA/2 and GREPECAS/13 Meetings concerning to the work of the C/CAR/WG, for the Meeting's information.

1.4 Data base on Aircrafts Communication and Navigation equipment capacity

1.4.1 In compliance with Conclusion 13/53 of GREPECAS, the Secretariat presented an IATA's data base on aircrafts communication and navigation equipment capacity operating in the CAR/SAM Regions, included in **Appendix B** to this part of the Report. The Meeting considered very valuable the information provided for the implementation studies currently carried out in the Region.

**STATUS OF OUTSTANDING CONCLUSIONS AND DECISIONS OF PREVIOUS MEETINGS OF THE C/CAR WORKING GROUP
CONCLUSIONS REVIEWED BY THE DIRECTORS OF CIVIL AVIATION**

FIELD	CONCLUSION	ACTION FOR	COMMENTS AND FOLLOW-UP	STATUS
MET	CONCLUSION 3/12 UPDATING OF FASID TABLES MET 2 AND MET 2A CONCERNING THE CENTRAL CARIBBEAN That the Civil Aviation Authorities of the States/Territories of the Central Caribbean, in coordination with their respective MET authorities, a) review the corresponding parts of the FASID Tables MET 2 and MET 2A of the FASID CAR/SAM, in order to update their requirements; and b) present to the ICAO NACC Regional Office the proposals for amendment duly documented, making use of the form included in Appendix A to this part of the Report by 28 November 2003.	States/ Territories of the C/CAR	The ICAO NACC Regional Office has not received other proposals for amendment. Cuba sent updated information.	Valid
ATM	CONCLUSION 4/3 DEVELOPMENT OF ATS QUALITY ASSURANCE PROGRAMMES AND ATS CONTINGENCY PLANS IN THE CENTRAL CARIBBEAN That States/Territories send to the ICAO NACC Regional Office by 30 June 2004: a) the status of implementation of the ATS Quality Assurance Programmes; b) the measures towards the solution of ATS incidents; and c) ATS contingency plans.	States/ Territories of the C/CAR	b) Incorporated in the Terms of Reference of the C/CAR WG c) Superseded by Conclusion 7/8 of the C/CAR DCA/7 Meeting.	a) Valid
CNS	CONCLUSION 4/8 ATN/AMHS TRAINING That, ICAO, if possible, coordinate with States/Territories to hold an ATN/AMHS training event in the 2004-2005 timeframe.	States/ Territories of the C/CAR	In compliance with this Conclusion and Conclusion 12/41 of GREPECAS, ICAO has scheduled an ATN Seminar for the last quarter of 2006.	Valid

FIELD	CONCLUSION	ACTION FOR	COMMENTS AND FOLLOW-UP	STATUS
AIS	CONCLUSION 4/12 FOLLOW-UP TO THE TOTAL IMPLEMENTATION OF WGS-84 Replaced by Conclusion: CONCLUSION 7/9 TOTAL IMPLEMENTATION OF WGS-84 Considering that the RNAV and RNP systems, including RVSM, are in an advanced implementation phase, and that for their efficient application the strict accuracy and integrity of data on which they are based is required, the States/Territories of the C/CAR agree to: a) carry out a greater and more effective follow-up to the total implementation of the WGS-84 System; b) establish 30 November 2004 as the deadline for the total implementation of WGS-84 in the States/Territories of the C/CAR; c) develop technical assistance agreements of which the experience obtained by the States that have already implemented the system in their territories may be taken advantage; d) designate the C/CAR WG to electronically carry out the task of preparing and completing the tables included in the Appendix D to this part of the Report, so that States/Territories with adjacent FIRs determine bilaterally the geographical coordinates of the common points at the boundaries of the FIRs, as well as its standardization and publication by 30 November 2004; and e) request the Regional Office to act as mediator for the quick resolution of the cases where discrepancies may arise.	States/ Territories of the C/CAR	See Conclusion 5/3 of the C/CAR WG/5. A follow up will be carried out on this issue through the Conclusion.	Replaced by Conclusion 5/3
CNS/ ATM	CONCLUSION 4/18 C/CAR CNS/ATM IMPLEMENTATION PLAN That, ICAO coordinate with States/Territories to study options and prepare a proposed action plan for the development of a C/CAR CNS/ATM Implementation Plan to be presented to the C/CAR/DCA/7 Meeting and guide the C/CAR/WG in carrying out this assigned task.	ICAO	Accepted by the C/CAR DCA/7 Meeting without modifications, the Action Plan will be incorporated in the Work Programme of the C/CAR WG	Completed

FIELD	CONCLUSION	ACTION FOR	COMMENTS AND FOLLOW-UP	STATUS
GEN	CONCLUSION 5/1 AIR NAVIGATION DEFICIENCIES That the Civil Aviation Authorities of the States and Territories of the Central Caribbean: a) carefully review the Air Navigation Deficiencies identified in the Air Navigation Services and aerodromes under their jurisdiction; b) submit to the ICAO NACC Office the name of the person designated as Point of Contact (POC) for the access to the GREPECAS Air Navigation Deficiencies Database (GANDD) by 30 April 2005 ; and c) correct the Air Navigation Deficiencies in their respective States and Territories considering the use of the database available at the ICAO NACC Office web page.	States and Territories of the Central Caribbean	b) Only Cuba, Haiti Dominican Republic, United Kingdom, United States, COCESNA and IFALPA have provided the name of the point of contact. Cuba: Finalized. It presented an updated action Plan and informed on the official point of contact for GANDD. It also reported that the systematic work to eliminate, as possible its deficiencies are carried out.	Valid
AIS	CONCLUSION 5/2 NEED FOR EFFECTIVE ACTIONS IN AIS/MAP ASPECTS That the States/Territories, in order to facilitate the development of the CNS/ATM systems in accordance with the Global Air Navigation Plan and the Recommendations of the Eleventh Air Navigation Conference and, in order to accelerate and materialize the implementation of AIS/MAP elements: a) take necessary measures for implementing those AIS/MAP aspects required to develop the global ATM operational concept, taking into account that the collaborative decision-making (CDM) requires the availability of high quality aeronautical information sources; b) develop technical assistance bilateral agreements directly with those States that have already efficiently implemented such elements and have offered to provide assistance; and c) if it is deemed necessary, take into account the mediation of the NACC Regional Office to endorse the corresponding agreements.	States/ Territories of the Central Caribbean	Delegates informed on the actions taken by their respective Administrations. Haiti informed that a project has been initiated in order to modernize the AIS section. Cuba: Finalized.	Valid

FIELD	CONCLUSION	ACTION FOR	COMMENTS AND FOLLOW-UP	STATUS
AIS	CONCLUSION 5/3 FOLLOW-UP TO THE IMPLEMENTATION OF WGS-84 COORDINATES AT THE BORDERS OF THE FIRs That the States/Territories that have not determined their bordering geographical coordinates at their respective FIRs, as a follow-up and fulfillment of Conclusion 7/9 of the C/CAR DCA/7 Meeting, and under the coordination of the NACC Regional Office and the C/CAR AIS/MAP Task Force of the C/CAR WG: a) designate a point of contact in each Administration for the coordination among States and Territories informing the NACC Office of the name of the incumbent by 30 April 2005; b) harmonize their border coordinates in accordance with the information in the ICAO database that will be distributed by the NACC Regional Office, as appropriate; and c) inform the NACC Office and the C/CAR AIS/MAP Task Force on the agreements reached on this matter by 5 September 2005.	States/ Territories of the Central Caribbean	-Delegates informed on the actions taken by their respective Administrations on a) and b). Haiti informed that a point of contact has been designated and border coordinate harmonization is in effect with some States. -Regarding c) ICAO has been informed by Cuba on the agreements reached in this matter. Cuba: Finalized.	Valid
ATS	CONCLUSION 5/4 IMPLEMENTATION OF ATS ROUTES IN THE CENTRAL CARIBBEAN That ICAO NACC Office take action to coordinate with the States/Territories the concerned implementation and changes of ATS routes depicted in the Appendix B to this part of the Report, in order to initiate coordination for the proposal for amendment to the CAR/SAM ANP.	ICAO NACC Office	The corresponding coordination was carried out and the routes were included in the Proposal for Amendment SAM-05/03-ATM. Cuba: Finalized. Routes L417, L/UL347, UL599, A/UA890, R/UR506 were implemented within the Havana FIR in Sub regional coordination. Cuba presented a working paper on the next routes to be implemented.	Completed

FIELD	CONCLUSION	ACTION FOR	COMMENTS AND FOLLOW-UP	STATUS
CNS	CONCLUSION 5/6 COMPLIANCE WITH GREPECAS CONCLUSION 12/33 FOR THE PREPARATION AND SUPPORT TO ICAO POSITION AT THE ITU WRC-2007 That ICAO urge the States and International Organizations to comply with GREPECAS Conclusion 12/33 by, a) providing support and follow-up to the work of ICAO in the preparation and updating of ICAO position for the WRC-07; b) nominating a focal point or a person of contact with ICAO and with the national authority responsible for the radio-frequencies spectrum management for the coordination of the matters pertaining to the WRC-07; and c) actively participating at the Inter-American Telecommunications Commission (CITEL) of the Organization of American States (OAS) on the preparatory work for the WRC-2007.	States/International Organizations	This conclusion has been superseded with conclusions 2/13 of the NACC/DCA/2 Meeting and 13/89 of GREPECAS. This agenda item is dealt with under WP/08 of this Meeting. Cuba: Finalized. Cuba informed its focal point. A commission at a national level was created headed by the Ministry of Computer Science and Communications, in which a member of the IACC Directorate of Air Navigation participates, to support ICAO's position.	Superseded
CNS	CONCLUSION 5/7 INTERNATIONAL COORDINATION OF THE ASSIGNMENTS OF AERONAUTICAL FREQUENCIES That, in accordance with GREPECAS Conclusion 12/34, States and Territories are urged to coordinate all the aeronautical frequency assignments through the ICAO Regional Office.	States/Territories	It is expected that States have taken note of this conclusion. Cuba: Finalized.	Completed
CNS	CONCLUSION 5/8 ACTIONS TO AVOID AND RESOLVE THE INTERFERENCE PROBLEMS IN THE CNS SYSTEMS That, in order to avoid and resolve interference problems in the CNS systems, a) the States, Territories and International Organizations apply the measures listed in GREPECAS Conclusion 12/35, and the detected interference problems be urgently communicated to the ICAO Regional Office; and b) ICAO NACC Office establish coordination with United States to investigate and detect the source of the interference being produced in frequency 124.000 MHz assigned to Kingston ACC, as a basis for the application of corrective measures.	States/Territories of the Central Caribbean ICAO Regional Office	It is expected that the Civil Aviation Administrations noted action a). The ICAO office established coordination with United States. This agenda item is dealt with under WP/08 of this Meeting. Haiti informed that no interference has been surveyed in the CNS systems in Haiti. Cuba: Finalized.	Completed

FIELD	CONCLUSION	ACTION FOR	COMMENTS AND FOLLOW-UP	STATUS
CNS	CONCLUSION 5/10 INFORMATION REQUEST TO THE AIRSPACE USERS ON THE VHF COMMUNICATION COVERAGE STATUS IN THE CAR REGION That ICAO request information to IATA and IFALPA on the VHF voice communications coverage voids that they have detected in the CAR Region.	ICAO	The ICAO NACC Office has requested information to IATA and IFALPA. No response has been received.	Completed
CNS	CONCLUSION 5/11 PROPOSAL FOR AMENDMENT TO FASID TABLE CNS 2A WITH REGARD TO HAITI That ICAO process the proposal for amendment to FASID Table CNS 2A under Haiti, adding a voice frequency for area control service of the Port-au-Prince ACC.	ICAO	This proposal for amendment was channeled through the GREPECAS/13 Meeting.	Completed
CNS	CONCLUSION 5/12 INITIAL ACTION TO UPDATE THE CAR REGION PLAN TO IMPLEMENT VHF, HF AND SATELLITE DATA LINKS That, with the aim of updating the corresponding part of the VHF, HF and satellite data link requirements of the CNS 2A Table of the FASID: a) ICAO request IATA updated information on the projection in the time scale of aircraft capacity operating in the CAR Region; b) States, Territories and International Organizations participate in the programme of initial actions contained in Appendix F to this part of the Report; and c) the results of the actions in items a) and b) above be presented to the GREPECAS mechanism.	ICAO States and Territories of the Central Caribbean	The action indicated in pa. a) of this conclusion was carried out by the ICAO NACC Office. The follow-up of the rest of the actions were discussed through WP/08 of this Meeting. Cuba is in the disposition to participate and contribute in the initial actions contained in Appendix F to the C/CAR/WG/5/IF. Cuba's existing equipment its prepared for VDL Mode 2 data link. Coordination is being carried out with airspace users and the ACC Havana automated systems software provider to begin trial and demonstrations in 2007.	Valid
CNS	CONCLUSION 5/14 IMPROVEMENT OF SURVEILLANCE SERVICES IN ATS UNITS That all C/CAR States/Territories/ Organizations that require surveillance services in their ATS units and have not implemented radar services as yet, adopt an aggressive action plan for its implementation or study the feasibility to implement ADS or ADS – B.	States and Territories of the Central Caribbean	Cuba reported that it has implemented total coverage of secondary radar surveillance in the Havana FIR and coordination is carried out with the ACC Havana automated systems software provider to begin ADS-B trials and demonstrations in 2006.	Valid

FIELD	CONCLUSION	ACTION FOR	COMMENTS AND FOLLOW-UP	STATUS
CNS	CONCLUSION 5/15 ANALYSIS ON THE FEASIBILITY OF THE MEVA II NETWORK TO SUPPORT RADAR DATA CIRCUITS That, a) the NACC Office request the MEVA II TMG to perform a general analysis on the feasibility of the MEVA II Network to support radar data circuits; and b) depending on the analysis by the MEVA II TMG in accordance with item a) above, the States/Territories/Organizations who adopt a decision to implement circuits for the radar data exchange present in a timely fashion to the MEVA II TMG the details of the requirements of the circuits to switch their radar data systems for its analysis.	MEVA II TMG States and Territories of the Central Caribbean	This conclusion follow-up was dealt with under agenda item 3.3 of this Meeting. Cuba keeps its willingness to share radar data through bilateral agreements with States which so require. Based on the results of the ATM/CNS/SG/4 on ATM automation, and on the assessed ICD, and the recently held bilateral meeting with FAA, both States agreed to take the first steps on the radar data exchange between their respective ACCs. Points of contact were established for the initial coordination and it is expected to continue with other adjacent FIRs.	Valid
CNS	CONCLUSION 5/16 PROVISION OF RADAR EXPERTS TO THE RADAR DATA SHARING TASK FORCE That every State/Territories/International Organizations in charge with the provision of air traffic services within the C/CAR that is interested in radar data sharing provides adequate experts who assist to the work of the radar data sharing task force in order to help the Task Force to advance expeditiously in the execution of its tasks.	States and Territories/ International Organizations of the Central Caribbean	This conclusion follow-up was dealt with under agenda item 3.3 of this Meeting. Cuba: Finalized. Cuba provided its point of contact and it is supporting the work of the group by presenting documentation to the Meeting.	Valid
CNS	CONCLUSION 5/17 ASSESSMENT OF THE TRAINING NEEDS FOR RADAR DATA EXCHANGE That, based on a regional consultation through ICAO, States/Territories/International Organizations assess the need for providing training to their operational and technical personnel through an integrated regional solution, with a view to implementing radar services and/or radar data exchange.	States and Territories of the Central Caribbean	This conclusion follow-up was dealt with under agenda item 3.3 of this Meeting. With the acquired experience, Cuban CNS officers are willing to provide the required training for technical training needs on radar data exchange, if deemed convenient by the States of the Subregion.	Valid
CNS	CONCLUSION 5/19 DATA INTEGRITY OF THE RADAR SYSTEM IN RADAR DATA EXCHANGE That States/Territories/International Organizations implement an adequate system to ensure reliability of the service to the user and integrity of transmitted or received radar data.	States and Territories of the Central Caribbean	This conclusion was dealt with under agenda item 3.3 of this Meeting. Cuba: Finalized. Cuba presented and Information Paper on the radar system data integrity.	Valid

FIELD	CONCLUSION	ACTION FOR	COMMENTS AND FOLLOW-UP	STATUS
CNS	CONCLUSION 5/21 COMMENCEMENT OF THE RADAR DATA EXCHANGE PROGRAMMES That States/Territories/International Organizations who can benefit from radar data sharing start negotiations on a bilateral or multi-lateral basis to implement a radar data exchange programme, awaiting the further development of the system.	States/ Territories/Int ernational Organizations of the Central Caribbean	This conclusion follow-up was dealt with under agenda item 3.3 of this Meeting. Cuba, as member of the Radar Data Task Force presented WP/29 proposing an action plan to achieve radar data exchange bilateral agreements..	Valid
CNS/ ATM	CONCLUSION 5/22 SUB-REGIONAL ACTION FOR THE STUDY AND IMPLEMENTATION OF THE ADS AND ADS-B SYSTEMS That, a) with a view to the deployment of ADS and ADS-B systems in the Central Caribbean in the short-term, ICAO request information from IATA on the current avionics capacity and on their member airlines plans for the deployment of the use of ADS and ADS-B in the Caribbean and Central America; b) each State/Territory/International Organization of the Central Caribbean is urged to, - taking into account the operational requirements of its airspace, evaluate its respective radar coverage, its radars' useful life and the potentialities of covering empty spaces and substitute or replace the radar coverage with ADS or ADS-B; - evaluate and plan the existing and future ATC automated systems capacity in order to support ADS or ADS-B systems; - investigate and evaluate their policies related to the ADS and ADS-B data sharing with their respective neighbouring areas in which the position is provided by the same aircraft instead of being measure by the radars; and - consider the feasibility to apply ADS-B as a solution to the movement control in the airports surface.	States/ Territories/ International Organizations of the Central Caribbean ICAO	Was dealt with under agenda item 3.5 Cuba keeps its willingness to share radar data through bilateral agreements with States which so require. Based on the results of the ATM/CNS/SG/4 on ATM automation, and on the assessed ICD, and the recently held bilateral meeting with FAA, both States agreed to take the first steps on the data exchange between their respective ACCs. Point of contact were established for the initial coordination and it is expected to continue with other adjacent FIRs.	Valid
ATM	CONCLUSION 5/24 ATFM POINTS OF CONTACT IN THE CENTRAL CARIBBEAN That the States and Territories of the Central Caribbean provide to the ICAO NACC Office by 30 April 2005 the name of the person that will act as a point of contact for the ATFM studies, with a view to an early ATM evolution in the Central Caribbean.	States and Territories of the Central Caribbean	Only Cuba and Dominican Republic have provided the name of the PoC. Haiti informed that an ATFM point of contact will be forwarded to the NACC Office before 30 May 2006. Cuba: Finalized. Cuba provided its point of contact and it is willing to support the group's work	Valid

FIELD	CONCLUSION	ACTION FOR	COMMENTS AND FOLLOW-UP	STATUS
GNE	CONCLUSION 5/26 C/CAR WG TERMS OF REFERENCE AND WORK PROGRAMME That the C/CAR WG, adopt the revised Terms of Reference and Work Programme as presented in the Appendix to this part of the report.	C/CAR WG	They were adopted and approved by the Directors. Cuba is working on the compliance of this Conclusión.	Completed

DECISIONS

FIELD	DECISIONS	ACTION FOR	REMARKS AND FOLLOW-UP	STATUS	REQUIRED ACTION
CNS	DECISION 1/19 REVIEW/IMPLEMENTATION OF THE CNS 2A, CNS 2B, CNS 3 AND CNS 4A – FASID That the C/CAR Working Group as a follow-up of its immediate work; a) review the installation Plan and related services to the Aeronautical Mobile Service and the AMSS (Table CNS 2A), the HF Network Designators Table (Table CNS 2B), the Radio Navigation Aids Plan (Table CNS3), as well as Surveillance Systems (Table CNS 4A) all from the FASID; and b) analyze difficulties in the implementation in order to suggest all pertinent actions to complete the implementation.	C/CAR WG	This C/CAR WG Meeting, under agenda item 3.3 and WP/08 reviewed the Table CNS 2A of the FASID. The Table CNS 4A was reviewed in WP/10.	Valid	Follow-up
CNS	DECISION 1/27 ESTABLISHMENT OF A RADAR DATA SHARING TASK FORCE FOR THE CENTRAL CARIBBEAN The Meeting agreed to establish a Task Force on the Radar data sharing in the Central Caribbean, together with the Terms of Reference, Work Programme, Composition and Rapporteur, which is attached to this part of the Report in Appendix F. This Task Force should also report its progress to every C/CAR Working Group Meeting, as well as to make periodical reports if necessary.	C/CAR WG	This matter was discussed under Agenda Item 3.3 of this Meeting.	Valid	Follow-up
AGA	DECISION 2/18 FOLLOW UP TO THE IMPLEMENTATION OF AERODROME CERTIFICATION IN THE C/CAR STATES / TERRITORIES That the C/CAR Working Group follows up on the compliance of the aerodrome certification requirement on behalf of States / Territories of the C/CAR States, for which a table was prepared shown in the Appendix A to this part of the Report.	C/CAR WG		Valid	Follow-up
CNS	DECISION 4/7 VHF/AMS COMMUNICATIONS COVERAGE That the C/CAR VHF/AMS Coverage Task Force (Rapporteur – Jamaica), with the support of the ICAO Regional Office, review the pending VHF/AMS communications coverage issues and develop a regional action plan for their resolution to be presented at the C/CAR/WG/5 Meeting.	C/CAR VHF/AMS Coverage Task Force	This item was dealt with under item 3.3 of this Meeting.	Valid	Follow-up

FIELD	DECISIONS	ACTION FOR	REMARKS AND FOLLOW-UP	STATUS	REQUIRED ACTION
CNS	DECISION 4/10 RADAR DATA SHARING That the Radar Data Sharing Task Force (Rapporteur – Netherlands Antilles), with the support of the ICAO Regional Office, collect the required radar data sharing information from C/CAR States/Territories and neighbouring sub-regions by 31 May 2004, and develop a regional action plan for the implementation of radar data sharing to be presented at the C/CAR/WG/5 Meeting.	Radar Data Sharing Task Force	This was reviewed in the C/CAR WG/5 Meeting.	Completed	Completed
SAR	DECISION 4/16 DEVELOPMENT AND INTEGRATION OF THE SEARCH AND RESCUE PLANS IN THE CENTRAL CARIBBEAN That the C/CAR/WG, supported by the C/CAR SAR Task Force in coordination with the ICAO NACC Regional Office: a) continue to follow-up the development and improvement of National SAR Plans; b) develop an action plan for the development of a C/CAR SAR Plan to be presented at the next C/CAR/WG/5 Meeting; and c) incorporate SAR tasks in its Work Programme.	C/CAR SAR Task Force		Valid	Follow-up
ATM	DECISION 5/5 IMPLEMENTATION PROGRAMMES OF SID AND STAR STANDARDIZED PROCEDURES IN THE CENTRAL CARIBBEAN That the Central Caribbean Working Group develop an action plan for the development and publication of SID and STAR standardized procedures which are necessary to connect their origin and destination international airports with the RNAV Routes, that may be operationally required by the Central Caribbean airspace, in harmony with implementation of ATS routes in the CAR Region and present it to the forthcoming NACC/DCA/2 meeting.	C/CAR WG		Valid	Follow-up

FIELD	DECISIONS	ACTION FOR	REMARKS AND FOLLOW-UP	STATUS	REQUIRED ACTION
CNS	DECISION 5/9 SOLUTION TO THE DEFICIENCY PRESENTED BY THE ATS SPEECH CIRCUIT BELIZE APP – MERIDA ACC That the ICAO NACC Office request Belize and Mexico, supported by COCESNA to analyze, a) the feasibility of implementing as soon as practicable an ATS speech circuit Belize APP – Merida ACC through the digital networks of Mexico and Central America; and b) in case the alternative in item a) is not possible, the feasibility of implementing the referred circuit through other means.	ICAO NACC Office	The ICAO NACC Office will discuss this matter with Belize and Mexico. Will convene a Meeting in the first semester of 2006.	Valid	Follow-up
CNS	DECISION 5/13 WORK OF THE C/CAR WORKING GROUP ON PLANNING OF INITIAL ACTION TO UPDATE THE CAR REGIONAL DATA LINK PLAN That the C/CAR Working Group provide follow-up and support the programme of initial actions shown in Appendix F to this part of the Report, expanding and proposing finalization dates of each activity.	C/CAR WG	The follow-up to this decision was dealt with under agenda item 3.3 of this Meeting. Cuba is willing to support the work of the Task Force.	Valid	Follow-up
CNS	DECISION 5/18 CONVENING OF AN EXTENDED RADAR DATA SHARING TASK FORCE MEETING That the Radar Data Sharing Task Force convene a meeting of all the States/Territories/International Organizations interested in studying this issue in order to have adequate representation at the meeting for discussion and identification of ATS units where implementation of radar data sharing is feasible and beneficial.	Radar Data Sharing Task Force	The follow-up to this decision was dealt with under agenda item 3.3 of this Meeting. Cuba is willing to support the work of the Task Force.	Valid	Follow-up
CNS	DECISION 5/20 INFORMATION REQUEST FOR THE RADAR COVERAGE CORRESPONDING TO MERIDA ACC AND CENAMER FIR That, as part of the identification of the areas where it would be feasible and beneficial to share radar data, the ICAO NACC Office request Mexico and COCESNA up-to-date information on the SSR coverage of the following sectors:	ICAO NACC Office	The ICAO NACC Office has requested the mentioned information. Mexico and COCESNA initiated bilateral conversations on the radar data exchange.	Valid	Follow-up

FIELD	DECISIONS	ACTION FOR	REMARKS AND FOLLOW-UP	STATUS	REQUIRED ACTION
CNS/ATM	DECISION 5/23 ADS-B STUDIES IN THE CENTRAL CARIBBEAN The C/CAR Working Group, a) review the last activities related to the ADS and ADS-B conducted by the States, Territories and International Organizations that have responsibility of the FIRs control; b) identify the areas with more air traffic density, current and foreseen until 2015; c) gather information from the States/Territories/International Organizations on the existing and planned ATC automated systems capacities to support ADS or ADS-B systems; and d) identify the design phases and deployment development of the ADS and ADS-B systems, in order to improve and to extend the surveillance data sharing plan, taking advantage of the ADS or ADS-B systems ground potential stations.	C/CAR WG	Was dealt with under Agenda Item 3.4. Cuba is willing to support the work of the Task Force.	Valid	Follow-up
HR	DECISION 5/25 HUMAN RESOURCES AND TRAINING PLANNING TASK FORCE That, bearing in mind the need for the States/Territories to take care of the human resources and training subject as an essential element for the implementation of the new aeronautical systems, the Human Resources and Training Planning Task Force be activated, in accordance with the following considerations: a) it will endorse the Terms of Reference and Work Programme included in the Appendix to the report on Agenda Item 6; and b) it will be formed by Cuba, Dominican Republic, Jamaica and IFATCA, and it will begin its functions as from this meeting, using electronic mail as the main mean to develop its tasks.	C/CAR WG	-In Agenda Item 5, the Rapporteur of the Group informed on the actions taken to this date on the future plans. -During NACC/DCA/2, Cuba assumed this function. Cuba accepted the role of the Rapporteur of the Task Force, and presented a WP proposing actions to be followed in order to activate the work of the Group.	Completed	Follow up.

APPENDIX B

IATA SURVEY ON BOARD NAVIGATION AND COMMUNICATION EQUIPMENT IN THE LATAM/CAR REGIONS

Airline	Airplane Type	NAVIGATION CAPABILITY																	COMMUNICATIONS CAPABILITY					COMMENTS
		FMS	GPS STAND ALONE	GPS Coupled to FMS	IRU	RNAV DME/DME	RNAV DME/DME/IRU	RNAV/GPS	RNP-10	RNP-4 Oceanic	RNP-5 B-RNAV	RNP-1 P-RNAV	RNP 1.0	RNP .3	RNP .5	FANS	ADS	ADS-B	HF	HF DATA LINK	ACARS	ACARS OVER VDL2	SATCOM.	
Air Canada	A319	X		X	X	X	X	X	X												X			
	A320	X		X	X	X	X	X	X												X			
	A330	X		X	X	X	X	X	X	X	X	X				X	X	X	X		X		X	
	A340	X		X	X	X	X	X	X	X	X	X				X	X	X	X		X		X	
	B767	X		X	X	X	X	X	X	X	X					X	X	X	X		X		X*	15 out of 40 have SATCOM
Air France	B777-200ER/300ER	X		X	X		X	X	X	X	X	X	X	X	X	X		X		X		X		
	B747-400/-400ERF	X		X	X		X	X	X	X	X	X	X	X	X	X		X		X		X		
	A330	X		X	X		X	X	X	X	X	X	X	X	X	X		X		X		X		
	A340	X		X	X		X	X	X	X	X	X	X	X	X	X		X		X		X		10 over 20 (50%) A/C not FANS/ADS equipped yet (will be in the future)
	B747-300								X		X							X		X				4 airplanes till July 2006
	B747-200F	X		X	X	X		X	X	X	X	X	X	X				X			X			
	A320	X		X	X		X	X	X	X	X	X	X	X				X		X				1 airplane only operating in the Caribbean
American Airlines	B737-800	X	X	X	X	X	X	X	X	X	X		X*					X		X				RNP 0.11
	B757-200	X	X*	X*	X	X	X	X*	X	X*	X	X			X*			X		X				Part of the fleet only. Some have RNP 0.15
	B767-300	X	X*	X*	X	X	X	X*	X	X*	X	X			X*		X		X		X		X	Part of the fleet only. Some have RNP 0.15
	B777-200	X	X	X	X	X	X	X	X	X	X		X*		X	X		X		X		X		RNP 0.12
	A300-600	X			X	X	X		X				X					X		X				
AVIANCA /SAM	B767-300	X			X	X	X		X									X						
	B767-200	X			X	X	X		X									X						
	B757-200	X			X	X	X		X									X						
	MD-83	X				X		X	X									X						
	F-50	X						X										X						

[illegible]

Airline	Airplane Type	NAVIGATION CAPABILITY																	COMMUNICATIONS CAPABILITY					COMMENTS
		FMS	GPS STAND ALONE	GPS Coupled to FMS	IRU	RNAV DME/DME	RNAV DME/DME/IRU	RNAV/GPS	RNP-10	RNP-4 Oceanic	RNP-5 B-RNAV	RNP-1 P-RNAV	RNP 1.0	RNP .3	RNP .5	FANS	ADS	ADS-B	HF	HF DATA LINK	ACARS	ACARS OVER VDL2	SATCOM	
Lufthansa	B744	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	
	A340	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	
	A330	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	
MasAir	B767-300F	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X			N314LA
	B767-300F	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X			N418LA
	B767-300F	X			X	X	X		X	X	X	X	X	X	X		X		X		X			CC-CZZ
Mexicana Airlines	A318	X			X	X	X	X			X										X			
	A319	X			X	X	X	X			X								X		X			HF system on 5 out of 15 A/C & dual installation on 2 out of 15 A/C
	A320	X			X	X	X				X								X		X			HF system on 7 out of 28 A/C & dual installation on 3 out of 28 A/C
	B757	X			X	X	X	X			X								X		X			RNAV GPS on 1 of 5 aircraft.
	B767	X			X	X	X				X								X		X			
Pluna	B763	X			X		X		X	X									X					
	B752	X			X		X		X	X									X					
	B733	X			X		X												X					
	B732		X																X					
	ATR42																							
Surinam Airways Ltd	B747-306	X		X	X			X	X		X	X	X		X				X		X		X	
Swiss Air Lines Ltd.	A340-300	2		2	3		X	X	X	X	X	X	X	X	X	X	X		2		X	X	X	
	A330-200	2		2	3		X	X	X	X	X	X	X	X	X	X	X		2		X		X	
TACA Intl. Airlines	A319-132(1)	X	X		X														X		X			N472TA, N473TA, N474TA & N479TA (FMS C13042BA01)
	A319-132(2)	X	X		X														X		X		X	N476TA, N477TA & N478TA (FMS C13042BA01)
	A320-233(1)	X			X														X					N451TA, N452TA & N453TA (FMS B546CCM106)
	A320-233(2)	X	X		X														X		X		X	EI-TAB, EI-TAC, N461,462,484,487,488,489, 490,491 (FMS C13042BA01)
	A320-233(3)	X	X		X														X		X			N492TA (FMS C13042BA01)
	A321-231	X	X		X														X		X			N566TA (FMS C13042BA01)

Airline	Airplane Type	NAVIGATION CAPABILITY																	COMMUNICATIONS CAPABILITY					COMMENTS
		FMS	GPS STAND ALONE	GPS Coupled to FMS	IRU	RNAV DME/DME	RNAV DME/DME/IRU	RNAV/GPS	RNP-10	RNP-4 Oceanic	RNP-5 B-RNAV	RNP-1 P-RNAV	RNP 1.0	RNP .3	RNP .5	FANS	ADS	ADS-B	HF	HF DATA LINK	ACARS	ACARS OVER VDL2	SATCOM	
Lacsa	A319-132	X	X		X														X		X		X	N476TA, N477TA & N478TA (FMS C13042BA01)
	A320-233	X	X		X														X		X		X	N463TA, N464TA N465TA, N481TA, N482TA, N483TA & N486TA (FMS C13042BA01)
TACA Peru	A319-132	X	X		X														X		X			N471TA (FMS C13042BA01)
	A320-233	X	X		X														X		X		X	N470TA (FMS C13042BA01)
Tam Brazilian Airlines	A330	X		X	X	X	X	X	X	X	X	X	X			X	X		X		X		X	
	A320	X		X	X	X	X	X	X	X	X	X	X						X	X	X		X	
United Airlines	B767-300	X			X		X		X										X	X	X		X	
	B757-200	X			X		X		X										X		X			29 OW/ETOP Aircrafts
	A320	X		X	X		X	X	X	X	X								X	X	X			50% of fleet has GPS and 13 OW A/C have HF
Varig	B777-200	X		X	X	X	X	X	X		X				X	X	X	X	X	X	X	X	X	
	MD-11	X		X	X	X	X	X	X		X				X		X	X	X	X	X		X	
	MD-11	X			X	X	X	X	X		X				X				X					
	B767-300	X			X	X	X	X	X		X				X				X					
	B757-200	X		X	X	X	X	X	X		X				X		X	X	X	X	X		X	
	B737-700/800	X		X	X	X	X	X	X		X				X		X	X	X					
	B737-300/400/500	X			X	X	X		X		X				X				X					
	DC-10F		X		X	X	X	X	X		X				X				X					
	B727-200F		X			X		X	X		X				X				X					
	B727-100F					X													X					

Agenda Item 2: Review of the air navigation deficiencies and of the Action Plans to resolve them

2.1 Based on the uniform methodology for the identification, assessment and reporting of air navigation deficiencies formulated and updated by the ICAO Council and by GREPECAS, the Meeting noted updated information on the priority “A”, “B” and “U” air navigation deficiencies of the Central Caribbean States/Territories, in each of the air navigation fields, as well as on the action plan taken by States/Territories in resolving the aforementioned deficiencies.

2.2 When reviewing the Appendices to WP/03, the Meeting noted that not all C/CAR States/Territories have informed the ICAO Regional Office in Mexico on the Action Plans to correct the deficiencies in the air navigation fields. As per NACC/DCA Conclusion 2/28, the Meeting recognized that the potential of the electronically available GREPECAS Air Navigation Deficiencies Database (GANDD) on the NACC Office website, has not been taken full advantage of, due to different access problems to the web.

2.3 The Secretariat recalled the established procedure to maximize the use of GANDD and invited the States and Territories to contact the focal point, Mr. Gabriel Meneses of the ICAO NACC Office (gmeneses@mexico.icao.int) in order to receive the necessary assistance.

2.4 Likewise, the Meeting recalled GREPECAS Conclusion 13/92, which urges States/Territories/International Organizations of the CAR/SAM Regions to make every effort to eliminate urgent deficiencies within the next two years, in view that afterwards GREPECAS/15 will review the deficiencies solution status with a view to considering the application of last resort action, after exhausting all the alternatives, wherever applicable.

Update of the action plans to eliminate air navigation deficiencies

2.5 Cuba presented up-to-date information on its air navigation deficiencies database management, and the Action Plan for their elimination, as well as an analysis to finalize those deficiencies in the table that have been eradicated. This information will be timely incorporated to the GANDD. The Secretariat noted the information included in the **Appendix** to this part of the report, in order to update available information in the GANDD.

APPENDIX

UPDATE OF THE ACTION PLANS OF CUBA TO ELIMINATE AIR NAVIGATION DEFICIENCIES

Deficiency	Remarks
AGA 132 C	Corrective action: Aeronautical study for rescuing the necessary area in order to comply with the 150 m of runway strip in the South-East zone. Date of correction: 2007 Executing body: ECASA Difficulties encountered: Financial impact to the country's entities.
AGA 133 C.	Minor repairs have been performed, eliminating the landslide of the concerned material. Resurfacing works of the apron of Terminal 1 are scheduled for year 2006.
AGA-135C	Corrective action: To lower the hight of manholes until the terrain level Date of correction: July 2006 Executing body: ECASA
AGA 138C	During drills carried out by the Rescue and Fire fighting service it has been proved that the response time are complied with as established by the Standard of Annex 14, Volume I, Item 9.2.21.
AGA 139 C	An aeronautical study was performed to reduce the declared distances. Nowadays, the corresponding coordination with “Empresa Cubana de Aeropuertos y Servicios Aeronáuticos” (ECASA) is being established.
AGA 140 C	Corrective action: The Project study and hiring implementation process are on-going Date of correction: Second half of 2007 Executing body: ECASA
AGA 143 C	Due to a low operations level and to the conditions of good visibility presented at the “Ignacio Agramonte” Internacional Airport of Camagüey, this facility is not justified. Based on Recommendation 5.3.4.1 of Annex 14, Cuba will request an amendment to Table AOP 1 of the CAR/SAM ANP FASID.
MET 13 C	A training and knowledge updating plan for all the operating staff of the MET service has been implemented. The deficiency is considered as corrected.

SUMMARY OF DISCUSSIONS

APPENDIX TO AGENDA ITEM 2

2A-2

<i>Deficiency</i>	<i>Remarks</i>
<i>MET 32 C</i>	The acquisition of a complete meteorological observation system has been scheduled for the MUHA airport ("José Martí", Havana), and for "Juan G. Gómez" airport of Varadero (MUVR). Due to the low level of operations presented at the international airport "Ignacio Agramonte" of Camaguey (MUCM), this facility is not justified. Based on the Recommendation of ICAO Annex 3 (Item 4.6.3.2), Cuba will request an amendment to Table AOP 1 of the CAR/SAM ANP FASID; to eliminate this deficiency at the MUCM; MUHA and MUVR airports as at the effectiveness date of the amendment.
<i>AIS 205 C</i>	On 16 February of 2006, the first 3 plans for the international airports of Havana, Varadero and Cayo Coco became effective. Cuba counts with the obstacles survey of the international airports of Manzanillo, Cienfuegos, Camaguey, Cayo Largo and Santa Clara, for the development of the plans. The topographic surveys of the airports of Santiago de Cuba and Holguín are under implementation process.

Agenda Item 3: Activities for the development of the air navigation systems/services

3.1 Aeronautical Information Services (AIS/MAP)

3.1.1 The Meeting reviewed the status of implementation of the seven tasks assigned by the C/CAR WG assigned to the AIS/MAP Task Force. To this end, the Meeting activated the AIS/MAP Ad hoc Group integrated by Cuba (Rapporteur), Cayman Islands, Dominican Republic, Jamaica and United Kingdom. The main results of this analysis are expressed in the following paragraphs.

Discrepancies of the WGS-84 coordinates at the border points of neighbouring FIRs

3.1.2 With regard to the need of resolving 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, according to the Group's available information, the Meeting noted that, to date, no discrepancies. The delegate of Cuba informed that the harmonization of the Havana FIR with the Merida, Miami Oceanic, Cenamer, and Kingston FIRs/CTAs was successfully carried out.

Total implementation of WGS-84

3.1.3 With regard to the total implementation of WGS-84 in the States/Territories of the Central Caribbean, the Meeting noted that the NACC/DCA/2 Meeting, held in Tegucigalpa, Honduras, from 11 to 14 October 2005, reported that, in general, all the Caribbean States/Territories have finalized the WGS-84 World Geodetic System, but some details are still pending finalization.

Implementation of an AIS/MAP Quality Assurance System

3.1.4 The Meeting noted that, with regard to the implementation of a standard AIS/MAP Quality Management System, in the Central Caribbean States/Territories as stated in the report of the GREPECAS/13 meeting, this is a priority task for AIS/MAP. In this regard, based on a request by the Rapporteur of the C/CAR AIS/MAP Task Force sent a query to the States/Territories through the ICAO NACC Office requesting information on the status of the level of implementation of the Quality Management System. To date, no replies have been received by the administrations.

3.1.5 Moreover, the Meeting recalled that Conclusion 13/38 on the adoption of the *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, the Meeting was informed that two Quality Seminars were held in Santo Domingo and Peru respectively, the last quarter of year 2005. The following Central Caribbean States/Territories participated at these Seminars: Cuba, Dominican Republic, Haiti and Netherlands Antilles. During these Seminars, guidelines to apply and implement the *Guidance Manual for the Implementation of an AIS/MAP Quality System in the CAR/SAM Regions* were provided.

Required training actions for the application and compliance with the quality requirements of aeronautical data established in ICAO Annexes 15, 11 and 14, supporting the AIS/MAP quality management systems

3.1.6 With regard to this task, the Meeting recalled that GREPECAS 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*, emphasizing the importance of holding seminars, 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 aforementioned ICAO standards.

3.1.7 The Meeting considered that actions thereupon have been taken, in view that ICAO scheduled the “ICAO Annexes 4/15 AIM Seminar” to be held from 25 to 29 September in Santo Domingo, Dominican Republic. 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 should seriously consider the participation of AIS/MAP officers in this event.

Implementation of the AIS Automation Plan

3.1.8 On the task of recommending the necessary actions to develop and assist States/Territories with the implementation of the AIS Automation Plan approved for the Central Caribbean, developing the relevant databases, the Meeting recalled that the NACC/DCA/2 Meeting agreed on Conclusion 2/2 suggesting that the ICAO NACC Office present to the Council a proposal to develop a regional technical co-operation project, to help formalizing a regional technical 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

3.1.9 Likewise, 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, the aforementioned meeting urged ICAO to define the foregoing Model, as well as the corresponding guidelines as soon as possible. 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.

Implementation of AIS/MAP requirements

3.1.10 With regard to follow up the implementation of AIS/MAP requirements established in the CAR/SAM ANP and suggested by GREPECAS conclusions, the Meeting indicated that, through the review of the Table of Deficiencies, the Meeting indicated that through the review of the Table of Deficiencies, the Central Caribbean Working Group, the States/Territories/International Organizations control the follow-up of the implementation of AIS/MAP requirements established in the aforementioned plan, on a permanent basis.

Study of human factors affecting AIS/MAP management

3.1.11 Concerning the task of studying human factors applied to AIS/MAP management, the Meeting recalled that recently, GREPECAS formulated 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 as well as a Plan for their implementation was also posed, and a programme in coordination with the ICAO Regional Offices and the States/Territories/International Organizations, all these activities are 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.

3.1.12 The AIS/MAP Ad hoc Group informed the Meeting that progress has been achieved in the AIS/MAP services, but more efforts should be undertaken in order to obtain more results. In order to foster the implementation and fulfillment of the Work Programme of the Task Force, the Meeting developed the form contained in **Appendix A** to this part of the report so that States may reflect the fulfillment of each one of the main tasks and explain the difficulties encountered during the fulfillment of each one of them. This will help to focus the problem and to take immediate actions allowing that each State succeeds in implementing the systems indicated in the form as soon as possible.

3.1.13 **Appendix B** to this part of the report shows the results of the information gathered through the Ad hoc Group, of the States/Territories participating in the Meeting. United States expressed that soon they will provide the information required in the Tables.

3.1.14 The percentage of fulfillment of the status of implementation of the C/CAR AIS/MAP system is as follows:

SIXTH CENTRAL CARIBBEAN WORKING GROUP MEETING (C/CAR WG/6)

SUMMARY OF DISCUSSIONS

AGENDA ITEM 3

3-4

No.	Tasks	Not yet begun	On-going	Fulfilled
1	Harmonization with the WGS-84 FIR border coordinates.	-	60%	40%
2	Contribute to the total implementation of WGS 84.	-	-	100%
3	Follow-up on the implementation of an AIS/MAP quality management system.	20%	50%	30%
4	Implementation of the AIS Automation plan.	20%	20%	60%
5	Follow-up to the implementation of AIS/MAP requirements established in the CAR/SAM Air Navigation Plan and updating of the deficiencies tables.	-	100%	-

3.1.15 As shown, according to the results presented in this table, the main difficulties are with the task of follow-up actions to the implementation of AIS/MAP requirements established in the CAR/SAM Air Navigation Plan and updating of the deficiencies tables. In this regard, the need for the Status/Territories to take into consideration C/CAR WG Conclusion 5/2 - *Need for Effective Actions in AIS/MAP Aspects* is reasserted. This conclusion must remain valid in view of its importance, as without the total and effective implementation of AIS/MAP requirements of the CAR/SAM ANP, there will not be an efficient insertion of this field in the CNS/ATM systems and therefore, it will be difficult to support the collaborative decision making within the Subregion.

3.1.16 In order to facilitate the task of the C/CAR Directors of Civil Aviation, by analyzing WP/03 presented by the Secretariat, the Meeting concluded that the main AIS/MAP aspects needing effective follow-up in view of their higher incidence in the area, for their total solution and effective actions are the following:

AIS Aspects:

- Correct and effective application of aeronautical publications AIRAC system.
- Priority in the AIS publication printing.
- Effective and regular updating of AIPs.
- Timely distribution of NOTAM information.
- Implementation of pre-flight information units and provision of this service in the subregion,

MAP Aspects:

- Lack of publication of aerodrome obstacle plans.
- Lack of publication of WGS-84 aeronautical charts.
- Lack of publication of WAC, 1:1000000 charts and non correspondence with the chart index as established in Annex 4.

General Aspects:

- Implementation of the AIS/MAP quality management system.

3.1.17 In view of the above, the Meeting considered that many of these aspects may be resolved through training, organization enhancements and automation and quality management processes, this is why item b) of Conclusion 5/2, regarding the development of bilateral technical assistance agreements directly or through the ICAO NACC Regional Office, taking advantage of the experience and offer of those States/Territories in the area willing to assist in the solution of these deficiencies.

3.1.18 With regard to the pressing need for finalizing the harmonization of the WGS-84 bordering coordinates, the following Draft Conclusion was formulated:

DRAFT**CONCLUSION 6/1****FINALIZATION OF THE HARMONIZATION PROCESS OF THE WGS-84 COORDINATES AT THE FIR BOUNDARIES**

That the C/CAR States/Territories/International Organizations that have not yet done so:

- a) finalize the harmonization of boundary geographical coordinates in their respective FIRs, in coordination with the ICAO NACC Regional Office; and
- b) inform the ICAO NACC Regional Office:
 1. on the officer appointed as the point of contact to carry out the task by **7 June 2006**; according with the ICAO data base information that for such purpose would be distributed by the ICAO NACC Regional Office, as applicable, and
 2. on the agreements reached in this respect by **15 September 2006**.

3.1.19 In order to foster the finalization of the aforementioned Draft Conclusion, the Meeting was of the opinion that it would be beneficial to count with the bordering WGS-84 FIR coordinates database, which was announced in item b) of C/CAR WG Conclusion 5/3. This database is the main tool to find the most rapid and feasible way to achieve the fulfillment of the task. Notwithstanding this, until the database is available, States/Territories should continue coordination with their respective adjacent FIRs and determine the WGS-84 coordinates.

3.1.20 Additionally, the Meeting agreed that the official form would be distributed through e-mail to all the C/CAR States/Territories through the ICAO NACC Office in the first week of March 2006.

3.1.21 Based on the above, the Meeting deemed convenient that the ICAO NACC Office distribute the form shown in Appendix A, so that it may be filled out and submitted to the Rapporteur of the C/CAR AIS/MAP Task Force before the C/CAR DCA/8, so as to provide the Directors of the area with a more up-to-date overview of the work of data gathering effected at the C/CAR WG/6.

3.1.22 The Meeting also reviewed and updated the Terms of Reference and Work Programme of the AIS/MAP Task Force, dealt with under Agenda Item 6, which was carried out bearing in mind the needs of the specialty, the work dynamics and the CNS/ATM environment to which it integrates and supports.

3.1.23 Additionally, the Secretariat informed that, in response to a letter from the Regional Director of the ICAO NACC Office, a communication was recently received from the United States nominating Mr. George P. Sempeles and Dr. Brett Brunk as members of the C/CAR AIS/MAP Task Force. Moreover, another communication was received from Dominican Republic nominating Mr. Andrés Sención as member of the aforementioned Task Force. It is expected that Cayman Islands and Jamaica will inform the nomination of their members at their earliest convenience.

3.2 Air Traffic Management (ATM)

3.2.1 The Meeting reviewed progress related with the tasks approved by the C/CAR/DCA 7, NACC/DCA/2 and GREPECAS/13 meetings on ATM matters as follows:

Implementation of ATS Routes (AOM)

3.2.2 The Meeting identified the routes already approved under Phase 11-b of the amendment to the ANP, which will not require any further coordination outside the C/CAR area, and agreed implementation date of June 8 2006 defined as follows:

- i) UL210 GELOG to BORDO (FIR Havana)
- ii) UR628 CAYABO to VARDER (extension in Havana FIR)
- iii) L/UL341 TANIA to SANGSTER VOR (FIR Havana and Kingston)

3.2.3 Likewise, a new trajectory was agreed on for the route Havana to Santo Domingo between the States concerned for implementation on June 8, 2006 once the geographical coordinates have been defined with the quality requirements defined in Annex 11, as follows:

Route Havana to Santo Domingo HOLGUIN to KODIX L212/UL212

Name	Lat	Long
UHG VOR	N22 58.7	W082 25.6
URLAM	N19 57.9	W073 23.2
ONPAD	N19 36.4	W071 44.4
KODIX	N19 08.2	W070 08.5

3.2.4 Based on a request by Cayman Islands, the following new RNAV routes should be timely analysed and coordinated for their implementation as appropriate:

i)	Grand Cayman to Havana	Not necessary as L/UL 465 would apply when implemented.
ii)	Grand Cayman to La Ceiba	Further coordination required
iii)	Grand Cayman to Nassau	Further coordination required
iv)	Grand Cayman to Montego Bay	Bilateral coordination to be undertaken
v)	Grand Cayman to Kingston	Bilateral coordination to be undertaken
vi)	Grand Cayman to Chicago	Further coordination required
vii)	Grand Cayman to Houston	Not needed, in order that L465 and UL 674 would apply

(AOM) Implementation of Performance Based Navigation

3.2.5 In accordance with NACC/DCA Conclusion 2/14, the participants recognized the need for adjusting their work programme for the implementation of GNSS routes as per the scheduled dates for the publication of the new ICAO guidance material on RNAV and RNP, and deemed appropriate that States make efforts for the participation of their airspace planning and GNSS procedures development experts in the Performance Based Navigation Seminars scheduled for 2006.

3.2.6 The Meeting recalled the responsibility of States for ensuring international civil aviation safety, in accordance with ICAO guidelines, and specifically, for determining the causes of incidents and the risk level, as well as for reducing their occurrence. After a debate, the Meeting noted that several of the required measures to reduce incidents are already included in the ATS quality assurance programmes; notwithstanding, it also recognized that those programmes should evaluate towards an ATS safety management system, as required by Annex 11.

(AOM) ATS Safety Management

3.2.7 As a follow up to the ATS safety assessments carried out after RVSM implementation, the C/CAR WG noted that most LHDs are due to human factor errors in ATC loop, which might increase the risk factor with the foreseen traffic growth. Likewise, the Meeting recognised that the interconnectivity of automated systems might also help mitigating the occurrence of operational errors, as well as the importance of taking other urgent actions to mitigate against the ATC Loop Errors identified in LHD reports. Based on the above, the Meeting adopted the following Draft Conclusion:

DRAFT

CONCLUSION 6/2

ESTABLISHMENT OF ATS SAFETY MANAGEMENT MEASURES

That the States and Territories of the Central Caribbean, in order to reduce ATC loop errors:

- a) ensure that LHDs are promptly forwarded to CARSAMMA and copied to the ICAO Regional Office;
- b) request to the ATS authorities to establish management measures to enhance monitoring of ATC operations through the application of ATS quality assurance mechanisms;
- c) establish the maximum permitted levels as an objective of LHDs incidents and/or occurrence;
- d) in compliance with Doc 9859, Safety Management System (SMS), establish for the identification of the main incident causes and for risk assessment;
- e) foster coordination bilateral visits among their ATS quality assurance experts in order to exchange experiences and data on ATC Loop Errors and the actions taken to mitigate against recurrence;
- f) as applicable, plan the early interconnectivity of their ATS automated system in accordance with GREPECAS regional guidelines; and
- g) request the assistance of the ICAO NACC Regional Office where bilateral actions taken to address these errors prove insufficient.

(AOM) Five-letter name codes (5LNC) assignment

3.2.8 The Secretariat presented information on the electronic tool of the on-line 5-letter name codes assignment System through the Internet that will be implemented in 2006. The Meeting thanked the valuable information that will activate this planning and implementation process in the ATS airspace.

3.2.9 The Meeting was also informed on a request by Trinidad and Tobago to change the name of point ARUMU by VUDAL in route UL337 at the boundaries of the Piarco FIR and the Maiquetia FIR in order to solve a similar pronunciation problem at that notification point that might affect ATS safety. The representative of Venezuela informed that 11 May 2006 was agreed as AIRAC effectiveness date to carry out the publication of such change.

ATM Contingency Plans

3.2.10 The Meeting reviewed the tables contained in Appendix B of Working Paper 05 as to the status of implementation of ATM Contingency Plans and identified that little progress had since been made. The Group recognized that this non compliance implicates a deficiency to the requirement indicated in Annex 11 and recommended that all C/CAR States/Territories that have not yet completed their respective Contingency Plans take the necessary action to comply with GREPECAS Conclusion 13/68 as follows:

- complete their Contingency Plan by 30 June 2006;
- submit a copy of the plan to the ICAO NACC Regional Office and
- coordinate the Contingency Plans in order to keep harmony on the regional contingency measures including humanitarian support for the of continuity international civil aviation operations, disrupted by human factors events or natural disasters.

Implementation of Air Traffic Flow Management (ATFM) in the C/CAR

3.2.11 The Meeting noted that in the past years, air operations saturation periods have occurred, with increases up to 7% annual, and therefore it is foreseen that this problem will continue growing between traffic flows of the NAM Region from/to the Caribbean and of the Caribbean from/to Europe, in view that the latter have kept a continuous operations growth, which will need measures for more efficiency in air operations management..

3.2.12 The Meeting was informed that Air traffic flow management (ATFM) is a service addressed to ensure a balance between air traffic with the declared capacities and it helps air traffic control (ATC) to use to the maximum extent its capacity to serve service demand. To this end, ATFM monitors air traffic and issues management initiatives to keep a safe, orderly and timely movement of the air traffic flow.

3.2.13 In compliance with the NACC/DCA/2 and the GREPECAS/13 Meetings conclusions, it was recalled that the CAR Region, including Mexico, Central America, the Central Caribbean and the Eastern Caribbean are characterized as an homogeneous ATM area with similar operational features and needs, and therefore, as a potential scenario for ATFM implementation. In line with these guidelines, and in view that ATFM implementation will have an impact on all the FIRs of the CAR Region, the States, Territories and International Organizations of the Central Caribbean should initiate the ATFM coordination activities for balancing ATS demand and capacity.

3.2.14 The Meeting recognized that traffic growth in the NAM and CAR Regions represents new conquests and collaboration opportunities to achieve the goal of the harmonious development and implementation of the ATFM service, and therefore, the States and Territories of the Central Caribbean should review the ATS organization and management allowing an optimization and better flexibility in the use of airspace and airports for the benefit of users and service providers. Other aspects to be resolved in the short-term are the following:

- the harmonization of the States' aeronautical rules;
- the development of an ATFM operational procedures manual for its common application in all the regions, including specifications to determine the airport capacity and ATS capacity;
- the improvements regarding surveillance and automated systems for aircraft data processing as well as the development and co-ordination of ATFM messages;
- the effective planning of human resources and required training aspects;
- improvements of traffic forecast;
- improvements of random routes, as well route network programmes; and
- to encourage new operational agreements between ATS users and providers for ATFM implementations, especially in those areas where flow problems are already present caused by the traffic increase.

3.2.15 Based on the above, the Meeting adopted the following:

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CONCLUSION 6/3

ATFM PROCEDURES DEVELOPMENT

That, C/CAR States/Territories, based on their regional and subregional developments:

- a) develop an ATFM Manual to serve as a basis for the provision of ATFM service in the different FIRs of the Central Caribbean; and
- b) present the progress thereupon to the C/CAR WG/7.

3.2.16 The Secretariat informed the Meeting that COCESNA and FAA have established an agreement to share operational information through the use of the ETMS system to monitor traffic flows and have kept a constant communication with the ICAO NACC Office in order to coordinate the ATFM regional implementation activities. Moreover, United States has expressed its intent to work with the Caribbean Region to develop an ATFM system and to implement the corresponding initiatives. FAA was recently been added co-operation activities related to the Air Traffic Management (ATM) programme for the Caribbean Region in order to jointly work with all the adjacent States of the Region.

3.2.17 The Meeting recognized that the establishment of operational agreements between ATS units in the short term and the analysis of other agreements that might be necessary in the mid-term should be fostered, and formulated the following Draft Conclusion:

DRAFT

CONCLUSION 6/4

ATFM OPERATIONAL AGREEMENTS

That C/CAR States/Territories encourage ATS providers to establish operational agreements among ATS units for ATFM service provision in the C/CAR.

3.2.18 Taking into account that the implementation of the ATFM service needs to carry out a series of well-coordinated activities among the States and Territories, the C/CAR WG decided to support the participation of ATM officers in the activities organized by the ICAO NACC Office in line with the joint strategy agreed by the NACC/DCA/2 Meeting and the action plan approved by GREPECAS to carry

out the activities focused at the harmonious implementation of the ATFM service in the Central Caribbean. To that end, the Meeting adopted the following Draft Conclusion:

DRAFT**CONCLUSION 6/5****PERSONNEL INVOLVED IN ATFM ACTIVITIES**

That the C/CAR States/Territories/International Organizations support the development of experts involved in ATFM implementation and their participation in the different related events to be developed in coordination with the ICAO NACC Office.

3.2.19 In order to comply with the above Draft Conclusion, and in accordance with C/CAR WG Conclusion 5/24 - *ATFM Points of Contact in the Central Caribbean*, the Meeting identified the following experts that have been designated as points of contact: for the implementation of the ATFM system in the Central Caribbean: Fidel Ara – Cuba, Johann Estrada - Dominican Republic, Haiti – to be determined, Patrick Stern – Jamaica, George Hof – United States.

3.3 Communications, Navigation and Surveillance (CNS)***Protection to the radio-frequency spectrum***

3.3.1 The Meeting noted that, based on Conclusion 5/8 item a) of the C/CAR WG, the ICAO Regional Office coordinated with United States (FAA) to carry out investigations searching for the source of the interference received in frequency 124.000 MHz of the area control service of the Kingston ACC, as reported by the delegate of Jamaica during the C/CAR WG/5 Meeting, however no source was found justifying the reported interference, as informed to Jamaica, and more details were requested on the interference to be able to continue the investigation. The delegate of Jamaica expressed that he needed to analyze the results of the investigation carried out by United States.

3.3.2 Moreover, the delegate of Jamaica informed the Meeting that they were receiving interference in frequency 118.500 MHz used for the aerodrome control service (TWR) at the Kingston International Airport; and they believed that the interfering signal came from a station in Cuba. Based on information on the background of this issue provided by the Secretariat to Jamaica, the delegate of this State expressed that he would change the referred frequency as per the coordination established with the ICAO NACC Regional Office.

3.3.3 Likewise, in accordance with GREPECAS Conclusion 13/89, the Meeting followed up the actions of the States/Territories/International Organizations aimed at preparing and supporting ICAO's position for the Radiocommunications World Conference – 2007 ITU (WRC – 2007), which results were as follows:

- a) “provide support to the ICAO's position for the WRC-2007”. Taking into account that the ICAO Secretary General, through State letter Ref.: E 3/5-05/85, dated 12 August 2005, transmitted ICAO's position for the ITU WRC-2007.

- b) *“designate a focal point or a contact person with ICAO and with the national authority of radio-frequency spectrum management for the coordination of matters related with the WRC-2007”*: Cuba informed that it notified the ICAO NACC Regional Office that Eng. Gabino Cid is the designated focal point for this matter.
- c) *“participate in an active manner in the preparatory work for the WRC-2007 in the CITELE meetings of the Organization of American States (OAS)”*. The ICAO NACC Office is only aware that only Mexico participates in the CITELE meetings. Cuba, through its IPI/11, informed the Meeting that it will not participate at the CITELE meetings as it is not a member of the OAS.
- d) *“participate in other ICAO meetings and other activities on ICAO’s position”*.
- e) *“that representatives from the civil aviation administrations be included in the national delegations participating in the WRC-2007”*.

3.3.4 Also, the Meeting reiterated the importance that States/Territories/International Organizations should coordinate the aeronautical frequencies assignment through the ICAO Regional Office.

Communications

A) Development of ground-ground communications

Development and interconnectivity of regional/subregional digital networks

3.3.5 The Meeting reviewed an overview of the status of implementation of the MEVA II Network and noted that not all the MEVA Network members have finalized their respective contracts with the MEVA II Service Provider; the latter were encouraged to conclude their contracts, as soon as possible, in order to proceed with this network’s implementation. A summary of review carried out by the Meeting is described in the following paragraphs:

- a. The MEVA Member of Cuba informed that his State strongly supports the need for finalizing the contracting phase of each member with the MEVA II service provider (AGS), in view that the MEVA Network update is an essential tool to develop communications and to enhance air traffic control safety in the Central Caribbean. Cuba has contracted MEVA II through the ICAO Technical Cooperation Section and its legal representative, AVIANMPORT and ICAO have signed the contract. Nevertheless, AGS has not been able to sign the contract as the export license is still under management process granted by the United States Government. Therefore, Cuba expressed its concern that this delay might have on the transition towards the MEVA II.
- b. The MEVA Member of Haiti informed that his State awarded a contract to AGS on 18 October, 2005, and the detailed site survey was performed on 12 December 2005.
- c. The MEVA Member of United States informed that the Federal Aviation Administration (FAA) awarded a contract to AGS in September 2005 and is presently coordinating specific security requirements with the MEVA II Service Provider before finalizing the contract. Moreover, she noted the concern of Cuba on the MEVA II transition process and will coordinate with the corresponding agencies of her State.
- d. The MEVA Member of Jamaica informed that his State signed the contract with AGS.
- e. The contracting process of other MEVA members is ongoing.

3.3.6 Additionally, the Meeting was informed that the MEVA II Transition Plan established that the Miami ARTCC and San Juan CERAP nodes will be the first to be implemented. This implementation phase shall be completed during the 1st quarter of 2006. It was also agreed that the next implementation site would be Bahamas (Freeport in parallel with Nassau) since it has leased lines as back up connected only to United States. However, it is expected that the other MEVA II nodes will be implemented by the end of the 2nd quarter of 2006.

3.3.7 Also, the Meeting was informed that the MEVA Technical Management Group (TMG) has scheduled its 16th Meeting in Santo Domingo, from 7 to 9 March 2006 to deal, among other aspects, with the finalization of the MEVA II Transition Plan development.

3.3.8 Additionally, the Meeting was informed that, as a follow-up to GREPECAS Conclusion 13/70, the NACC and SAM Regional Offices convened the MEVA II-REDDIG Coordination meeting to be held in Lima, from 20 to 22 March 2006, with the intention of reaching agreements for the MEVA II – REDDIG interconnection/interoperability.

3.3.9 Bearing in mind the status of the MEVA II transition process and the activities suggested by GREPECAS for the interconnection/interoperability of MEVA II-REDDIG networks, the Meeting formulated the following Draft Conclusion:

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CONCLUSION 6/6

**FINALIZATION OF THE IMPLEMENTATION PROCESS OF
THE MEVA II NETWORK AND
INTERCONNECTION/INTEROPERABILITY WITH REDDIG**

That MEVA Member States/Territories:

- a) make every effort to finalize and conclude their respective actions in order to contribute to the transition towards the MEVA II VSAT Network, by mid 2006; and
- b) follow-up and implement their respective agreed actions to achieve the interconnection/interoperability of MEVA II-REDDIG.

Implementation of the ATN ground portion

3.3.10 The Meeting recalled that GREPECAS approved Conclusion 13/75 - *Request for information on Plans to Implement ATN ground-ground applications*, through which a request was made to the States/Territories/International Organizations based on the table contained in Appendix AZ of its report, to provide detailed information on the requirements and plans to implement the ATN ground-ground applications, such as AMHS and AIDC. Based on the aforementioned table, the Meeting developed a preliminary implementation plan of ATN ground-ground applications, which is presented in **Appendix C** to this part of the report. In order to carry out this task, as well as others regarding the development of air-ground communications, the Meeting created a COM Ad hoc Group coordinated by the delegate of United States and integrated by the delegates of Cayman Islands, Cuba, Dominican Republic, Haiti and Jamaica.

3.3.11 The Meeting also recalled GREPECAS Conclusion 13/78 urging the States/Territories/International Organizations to initiate activities for the ATN deployment and its applications according to the target dates and strategy presented in Appendix BA to its Report. Additionally, GREPECAS, through its Conclusion 13/78, issued initial guidelines for the development of national AMHS and AIDC implementation plans. Cuba, through its NI/11 informed that, based on its current aeronautical messenger integrated system has developed its ATN Plan including applications as per the aforementioned dates and strategy.

3.3.12 The delegate of United States informed the Meeting that the Japan Civil Aviation Board (JCAB) and FAA implemented ATN routers and AMHS service in March 2005. Moreover, they have scheduled to connect Fiji to AMHS in 2007; they have also scheduled in the of Atlanta Center in March 2007, therefore, as from this date, the implementation of AMHS connections with the CAR and SAM might begin.

3.3.13 Based on the above paragraphs, the Meeting formulated the following Decision and Draft Conclusion:

DECISION 6/7 STUDY ON THE INITIAL C/CAR ATN IMPLEMENTATION PLAN

That an ATN Task Force be activated to conduct preliminary studies of ATN architecture in the Central Caribbean, composed by members of Cayman Islands, Cuba, Haiti, Jamaica and United States (Rapporteur) so as to present the results of its study at the next C/CAR WG meeting.

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**CONCLUSION 6/8 C/CAR PRELIMINARY IMPLEMENTATION PLAN OF THE
ATN AND GROUND-GROUND APPLICATIONS**

That the States/Territories of the Central Caribbean:

- a) review and complete the preliminary implementation plan of the ATN ground-ground applications, presented in Appendix C to this part of the report; and
- b) that have not yet done so, establish their correspondent national implementation plan of routers and ATN system based on the Regional Plan, the results of the C/CAR WG and the guidelines of GREPECAS.

Regional use of public Internet for aeronautical applications

3.3.14 The Meeting noted that GREPECAS Conclusion 13/81 recommended that the CAR/SAM States/Territories/International Organizations which consider using the public Internet in support of the aeronautical applications, take into account and apply the “*Guidelines for the Use of the Public Internet for Aeronautical Applications*” contained in the ICAO Manual, Ref.: Doc 9855. Also, the participants expressed that they will take measures to apply these guidelines in their respective Administrations.

Review of the status of implementation of the VHF and HF voice communications mobile service

3.3.15 The Meeting continued reviewing the VHF and HF voice communications implementation plan of the aeronautical mobile service. As part of the work, the Meeting recalled the action plan of COCESNA to improve the CENAMER FIR Northwest portion coverage of United States and Mexico to improve and mitigate the VHF coverage in the central part of the Gulf of Mexico. Also, the Meeting informed that based on the Draft Conclusion 5/10 - *Information request to the Airspace users on the VHF Communication Coverage Status in the CAR Region*; the ICAO Regional Office requested IATA and IFALPA to provide information on the VHF voice communications coverage voids that they have detected in the Region; nevertheless, no response has been received nor the reports on the deficiencies of VHF/AMS coverage.

3.3.16 Cuba, informed the Meeting of its administration's plans being executed to improve and complete VHF/AMS communications coverage, summarized as follows:

3.3.17 Cuba has scheduled the modernization of VHF/AMS radio communications equipment installed in ATS units of the country's airports. This modernization will be carried out almost totally and gradually during the next 5 years, and according to the equipment's useful life.

3.3.18 Also, the delegate of Cuba explained that the current VHF/AMS remote stations network (Remote Stations) which provide communications for the area control service in the Havana FIR, is supported with equipment installed in 6 main stations, spread across the Cuban Territory providing total coverage in the Havana FIR with high levels of reliability and availability. The graphics of this coverage are shown in Figures 1 and 2 shown in **Appendix D** to this part of the Report.

3.3.19 Likewise, based on the work carried out and the coverage status, the meeting thanked the work performed by the C/CAR VHF/AMS Coverage Task Force and formulated the following decision:

DECISION 6/9 DISBANDING OF THE C/CAR VHF/AMS COVERAGE TASK FORCE

That, considering the VHF/AMS improvement and the existing actions plans for on-going enhancements, that the C/CAR VHF/AMS Coverage Task Force be disbanded, appreciating the work carried out by the Rapporteur and the Members.

3.3.20 In addition to the above, the Meeting followed-up GREPECAS Conclusion 13/71 – *Update and implementation of the VHF, HF and Satellite voice communication of the AMS and AMSS Plan*. This conclusion encouraged States/Territories/International Organizations to promote the plans currently in execution, in order to improve or mitigate the VHF/AMS and HF/AMS coverage, defining implementation of target dates as soon as possible, as well as to examine and recommend actions to complete the implementation of the required voice by satellite communications and if relevant to propose updates to the Regional Plan (Table CNS 2A of the FASID), informing the ICAO Regional Office on the progress of these actions to be finalized by May 30, 2006.

Implementation of the air-ground data links

3.3.21 The Meeting recalled that the C/CAR Working Group formulated Conclusion 5/12 - *Initial action to update the CAR Region Plan to implement VHF, HF and satellite data links*, among other aspects, encouraging States/Territories/International Organizations to participate in this initial actions programme.

3.3.22 The Meeting also recalled that GREPECAS formulated Conclusion 13/72 - *Regional Strategy for updating evolutionary implementation of the Air-Ground Data Links Plan*, suggesting the States/Territories/International Organizations to carry out their activities aimed at the air-ground data links deployment based on the regional Strategy for updating and executing the air-ground data links plan, composed by the activities Plan and the Implementation programme presented in Appendices AW and AX respectively of its Report; and that based on the regional Strategy mentioned, review and propose updates to the corresponding parts of the implementation of air-ground data links of the CAR/SAM Regions contained in Table CNS 2A of the FASID; likewise, to inform on the results of these actions to the ICAO Regional Office by 30 May 2006.

3.3.23 The delegate of Cuba informed that the majority of the equipment installed in the VHF/AMS remote stations allows the implementation of VDL Mode 2 technology, with a plan to totally replace the equipment remained during the next 5 years (2006-2010). Also, this modernization is contemplated in the National Plan for the Transition to the CNS/ATM systems of the Republic of Cuba, which is in conformity with the regional Plan.

3.3.24 Also, the delegate of Cuba informed that bearing in mind the *Regional Strategy for updating evolutionary implementation of the air-ground data links Plan*, adopted by GREPECAS in its Conclusion 13/72, considers that there are still no conditions to implement in 2006 (06/06) the planned Table CNS 2A of the FASID of 2 VHF (VDL) data channels for the radar area control service up to FL 450 (ACC-SR-U / Havana MUHA), and therefore proposed to amend the implementation date.

3.3.25 Likewise in the period 2006–2007, Cuba is planning to begin discreet VDL-M2 tests in its airspace, which would be initially aimed at the implementation of the D-ATIS application at the José Martí International Airport (MUHA). Simultaneously, CPDLC trials and demonstrations will be held making the implementation of applications ACARS based possible.

3.3.26 Considering the expressed in the above paragraphs, the Meeting reviewed the corresponding air-ground communications systems by data links of Table CNS 2A of the FASID. The result is presented in **Appendix E** to this part of the Report.

3.3.27 Based on the expressed in the above-mentioned paragraphs, the Meeting formulated the following Draft Conclusion:

DRAFT**CONCLUSION 6/10****AIR-GROUND DATA LINKS REGIONAL PLAN UPDATE AND
ACTIONS FOR ITS IMPLEMENTATION**

That, with regard to the implementation of the air-ground data links, the C/CAR States/Territories adopt the part of the updated regional Plan presented in Appendix E to this part of the Report.

Evolutionary Implementation of the Navigation Systems

3.3.28 The Meeting recalled that in respect to the studies carried out by the RLA/00/009 and RLA/03/902 projects for a CAR/SAM regional SBAS solution, the GREPECAS/13 Meeting noted that it is technically and operationally impractical to expand the coverage of the wide area augmentation system (WAAS) and EGNOS system to the CAR/SAM Regions. Therefore Conclusion 13/84 was formulated – *Studies for a CAR/SAM Regional SBAS solution*, through which, among other aspects, States/Territories/International Organizations are urged to “*continue the GNSS introduction in a evolutionary and coordinated manner, according to the ICAO Global Plan, conducting studies for a regional SBAS solution consistent with the requirements and characteristics of the CAR/SAM Region; and applying other applications, also taking into account that added benefits should help to justify the cost of reaching the ultimate goal of migrating to the GNSS, once ground-based aids are dismantled*”.

3.3.29 Additionally, GREPECAS Conclusion 13/85 – *Foster the use of GNSS in diverse sectors of the States*, the C/CAR WG Members took note in order to recommend actions to their respective Administrations aimed at taking advantage of the GNSS benefits in diverse sectors of States and at disseminating the results obtained on the SBAS studies solution.

3.3.30 On the other hand, according to the strategy for the introduction of the navigation systems considered by ICAO that would be incorporated as part of the second amendment to the Global Air Navigation Plan for CNS/ATM Systems (Doc. 9750-AN/963) and that will shortly be circulated to the States/Territories/International Organizations, the Meeting noted that the airspace users need a globally interoperable navigation infrastructure that provides benefits in safety, efficiency and capacity. Aircraft navigation should be straight-forward and conducted to the highest level of accuracy supported by the infrastructure. To meet those needs, the progressive introduction of performance-based navigation must be supported by a navigation infrastructure consisting of an appropriate combination of global navigation satellite systems (GNSS), self-contained navigation systems (inertial navigation system) and conventional ground-based navigation aids.

3.3.31 GNSS-centered performance-based navigation enables a seamless, harmonized and cost effective navigational service from departure to final approach that will provide benefits in safety, efficiency and capacity.

3.3.32 The Meeting noted that the GNSS implementation will be carried out in an evolutionary manner, allowing gradual system improvements to be introduced. Near-term applications of GNSS are intended to enable the early introduction of satellite-based area navigation without any infrastructure investment, using the core satellite constellations and integrated multisensor airborne systems. The use of these systems already allows for increased reliability of non-precision approach operations at some airports.

3.3.33 The Meeting also noted that the medium/long term applications will make use of existing and future satellite navigation systems with some type of augmentation, or combination of augmentations required for operation in a particular phase of flight.

3.3.34 Considering the latest conclusions of GREPECAS, the revised Global Air Navigation Plan for CNS/ATM Systems strategy, the Meeting noted the need to take action proposals for the early introduction of the GNSS applications defined in the short-term allowing the early introduction of the satellite-based area navigation (RNAV) with no infrastructure investment, using core-satellite constellations and the integrated multi-sensors aircrafts systems, non-precision approach (NPA) and required navigation performance (RNP). Likewise, the Meeting recommended actions to follow-up the evolutionary GNSS applications development in the medium/long term.

3.3.35 Taking into account the GNSS evolutionary development status summarized in the above paragraphs, the Meeting formulated the following draft conclusion:

DRAFT

CONCLUSION 6/11

**SHORT-TERM IMPLEMENTATION OF THE AVAILABLE
GNSS CAPABILITIES**

That, considering GREPECAS Conclusion 13/84, the C/CAR States/Territories,

- a) which have not done so, proceed with the application of the available GNSS capabilities in the short term; and
- b) follow-up the work developed by GREPECAS and ICAO for the evolutionary implementation of GNSS in the mid-long term.

**Solution to the conflicts detected by the designation of identical identifiers in
VOR/DME stations.**

3.3.36 Recently, Dominican Republic and Venezuela detected that identifier “PNA” was being also used in the VOR of the Punta Cana International Airport (Dominican Republic) as well as in the one of Punta San Juan (Venezuela). Likewise, identifier “CRO” is used at Cabo Rojo (Dominican Republic) VOR/DME station, as well as Coro (Venezuela) VOR/DME station. The Secretariat informed that in view of the research of the background of the aforementioned stations, it was detected that those identifications are registered since over 20 years, but apparently now the problem has been detected due to the application of automation.

3.3.37 The first of those problems expressed in the paragraph above was detected in the Santo Domingo Area Control Centre as its database contains that information: the automated ATS system detects the conflict. The delegates of Dominican Republic and Venezuela, supported by the Secretariat, made an in-depth analysis of the problems and of the possible solutions. Resulting of this analysis, the Meeting formulated the following Draft Conclusion:

DRAFT**CONCLUSION 6/12****SOLUTION TO THE CONFLICTS PRODUCED BY THE SAME IDENTIFIERS USED IN VOR/DME STATIONS OF DOMINICAN REPUBLIC AND VENEZUELA**

That, aimed at resolving the conflicts detected by the use of identical identifiers in the VOR/DME stations,

- a) Dominican Republic should substitute identifier “CRO” of its Cabo Rojo VOR/DME station;
- b) Venezuela should substitute identifier “PNA” of its Punta San Juan VOR/DME station; and
- c) the States mentioned in the above items should coordinate with the ICAO NACC and SAM Regional Offices as applicable for the selection and assignment of new identifiers for the mentioned VOR/DME stations.

Follow-up to the implementation of the surveillance systems**Radar data sharing**

3.3.38 Taking into account the Conclusions on radar data sharing agreed upon at the previous meeting of the Group and GREPECAS guidelines, this Meeting followed-up on the tasks for the establishment of radar data sharing in the Central Caribbean. The Meeting, in order to develop their work designated an Ad hoc Group composed by Cayman Islands, Cuba (Rapporteur), Haiti and Jamaica. The results of the review of the issues pertaining to surveillance systems are summarized as follows.

3.3.39 In response to C/CAR WG Conclusion 5/15, the MEVA Technical Management Group (TMG) members informed the Meeting that the MEVA II Network is able to support radar data circuits. Therefore, the Meeting formulated the following Draft Conclusion:

DRAFT

CONCLUSION 6/13

USE OF THE MEVA II NETWORK TO SUPPORT RADAR DATA EXCHANGE

That, for the establishment of communications for surveillance data sharing, the C/CAR States/Territories consider that,

- a) the VSAT MEVA II Network has the capability to support this objective; and
- b) the use of a synchronic channel of 9.6 kbps for the transmission of radar data is recommended.

3.3.40 In accordance with the C/CAR WG Conclusion 5/16, the Meeting noted that Cuba, Jamaica and Netherlands Antilles have provided experts to support the work of the mentioned Radar Data Sharing Task Force, to whom it expressed its appreciation. It is also expected that other members of the Group will designate adequate experts to assist to the work of the aforementioned Task Force.

3.3.41 Following the C/CAR WG Conclusion 5/14 and GREPECAS Conclusion 12/49 for a short term achievement of additional bilateral and multilateral agreements, the Meeting formulated an action plan for the establishment of bilateral agreements between units interested in keeping the radar data sharing, in which the SSR options radar data sharing between neighboring ATS units ADS-C or ADS-B are included, presented in the **Appendix F** to this part of the Report. Therefore, the Meeting formulated the following Draft Conclusion:

DRAFT

CONCLUSION 6/14

ACTION PLAN FOR THE ESTABLISHMENT OF BILATERAL AGREEMENTS FOR RADAR DATA SHARING

That, for the establishment of bilateral agreements for radar data sharing the C/CAR States/Territories consider the Action Plan presented in Appendix F to this part of the report.

3.3.42 Taking into account that the steps proposed in the action plan are essential and should be executed with due moderation and organization, the Meeting considered that the best way to timely achieve a shared radar image between the Central Caribbean States/Territories is to begin with the initial establishment of bilateral agreements among the concerned ATS units with the capability, as the experience becomes successful and demonstrates the advantages and feasibility of the radar data sharing, these bilateral agreements be extended to a Central Caribbean multilateral agreement and subsequently they could be associated to other similar agreements in the CAR/SAM Regions.

3.3.43 Likewise, the Meeting concurred that when the benefits of the radar data sharing are considered through bilateral or multilateral agreements at a subregional level, the benefits that would be obtained by supporting Air Traffic Flow Management (AFTM) should be recognized.

3.3.44 Taking into consideration Decision 5/18, the Meeting performed initial studies on ATS units where the implementation of radar data sharing would be feasible and beneficial. Based on this, the Meeting formulated the following Draft Conclusion:

DRAFT**CONCLUSION 6/15****FIRST PHASE OF BILATERAL RADAR DATA SHARING**

That, taking into account the technical feasibility studies and operational benefits carried out for the first phase of radar data sharing; Cuba, Cayman Islands and Jamaica, in coordination with COCESNA, consider initiating work and bilateral agreements in accordance with the guidelines of Appendix F for radar data exchange between the following centres: Kingston ACC/Cenamer ACC/Grand Cayman APP, Havana ACC/Kingston ACC and Cenamer ACC/Havana ACC.

3.3.45 The delegate of United States informed the Meeting that they greatly support Radar Data Sharing between States/Territories within the C/CAR and will eventually work to share data with these facilities. Currently, the USA is not in a position to share its data in the C/CAR due to ongoing efforts in data sharing with Canada. The US, however, strongly supports that efforts are needed to continue into the realization of radar data sharing in the C/CAR, specifically between those facilities that have identified that their systems are ready and capable of implementation.

3.3.46 In accordance with C/CAR WG Conclusion 5/19, the Meeting reiterated the great importance of the need to establish a system that guarantees the radar data sharing integrity, and therefore considered that this task should be developed in the future.

3.3.47 The Meeting was informed that Mexico and COCESNA initiated bilateral conversations. Moreover, Cuba and Jamaica are also establishing bilateral agreements and are carrying out studies to establish radar data sharing between the Havana ACC and Kingston ACC.

3.3.48 Taking into account the General Regional Guidelines for radar data sharing issued by GREPECAS, the Meeting continued the work of the C/CAR Working Group in order to identify ATS units that might obtain important operational and financial benefits when sharing radar data, as well as the ATS units which do not have radar facilities and that might benefit with the data availability provided by the secondary surveillance radar (SSR) systems from the neighboring ATS units. Based on the CAR/SAM Regional Plan for the surveillance systems contained in the Table CNS 4A of the FASID, the table is presented in the **Appendix G** to this part of the report, which identifies the relation between the tentative operational needs and the radar coverage available in the States/Territories/International Organizations of the C/CAR area.

3.3.49 The Meeting also indicated that as identified by the C/CAR WG and by GREPECAS, the use of the ASTERIX protocol facilitates the surveillance data exchange goal in an efficient manner. Nevertheless, it should be recognized that the radars that do not support their data transmission under this protocol should not be excluded only for this reason, from the radar data sharing with neighboring ATS units.

3.3.50 In any case, the aeronautical administrations interested in radar data sharing should provide to the other interested parties, the technical documentation required for the radar data output (that is, the format of the radar information and the communication protocol, the radar performance, as well the radar data implementation in ASTERIX format, which could vary from one radar manufacturer to another). The information exchanged between the parties should include a radar data recording with PCs based tools in order to facilitate the analysis and investigation related to the radar control.

3.3.51 Taking into consideration Cuba's experience, the Meeting considered that a thorough analysis of the ASTERIX format implementation in various SSR installed or planned in the C/CAR, concludes that the radar data exchange supported in ASTERIX format should be open and hence may operate in different ASTERIX categories, whether in CAT 001 and 002 for radars where the possibility of Mode S, CAT 034 and 048 has not been envisaged, for radars where this information transmission in Mode S is already foreseen, CAT 021 for the potential reception of surveillance information from the 1090ES aircraft transmissions expected to be implemented in the Region, and even CAT 030 and CAT 062 and 063 for data sharing coming from the Surveillance Data Process Systems (SDPS). As recognized in the C/CAR WG/5, the capacity for the transmittal of information of aircrafts identification (achieved through data transmission in ASTERIX CAT 030 and 062 format), would have a positive effect in the data integration between multiple surveillance radar systems in the C/CAR area.

3.3.52 Cuba informed that, with regard to the use of non ASTERIX radar data formats converted into ASTERIX or working with different ASTERIX radar format Categories, its experts have been working during the last years relying on its SDPS by using the protocols based in the ASTERIX format for the radar data exchange within the Cuban Republic and that this data leads from a unique system to the different Cuban ATS units, using the Cuban Civil Aviation Data Network (REDAC), as a previous pre-ATN step. Based on the experience acquired, Cuba expressed that it is willing to provide technical training for the radar data exchange to the States/Territories/International Organizations of the Sub-region.

3.3.53 Also, recognizing the level of development in the automated ATM field and the implementation status of the radar surveillance systems in most of the Central Caribbean States/Territories/International Organizations, and considering the availability of the MEVA II Communications Network for the radar data transmission, currently under its implementation process in the C/CAR, the Meeting was of the opinion that the most feasible way to exchange radar data in the initial phase should be based on the establishment of bilateral agreements, with short-term actions allowing the mutual support of adjacent ATS units, providing as such a high redundancy in the C/CAR ATC system and significantly improving air traffic control harmonization in this area, if the exchange is based as far as possible on the co-related information from the SDPS.

3.3.54 Based on the C/CAR WG Conclusion 5/17, the Meeting recommended specific actions to carry out the operational and technical personnel training, to support the implementation of radar and/or surveillance data sharing. To this respect, the Meeting developed a proposal of aspect to take into consideration for a Seminar on radar data sharing, which is presented in **Appendix H** to this part of the Report. Based on the above, the Meeting formulated the following Draft Conclusion:

DRAFT

CONCLUSION 6/16

SEMINAR ON RADAR DATA SHARING

That the C/CAR States/Territories/International Organizations and ICAO take into account the proposed subjects presented in Appendix H to this part of the report for the development of seminars on radar data sharing.

Studies on the Implementation of secondary surveillance radar in Mode S

3.3.55 The Meeting received information on the overview of the secondary surveillance radar (SSR) system in Mode S development presented in Appendix BE to the Report on Agenda Item 3 and noted that GREPECAS considered that to implement the SSR in Mode S, it is essential to study and consider the areas where the installation of this type of radar might be justified. The Meeting also considered that the implementation of Mode S in these regions is favoured by the fact that numerous SSR installed are monopulse technique and generally have the capability of allowing Mode S. Moreover, the Meeting noted that Brazil, Colombia, Mexico and Dominican Republic installed SSR in Mode S. Agenda Item 3.4 of this Meeting presents the results of the joint analysis on operational and technical aspects of the SSR in Mode S.

Studies on the regional implementation of ADS-C and ADS-B systems

3.3.56 The Meeting recalled that the AN-Conf/11 through Recommendations 1/6 and 1/7, approved the use of automated dependent surveillance-broadcast (ADS-B) system to support the global ATM system and to contribute to the achievement of global interoperability, taking into account the Recommendations of the AN-Conf/11, the Global Air Navigation Plan for CNS/ATM systems (Doc 9750) and the industry developments. Additionally, the GREPECAS through Conclusion 12/44 guided the application of Mode S extended squitter (1090 ES), as initial data link to implement the ASD-B.

3.3.57 The Meeting continued with studies on the possibility and need to implement the ADS Contract systems (ADS-C) and/or ADS-B in the Central Caribbean, considering the development overview and the SARPs status of these systems, as well as ATM needs. Likewise, Agenda Item 3.4 of this Meeting presents the results of an analysis on the initiatives of States/Territories/International Organizations of the CAR/Region for the planning and implementation of the ADS-C and ADS-B systems, related to the potential implementation airspaces, the strategy and target dates, test programmes and other aspects related with the ADS-C and ADS-B systems.

3.4 CNS/ATM

Implementation of CNS/ATM Systems in the Central Caribbean

3.4.1 Bearing in mind the Matrix on the CNS/ATM systems development in the NAM/CAR Regions developed by the NACC/DCA/2 meeting, as well as the follow-up to the second amendment to the Global Plan of air navigation for the CNS/ATM systems and to the considerations of GREPECAS, the Central Caribbean Working Group deemed convenient to recommend that the States/Territories update their respective national plans for the implementation of CNS/ATM systems, as well as other relevant actions to continue regional works in line with the guidelines of the Global Air Navigation Plan for CNS/ATM systems and ICAO SARPs.

Studies on the implementation of secondary surveillance radar in Mode S

3.4.2 The Meeting considered that, for the implementation of the secondary surveillance radar (SSR) system in Mode S, it is essential to study and consider the areas in which this installation would be justified. Therefore, and taking into account the Global Plan of air navigation for the CNS/ATM systems, it is necessary to continue the analysis on SSR in Mode S operational and technical aspects with regard to the Central Caribbean.

3.4.3 The Global Plan sets that the use of Mode S in the secondary surveillance radar enhances the surveillance function, which is a technique using a unique direction (24 bits address) for aircraft; therefore, it allows the identification and selective interrogation of aircraft equipped with Mode S transponder, and eliminating garbling.

3.4.4 The Meeting recalled that in the CAR/SAM Regions, it is not foreseen that the SSR Mode S radar surveillance be used before the year 2010; and that therefore, current plans within the CNS/ATM systems concept do not consider SSR Mode S requirements. Nevertheless, it was also recalled that Brazil, Colombia, Dominican Republic and Mexico had installed some SSR in Mode S for high traffic density terminal and en route areas.

3.4.5 Part of the evolution of ATS surveillance foreseen by ICAO indicates that SSR in Mode S has provided better data at a low cost. But the more recent introduction of data transmission surveillance systems, such as ADS-B provides another enhancement to the surveillance system at an even lower cost. It is expected that States will continue using SSR in the near future, and the increasing use of surveillance systems through data transmission will provide extended ATS surveillance coverage systems.

3.4.6 According to the paragraphs above, the Meeting considered that although most States/Territories/International Organizations do not have plans to implement in the short term ATS surveillance service with SSR in Mode S, the growth of air traffic in the Central Caribbean should also be considered and that most aircraft operating in this area would be equipped with Mode S transponders, or that might add in the future the Mode S function capability; therefore it is deemed that during the useful lifespan of these radars, the implementation of Mode S might be necessary and feasible; nevertheless, it is recommended to evaluate this possibility taking into account the development produced in ADS-C and ADS-B systems.

Study of the regional ADS-C and ADS-B systems implementation

3.4.7 The Meeting recalled that the AN-Conf/11, through its Recommendations 1/6 and 1/7, approved the use of automated dependent surveillance-broadcast (ADS-B) system to support the global ATM system and to contribute to the achievement of global interoperability and of a seamless airspace.

3.4.8 In accordance with one of the objectives of the new ICAO global ATM system envisages the operational implementation of the datalink based-surveillance systems to allow that traffic information be shown in the aircraft cockpit, supporting prediction of conflicts between the flight crew and the ATM system, improving situational awareness in the cockpit through available electronic data on ground obstacles with the required quality. In order to attain the objective expressed in the above paragraph, ICAO is proposing to introduce in the Global Plan of air navigation for the CNS/ATM systems the following strategy:

1. The implementation of enhanced surveillance techniques (ADS-C or ADS-B) will allow reductions in separation minima, enhancement of safety, an increase in surveillance capacity, improved flight efficiency, all on a cost-effective basis. These benefits may be achieved by bringing enhanced surveillance to areas where there is no primary or secondary radar, when cost-benefit models warrant it. In airspaces where radar is used, enhanced surveillance can bring further reductions in aircraft separation minima and improve, in high traffic density areas, the quality of surveillance information both on the ground and in the air, thereby increasing safety levels. The implementation of sets of quality assured electronic terrain and obstacle data necessary to support the ground proximity warning systems with forward looking terrain avoidance function as well as minimum safe altitude warning (MSAW) system will benefit safety substantially.
- 2- ADS implementation in surveillance systems for surface movement at aerodromes where weather conditions and capacity warrant will also improve safety and efficiency while implementation of cockpit display of traffic information and associated procedures will enable pilot participation in the ATM system and improve safety through greater environment situational awareness.
3. In remote and oceanic airspace where ADS-C is used, FANS capabilities exist on many air transport aircraft and could be added to business aircraft. ADS-B can be used to enhance traffic surveillance in domestic airspace. In this respect, it should be noted that the technology for Mode S (1090 ES) extended squitter is available and was accepted by the 11th Air Navigation Conference as the global choice for the ADS-B data transmission.
4. At terminal areas and at aerodromes surrounded by significant terrain and obstacles, the availability of quality-assured databases containing digital sets of data representing terrain surface in the form of continuous elevation values and digital sets of obstacle data of features, having vertical information in relation to adjacent and surrounding features considered hazardous to air navigation, will improve situational awareness and contribute to the overall reduction of the number of controlled flight into terrain-related accidents.

3.4.9 The Meeting considered these elements that will be included in the global strategy, will serve to follow up and update the initiatives of the States/Territories/International Organizations of the CAR Region for planning and implementation of ADS-C and ADS-B systems, in potential implementation airspace, the strategy and target dates, programmes and other aspects related with ADS-C and ADS-B systems.

3.4.10 Also, the Meeting recalled that the Fourth Meeting of the GREPECAS ATM/CNS Subgroup noted the initiatives produced in the CAR/SAM Regions on the implementation of ADS-C and ADS-B. Additionally, Cuba informed on its plans for the implementation of ADS-B in Cayo Largo del Sur and Gran Piedra.

Integration of ATM Automated systems

3.4.11 The Central Caribbean Working Group recalled that the GREPECAS/13 meeting considered that there is at present a high automation level in the control Centres, therefore the States/Territories/International Organizations should continue working according to the Regional Strategy including other related activities, such as: the integration of automation systems, the use of a Interface Control Document (ICD), foster the planning and development of human resources and establish coordination among the States/Territories/International Organizations.

3.4.12 The Meeting noted that GREPECAS Automation Task Force will continue reviewing the ICD offered by Canada, Mexico and United States to obtain a uniform application material for the CAR/SAM Regions, aimed at achieving a evolutionary integration and the harmonized interoperability of the ATM automated systems among the NAM, CAR and SAM Regions.

3.4.13 Bearing in mind the work carried out by GREPECAS, the C/CAR WG agreed to continue its actions to establish the integration of ATM automated systems among ATS units of the Central Caribbean. To that end, Cayman Islands, Cuba, Jamaica and COCESNA will begin actions as described in Draft Conclusion 6/14 adopted for radar data sharing. At a later phase, Cuba, Dominican Republic and Haiti might continue the integration work, once Haiti implements its automated system.

3.5 Aeronautical Meteorology (MET)

3.5.1 The Secretariat presented up-to date information on the status of new CNS technologies applicable to both the ATS system and aircraft, which will substantially facilitate and improve the currently provided ATS. This process will require additional meteorological support to ATS and better coordination between the ATS and meteorological authorities. The Meeting recalled that these meteorological components supporting CNS/ATM systems are closely related with the world area forecast system (WAFS), the international airways volcano watch (IAVW) and the exchange of operational meteorological information (OPMET).

3.5.2 A pending task of the previous meetings of the C/CAR WG was the development of a C/CAR MET points of contact database, in view of the fact that there has been less than full participation of MET specialists in these meetings, and coordination should be effected via electronic mail (e-mail).

3.5.3 The Meeting noted that meteorological procedures are experiencing important changes, However, in view of the reduced participation at ICAO meetings, and as a result of the problems encountered with regard to the electronic coordination and MET information exchange among the Central Caribbean States and Territories, the Meeting agreed the following:

DRAFT

CONCLUSION 6/17

APPOINTMENT OF MET EXPERTS IN THE C/CAR STATES/TERRITORIES

That, as applicable, the C/CAR Civil Aviation Administrations, in coordination with the aeronautical meteorological services, take the corresponding actions in order to:

- a) designate a MET officer to participate as a point of contact in behalf of the aeronautical meteorological service;
- b) send to the ICAO NACC Office by **1 June 2006** the name and electronic address of the appointed MET focal point; and
- c) provide to the MET point of contact the support of the required electronic means so that he/she may be contacted by the Rapporteur of the C/CAR MET Task Force and the Secretariat of the GREPECAS AERMET Subgroup, in order to carry out the necessary coordination concerning the respective work programmes.

3.5.4 In order to carry out the MET tasks approved by GREPECAS and the coordination work among the Central Caribbean States and Territories, the Meeting agreed that the C/CAR Civil Aviation Administrations should support the participation of the MET officer appointed by the States/Territories at the ICAO meetings presented by the Secretariat under Agenda Item 7.

3.5.5 In order to effectively comply with the tasks assigned by the Directors General of Civil Aviation of the Central Caribbean, the Meeting agreed that the Terms of Reference of the C/CAR MET Task Force should be updated. The corresponding information is shown under Agenda Item 6 to this report.

3.6 Search and Rescue (SAR)

3.6.1 The C/CAR WG noted the great progress attained on SAR in the Central, Caribbean, especially those obtained by Cuba yand Dominican Republic. Venezuela also informed that it is presently under process of modernization of the SAR service.

3.6.2 The Meeting recognized that ICAO recommendation for the emergency locator transmitter (ELT) implementation at 406 MHz would considerably help improving SAR Service provided in the States/Territories of the Central Caribbean, and to that end, the following Draft Conclusion was formulated:

DRAFT

CONCLUSION 6/18

ADOPTION OF EMERGENCY LOCATOR TRANSMITTERS (ELTs) AT 406 MHZ

That the C/CAR States/Territories/International Organizations, in the terms and periods defined by ICAO:

- a) establish that all international transport aircraft including passengers and cargo that perform operations in the C/CAR area be equipped with emergency locator transmitters (ELT) at 406 MHz in accordance with Annex 6 parts I, II and III;
- b) take the necessary measures so that operators, including the ones in general aviation, use ELTs at 406 MHz or equivalent; and
- c) ensure that necessary arrangements and the requirements be established for the register of all the ELTs at 406 MHz, and stipulate that these register data be available 24 hours a day for any RCC that might need them.

3.6.3 In compliance with the Terms of Reference of the Working Group, the Meeting agreed that the IAMSAR Manual (Doc 9731) is the suitable guide for the States and Territories of the Central Caribbean to develop and review their own SAR national plans and manual, which would foster the harmonization of regional procedures for the provision of the SAR service and at the same time to finalize the task entrusted by the Directors of Civil Aviation. In this regard, the Meeting formulated the adoption of this Manual through the following Draft Conclusion:

DRAFT

CONCLUSION 6/19

ADOPTION OF THE IAMSAR MANUAL FOR THE DEVELOPMENT OF NATIONAL SAR MANUALS OF THE CENTRAL CARIBBEAN STATES/TERRITORIES

That the States/Territories who have not yet done so, henceforth use as a reference the IAMSAR Manual (Doc 9731) for the development of their National SAR rules.

Civil-military coordination

3.6.4 Since most C/CAR States, the SAR operations are performed by the Military Institutions, the Ad hoc Group proposes to encourage the Director Generals of Civil Aviation to promote a close co-operation and coordination between the authorities and the State's Civil and Military organizations for the effective provision of SAR services.

3.6.5 The Group concurred that in accordance with the ICAO NACC Regional office Schedule of Meetings, Seminars and Workshops shown under Agenda Item 7 to this report, the Civil Aviation Administrations of the States/Territories of the Central Caribbean should support the participation of their SAR officers at the NAM/CAR Civil-Military Coordination Seminar, to be held from 17 to 18 April 2006 in Dominican Republic; and at the SAR Meeting for the NAM/CAR/SAM Regions to be held in Merida, Mexico from 24 to 28 July 2006.

SAR Training in the Central Caribbean

3.6.6 Considering the training needs in the Region related to SAR, the Meeting agreed to refer the training needs and information on Training Centres of the Region where courses for SAR experts are available, to the Human Resources Task Force. In this sense, the delegate of Venezuela, expressed his Administration willingness to collaborate in the preparation of C/CAR SAR experts, which would be duly coordinated and submitted in the next C/CAR WG Meeting.

Agreements between RCCs of the Central Caribbean

3.6.7 The Meeting recalled that not all the aeronautical authorities of the C/CAR States/Territories have under their job providing SAR service. Nevertheless, according to the requirements established in Annex 12, the Meeting was of the opinion that firm actions be promoted to contribute to the establishment of SAR Agreements between the RCCs, so that the States may comply with their international commitments.

3.6.8 The delegates of Cuba, Dominican Republic, Haiti and Jamaica expressed their willingness to foster the establishment of a multilateral SAR agreement between the RCCs of these States and considered the SAR Draft Agreement of Doc 9731, included in **Appendix I** to this part of the report are the suitable guidelines for collaboration purposes pursued in the Central Caribbean. Taking into account that the agreements between the RCCs are an essential part to foster improvements to the regional SAR system, the Meeting adopted the following Draft Conclusion:

DRAFT

CONCLUSION 6/20

**ESTABLISHMENT OF SEARCH AND RESCUE (SAR)
AGREEMENTS BETWEEN THE CENTRAL CARIBBEAN RCCs**

That, based on the draft agreement included in Appendix I to this part of the report:

- a) the States and Territories of the Central Caribbean have their SAR Coordinators review/develop the SAR Letters of Agreement between the corresponding RCCs;
- b) Civil Aviation Authorities of Cuba, Dominican Republic, Haiti and Jamaica establish a multilateral SAR agreement in the short term; and
- c) Civil Aviation Authorities of the States and Territories of the Central Caribbean endorse the SAR agreements achieved and present the progress status to the Eighth Meeting of Directors of Civil Aviation of the Central Caribbean (CCAR/DCA/8).

SAR implementation project in Haiti

3.6.9 The Meeting welcomed the initiative of Haiti on the implementation of its SAR system and offered to collaborate as far as possible to achieve the implementation's success. Haiti's action plan included in **Appendix J** to this part of the report was considered very valuable to solve the aforementioned deficiency in the short term.

C/CAR SAR Committee

3.6.10 When discussing the activation of the Central Caribbean SAR Committee, it was considered that for the time being, it is more convenient to continue with the work of the SAR Task Force and to reconsider the activation of the C/CAR SAR Coordination Committee when appropriate conditions are created in the future.

APPENDIX A

ESTADO DE IMPLEMENTACION DE LOS SISTEMAS AIS/MAP C/CAR/ STATUS OF IMPLEMENTATION OF THE C/CAR AIS/ MAP SYSTEMS

ESTADO/TERRITORIO

STATES/TERRITORIES: CAYMAN ISLANDS/ISLAS CAIMANES

No	Tareas/Tasks	Fecha de comienzo/ Start date	En proceso/ In process	Cumplido/ Finalized	Dificultades encontradas durante el cumplimiento de las tareas/ Difficulties encountered during the execution of the tasks
	1	2	3	4	5
1	Armonización con las coordenadas de puntos limítrofes/ Harmonization with the WGS 84 bordering points coordinates.			X	This was achieved during meetings regarding Letters of Agreement between each States/Territories/International Organization. Esto se logró durante reuniones sobre Cartas de Acuerdo entre cada Estado/Territorio/Organización Internacional.
2	Implantación total del WGS 84/ Total Implementation of WGS 84.			X	Completed. Completado.
3	Implantación de un sistema de gestión de calidad/ Implementation of a quality management system.			X	Draft was done – completion in 2006. El proyecto se hizo – finalización en 2006.
4	Implantación del plan de automatización AIS/ Implementation of the AIS Automation plan.			X	Completed and upgrade to be implemented in March 2006. Completado y la modernización se implantará en marzo de 2006.
5	Actualización de las tablas de deficiencias/ Updating of the deficiencias tables.			X	Completion in March 2006. Finalización en marzo de 2006.

ESTADO/TERRITORIO
STATES/TERRITORY: DOMINICAN REPUBLIC/REPÚBLICA DOMINICANA

No	Tareas/Tasks	Fecha de comienzo/ Start date	En proceso/ In process	Cumplido/ Finalized	Dificultades encontradas durante el cumplimiento de las tareas/ Difficulties encountered during the execution of the tasks
	1	2	3	4	5
1	Armonización con las coordenadas de puntos limítrofes/ Harmonization with the WGS 84 bordering point coordinates.		X		
2	Implantación total del WGS 84/ Total implementation of WGS 84.			X	
3	Implantación de un sistema de gestión de calidad/ Implementation of a quality management system.	Pending Pendien- -te			Presently, the AIS is under an evolutionary process based on the results of a survey carried out. From that service, it is planned to begin a reorganization process and eventually, to begin the implementation of a quality assurance system. Actualmente el AIS está en proceso evolutivo basado en los resultados arrojados por un levantamiento realizado y a partir del mismo iniciar un proceso regorganizativo y eventualmente iniciar la implementación de un sistema de gestión de calidad.
4	Implantación del plan de automatización AIS/ Implementation of the AIS Automation plan.	Pending Pendien- -te			Presently several proposals are being evaluated in order to chose the most convenient in terms of functionality and adaptability with other related services. Actualmente se están evaluando varias propuestas para elegir lo más conveniente en términos de funcionabilidad y adaptabilidad con otros servicios afines.
5	Actualización de las tablas de deficiencias/ Updating of the deficiencias tables.			X	The Coordinator has received information container of the current reality with respect to tables , so that the information be submitted to the ICAO NACC Office. El Coordinador ha recibido la información contenida de la realidad actual con respecto a las tablas, de manera que dicha información sea entregada a la Oficina NACC de la OACI.

ESTADO/TERRITORIO
STATES/TERRITORY: HAITI

No	Tareas/Tasks	Fecha de comienzo/ Start date	En proceso/ In process	Cumplido/ Finalized	Dificultades encontradas durante el cumplimiento de las tareas/ Difficulties encountered during the execution of the tasks
	1	2	3	4	5
1	Armonización con las coordenadas de puntos limítrofes/ Harmonization with the WGS 84 bordering points coordinates.		X		
2	Implantación total del WGS 84/ Total implementation of WGS 84.			X	
3	Implantación de un sistema de gestión de calidad/ Implementation of a quality management system.	Oct. 2006			
4	Implantación del plan de automatización AIS/ Implementation of the AIS Automation plan.	Oct. 2006			
5	Actualización de las tablas de deficiencias/ Updating of the deficiencias tables.		X		

ESTADO/TERRITORIO
STATES/TERRITORIES: JAMAICA

No	Tareas/Tasks	Fecha de comienzo/ Start date	En proceso/ In process	Cumplido/ Finalized	Difficultades encontradas durante el cumplimiento de las tareas/ Difficulties encountered during the execution of the tasks
	1	2	3	4	5
1	Armonización con las coordenadas de puntos limítrofes/ Harmonization with the WGS 84 bordering points coordinates.			X	Finalized in July 2005. Difficulties: coordination, compliance of adjacent FIRs with derived coordinates. Finalizada en julio de 2005. Dificultades: coordinación, cumplimiento de FIR adyacentes con las coordenadas derivadas
2	Implantación total del WGS 84/ Total implementation of WGS 84.			X	Finalized in July 2005. Finalizada en julio de 2005.
3	Implantación de un sistema de gestión de calidad/ Implementation of a quality management system.		X		Manual to be developed by 2007. Manual a ser elaborado hacia 2007.
4	Implantación del plan de automatización AIS/ Implementation of the AIS Automation plan.		X		Scheduled to be finalized by 2007. Difficulties: manual to be developed, source software and required technology to facilitate the process. Se planea finalizar en 2007. Dificultades: manual a ser elaborado, software fuente y tecnología requerida para facilitar el proceso.
5	Actualización de las tablas de deficiencias/ Updating of the deficiencias tables.		X		Responsibility relies with DANS (Rapporteur) Responsabilidad de DANS (Relator)

ESTADO/TERRITORIO**STATES/TERRITORY: TURKS AND CAICOS/ISLAS TURCAS Y CAICOS**

No	Tareas/Tasks	Fecha de comienzo/ Start date	En proceso/ In process	Cumplido/ Finalized	Dificultades encontradas durante el cumplimiento de las tareas/ Difficulties encountered during the execution of the tasks
	1	2	3	4	5
1	Armonización con las coordenadas de puntos limítrofes/ Harmonization with the WGS 84 bordering points coordinates.		X		Not yet commenced due to resource commitments. Aún no ha comenzado debido a cuestiones presupuestales.
2	Implantación total del WGS 84/ Total implementation of WGS 84.			X	
3	Implantación de un sistema de gestión de calidad/ Implementation of a quality management system.		X		In progress as part of overall QMS being developed in conjunction with Air Safety Support International. En proceso como parte del QMS Air Safety Support International.
4	Implantación del plan de automatización AIS/ Implementation of the AIS Automation plan.		X		As per part 1. Según parte 1.
5	Actualización de las tablas de deficiencias/ Updating of the deficiencias tables.				

APPENDIX B

SUMMARY OF THE STATUS OF IMPLEMENTATION OF THE CAR AIS/MAP SYSTEMS

STATES/ TERRITORIES	Harmonization with the WGS-84 bordering points coordinates			Total 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			X			X			X			X		X		
Cuba			X			X			X			X		X		
Dominican Republic		X				X	X			X				X		
Haiti		X				X	X Oct06			X				X		
Jamaica			X			X		X			X			X		
Netherlands Antilles																
Turks and Caicos Islands		X				X		X				X		X		
United States																

APPENDIX C

TABLE CNS 1Bb – ATN GROUND-GROUND APPLICATIONS PLAN / TABLA CNS1 Bb – PLAN DE APLICACIONES TIERRA-TIERRA ATN

ATN GROUND-GROUND APPLICATIONS PLAN / PLAN DE APLICACIONES TIERRA-TIERRA					
Administration and Location/ Administración y localidad	Application Type/ Tipo de Aplicación	Conneted with Administration & Location of/ Conectada con Administración y Localidad de	Used Standard / Norma usada	Implementation Date/ Fecha de Implementación	Remarks/ Observaciones
1	2	3	4	5	6
Aruba	AMHS	TBD/Por determinar	ATN	TBD/Por determinar	
Estados Unidos, Atlanta United Status, Atlanta	AMHS	TBD/Por determinar	ATN	03 2007	Availability to connect to the CAR/SAM Regions/Disponibilidad de conectar con las Regiones CAR/SAM
Nassau, Bahamas	AMHS	FAA-Atlanta	ATN	TBD/Por determinar	
Cayman Islands / IslasCaimanes	AMHS	FAA-Atlanta	ATN	TBD/Por determinar	
Dominican Republic, Santo Domingo/ República Dominicana, Santo Domingo	AMHS	FAA-Atlanta	ATN	TBD/Por determinar	
Haiti, Port-au-Prince/ Haití, Puerto Príncipe,	AMHS	FAA-Atlanta	ATN	TBD/Por determinar	
Cuba, Havana Cuba, La Habana	AMHS	FAA-Atlanta	ATN	2009	
Jamaica, Kingston	AMHS	FAA-Atlanta	ATN	2008	
Venezuela, Maiquetia	AMHS	FAA-Atlanta	ATN	2009	
Netherlands Antilles (Curacao) / Antillas Neerlandesas (Curazao)	AMHS	FAA-Atlanta	ATN	TBD/Por determinar	
Panama, Panama City/ Panamá, Ciudad de Panamá	AMHS	FAA-Atlanta	ATN	TBD/Por determinar	
COCESNA	AMHS	FAA-Atlanta	ATN	TBD/Por determinar	

APPENDIX D

CURRENT CUBAN VHF/AMS REMOTE STATIONS NETWORK (REMOTE STATIONS)

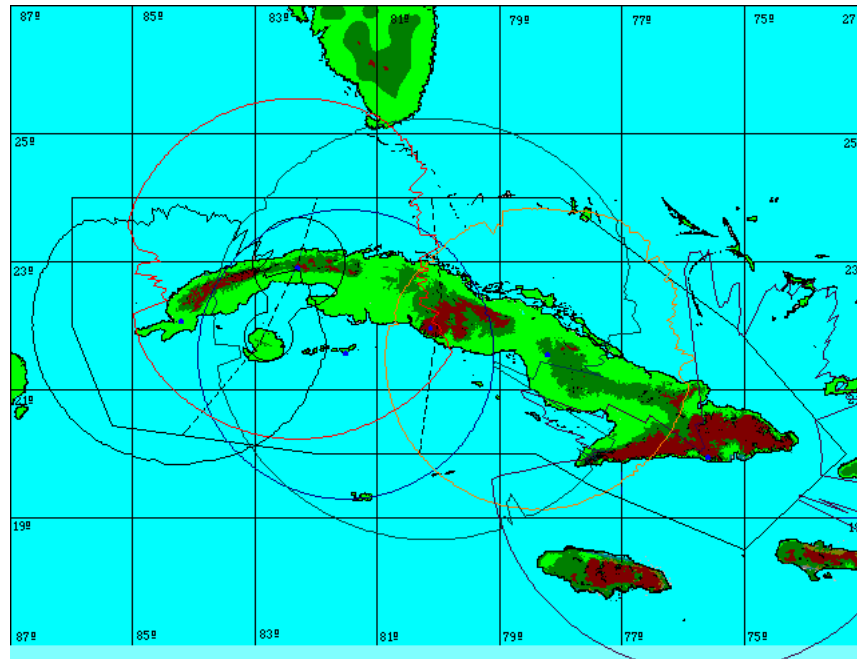


Figure 1: VHF/AMS Remote Stations: Sandino, Rayo, Cayo Largo, Pico San Juan, Florida and Gran Piedra (FL 100).

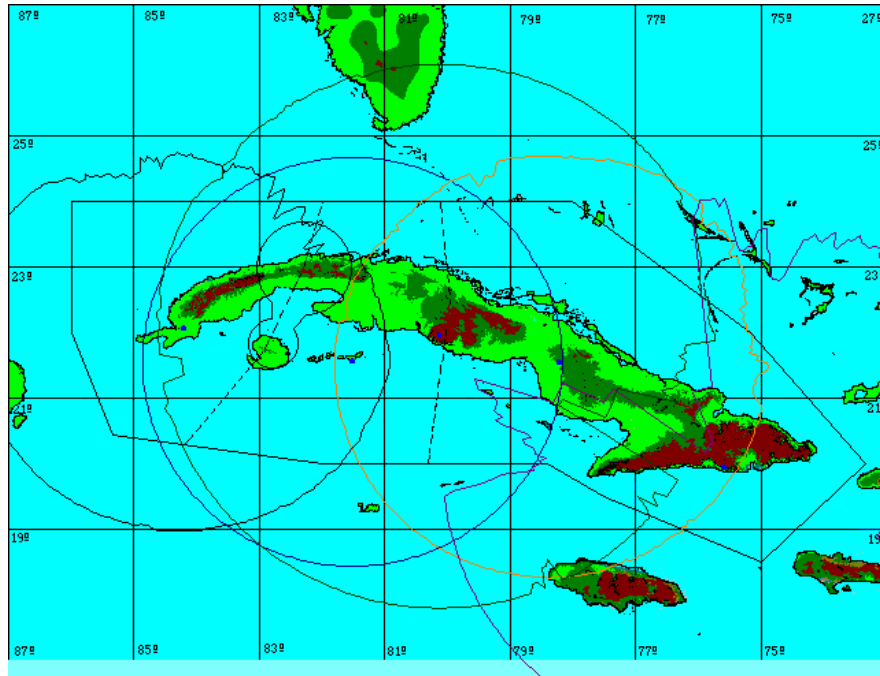


Figure 2: VHF/AMS Remote Stations: Sandino, Rayo, Cayo Largo, Pico San Juan, Florida and Gran Piedra (FL 200).

SIXTH CENTRAL CARIBBEAN WORKING GROUP MEETING (C/CAR WG/6)
SUMMARY OF DISCUSSIONS
APPENDIX E TO AGENDA ITEM 3

3E-1

APPENDIX/APÉNDICE E

CAR/SAM FASID TABLE CNS 2A – TABLA CNS 2A
(Part of the CAR Region/Parte de la Región CAR)

Country and location Pays et emplacement País y localidad	Service or function Service ou fonction Servicio o función	VHF voice Voix VHF Voz VHF	VHF data Données VHF Datos VHF	HF voice Voix HF Voz HF	HF data Données HF Datos HF	Satellite voice Voix satellite Voz por satélite	Satellite data Données satellite Datos por satélite	Mode S Modo S	Remarks Remarques Observaciones
1	2	3	4	5	6	7	8	9	10
CUBA									
MUCM CAMAGUEY/ Ignacio Agramonte	APP-SR-L TWR	1 1 (1)							
MUCL CAYO LARGO DEL SUR/Viño Acuña	APP-L TWR	1 (1) 1 (1)							
MUCA CIEGO DE AVILA/ Máximo Gómez	APP-L TWR	1 1 (1)							
MUHA HABANA	ACC-SR-U ACC-SR-I GP-U	5 (4)-ER 3 (1)-ER 2 (1)	2 (06/0610)	CAR-A (6)	X (06/06)				
MUHA HABANA/José Martí	APP-SR-L APP-SR-I TWR SMC ATIS	1 1 (1) 1 (1) 1 (1) 1 (1)							D-ATIS 2008
MUHG HOLGUIN/Frank País	APP-SR-L TWR	1 1(1)							
MUCU SANTIAGO DE CUBA/ Antonio Maceo	APP-SR-I TWR SMC	1 (1) 1 (1) 1							
MUVR VARADERO/Juan Gualberto Gomez	APP-SR-L TWR SMC ATIS	1 1 (1) 1 1							D-ATIS 2008
DOMINICAN REPUBLIC									
MDBH BARAHONA/ Maria Montes Intl.	TWR	1 (1)							
MDHE HERRERA/ Herrera Intl.	TWR	1 (1)							
MDLR LA ROMANA/ La Romana Intl.	APP-L TWR	1 (1) 1 (1)							
MDPP PUERTO PLATA/ Gregorio Luperon	APP-SR-I TWR SMC	1 (1) 1 (1) 1 (1)							

SIXTH CENTRAL CARIBBEAN WORKING GROUP MEETING (C/CAR WG/6)

SUMMARY OF DISCUSSIONS
APPENDIX E TO AGENDA ITEM 3

3E-2

Country and location Pays et emplacement País y localidad	Service or function Service ou fonction Servicio o función	VHF voice Voix VHF Voz VHF	VHF data Données VHF Datos VHF	HF voice Voix HF Voz HF	HF data Données HF Datos HF	Satellite voice Voix satellite Voz por satélite	Satellite data Données satellite Datos por satélite	Mode S Modo S	Remarks Remarques Observaciones
1	2	3	4	5	6	7	8	9	10
MDPC PUNTA CANA/Punta Cana Intl.	APP-L TWR	1 1 (1)							
MDST SANTIAGO/Cibao Santiago Intl.	APP-L TWR	1 1 (1)							
MDCS SANTO DOMINGO	ACC-U ACC-SR-U GP	4 1 (1) 1	1 (06/08)						
MDSD SANTO DOMINGO/ De las Américas Intl.	APP-SR-I TWR SMC ATIS CLRD	2 (1) 1 (1) 1 (1) 1 (1) 1							
HAITI									
MTCH CAP HAITIEN/Intl.	APP-L TWR	1 1 (1)							
MTEG PORT-AU-PRINCE	ACC-SR-U GP	1 (1) 1	1 (06/08)						
MTPP PORT-AU-PRINCE/Intl.	APP-SR-I APP-I TWR SMC	1 1 (1) 1 (1) 1							
HONDURAS									
MHTG TEGUCIGALPA (CENAMER)	ACC-SR-U GP	7 (4) 1	3 (06/08)	CAR-A (6) SAM-1 (2)	X (06/08)	X (06/08)	X (06/08)		
JAMAICA									
MKJK KINGSTON	ACC-SR-U ACC-U GP	1 5 (2) 1	2 (06/06)		X (06/06)	X (06/06)	X (06/06)		
MKJP KINGSTON/Norman Manley Intl.	APP-SR-1 APP-I TWR SMC ATIS	1 1 (1) 1 1 (1) 1							
MKJS MONTEGO BAY/ Sangster Intl.	APP-SR-I APP-I TWR SMC ATIS	1 1 1 (1) 1 (1) 1							

APPENDIX F**ACTION PLAN FOR THE ACHIEVEMENT OF BILATERAL AGREEMENTS IN SUPPORT OF RADAR DATA SHARING BETWEEN INTERESTED ATS UNITS**

1. Develop and coordinate a draft letter of agreement between the interested parties in supporting the radar data sharing, defining the sharing scope and the responsibilities in the radar data sharing, in the party providing the radar data as the one utilizing it for its ATS service. Likewise, each party's responsibility should be expressed on the correspondent cost payment of this radar data sharing, mainly with regard to the communication services payment.
2. Each part identification of the required staff to carry out the work and also the training needs of these staff, in the technical and operational aspects.
3. Train the maintenance staff in both units so that they count with the minimum necessary knowledge allowing the correct implementation of radar data exchange and that the procedures related to the new exigencies concerning surveillance may be established.
4. Train ATC operational staff bearing in mind the new planned enhancements to be obtained in view of the radar data exchange.
5. To conduct a detailed survey for the necessary equipment's implementation for the radar data sharing, including the communication needs for this implementation. This includes the exchange of technical and operational information concluding that the radar data sharing will allow to efficiently obtain the operational requirements pursued, in relation to the costs.
6. A joint evaluation of the integration of a new radar to the SDPS system concerned. This evaluation should consider quality assurance of the radar piece of information to be obtained (availability, integrity, accuracy and service continuity) as well as the procedures to be established concerning deviations to the standards in the radar signal used in the exchange of data. This evaluation should also include the evaluation of monoradar and multiradar track evaluation, as well as the simultaneous recording of radar data from the previously existent sources with the radar source integrated and the evaluation of the adaptations to the SDPS software consider necessary in order to integrate the new signal. These tests are necessary, whether if the radar signal sharing will be used with redundancy purposes or if it has the intention to use the radar signal sharing as the only radar source for the ATS services provision.
7. Temporary implementation of a radar signal sharing in a pre-operational environment, which allows the execution of the technical tests considered appropriate and convenient.
8. Survey on the operational aspects which have achieved improvement with the introduction of radar sharing between the units and evaluation of these improvements in relation to the real costs derived from the implementation, in financial and human resources.
9. Final adjustments, validation and certification of the radar data sharing use by the relevant aeronautical authorities.
10. Development and establishment of the letter of agreement between the Parties, taking into account the compliance with the objectives and the technical and operational capabilities achieved during the project.
11. Operational execution of the ATS services considering the radar data sharing.

APPENDIX G

TENTATIVE GUIDE FOR THE ANALYSIS OF THE RADAR DATA SHARING IN THE CENTRAL CARIBBEAN

State	ATS Units	Usable coverage or potential improvement in the radar data redundancy
Aruba	Aruba APP	Usable radar data from Curacao.
Bahamas	Nassau APP	Usable radar data from Cuba and Miami (United States).
Cayman Islands	Cayman APP	Usable radar data from Cuba, Jamaica and COCESNA.
Cuba	Havana ACC	Usable radar data from Jamaica, Mexico, Miami (United States) and COCESNA (radar planned in Cayman Islands).
Dominican Republic	Dominican Republic ACC	Usable radar data from Netherlands Antilles and Puerto Rico (United States).
Haiti	Port-au-Prince ACC	Usable radar data from Jamaica. and Dominican Republic.
Jamaica	Kingston ACC	Usable radar data from Cuba and COCESNA (radar planned in Cayman Islands).
Mexico	Mérida ACC	Usable radar data from Cuba and COCESNA.
Netherlands Antilles	Curacao ACC	Usable radar data from Aruba, Colombia, Jamaica, Puerto Rico (United States), Dominican Republic and Venezuela.
United States	Miami ACC San Juan ACC	Usable radar data from Cuba and Bahamas. Usable radar data from Dominican Republic.
COCESNA	CENAMER ACC	Usable radar data from Cuba, Mexico, and radar planned in Cayman Islands.

APPENDIX H

PROPOSAL OF ACTIONS TO BE TAKEN INTO ACCOUNT FOR A SEMINAL ON RADAR DATA EXCHANGE

1 General considerations to be covered:

- a) make an inventory of radar installed in C/CAR including their specifications;
- b) identify training needs for radar technicians and air traffic controllers;
- c) identify technical requirements for the implementation of radar data sharing within the C/CAR environment;
- d) share the technical and operational experience on radar data sharing from other regions, particularly useful information in respect to errors and or omissions and discuss measures to be taken to avoid or mitigate such occurrences;
- e) address means to achieve cost-effectiveness, reliability and integrity of data products offered by the system;
- f) discuss methods to ensure that timely, accurate and quality assured radar data information is exchanged;
- g) obtain a high level view of system components, common systems and common user interfaces;
- h) discuss the type of data to be exchanged and the established of priorities for their implementation taking due consideration of ATC operational requirements;
- i) discuss methods to ensure that the system integrates the functionality of all current regional radar automation systems;
- j) discuss resource and priority issues for system implementation;
- k) provide the air navigation service providers with special reports on developments in the area of radar data and ADS-B data sharing;
- l) the protection of information obtained from shared radar data (see Assembly resolution A 35-17);
- m) discuss and plan of system policies;
- n) achieve agreement on a common specification for radar sensor hardware and software;
- o) establish common standards for data acquisition methods;
- p) define, test and implement adequate communication methods and protocols as well as dissemination procedures; and
- q) discuss the testing of data communication and protocol telecommunication of the network, as well as monitoring and management of the system.

2 Technical considerations to be covered

- a) discuss message transmission formats, in particular the All Purpose Structured European Surveillance Information Exchange and its benefits.(Asterix);
- b) define the data formats and interfaces to realise an optimal data exchange;
- c) evaluate and recommend suitable data communication links;
- d) discuss the availability and performance of equipment for radar message conversion and message distribution system;
- e) present technical studies of radar data sharing to participants;
- f) discuss specifications for the network node, its location and legal implications;

- g) discuss specification design, acceptance testing and evaluation of the system;
- h) discuss the similar regional problems for implementing radar data sharing, if any, and methods of resolution;
- i) discuss the implementation of (radar) data against constraints experienced and issues which rose during implementation projects in other areas;
- j) provide expert advice to telecommunication engineering; identifying the cost/benefit advantages for implementing radar data sharing specifically to facilitate the flow of traffic within the C-CAR;
- k) discuss methods and procedures for maintenance as well as possibilities for system enhancements and upgrades;
- l) develop and standardize appropriate quality procedures;
- m) make States/Territories better acquainted with new communication tools such as ADS-B, which may support radar surveillance;
- n) the provision of assistance to States/Territories in their decision making process for the selection of the necessary equipment, software development or installation, system support or installation, and the further enhancement of the system with mode S;
- o) discuss the availability of compatible replacement to avoid system failures and outages;
- p) discuss the development describing the risk analysis and the mitigation actions by the system supplier, maintenance service suppliers and air navigation service suppliers;
- q) discuss radar data sharing agreement with the assistance of persons in the legal field and ICAO legal Bureau.

3 Operational considerations to be covered.

- a) discuss procedures to make the system user friendly in order to facilitate the controller to access easily only relevant data, so as to prevent the system to overflow the controller with information, which might adversely affect the controller's decision-making process;
- b) trigger discussions on operational requirements within the region in order to increase safety;
- c) discuss the perceived deficiencies within the system in other regions and identify the most appropriate action that should be taken in order to avoid or minimise the same deficiencies within the C/CAR;
- d) discuss operational evaluations in areas making use of radar data sharing such as its influence on the capabilities of ATC units and the target level of safety, including the response of controllers with regard to the system;
- e) discuss operating problems, which might have been experienced by ATS of other regions participating in radar data sharing exchange so that these can be taken into account when developing plans for its implementation;
- f) discuss contemporary functional requirements and solutions for congestion on the network.

APPENDIX I

AGREEMENT ON AERONAUTICAL AND/OR MARITIME SEARCH AND RESCUE BETWEEN:

_____, _____, _____,
_____.

1 INTRODUCTION

Knowing the importance of co-operation in search and rescue (SAR), and of the provision of expeditious and effective SAR services;

Desiring to support the provisions of the International Convention on Maritime Search and Rescue of the International Maritime Organization (IMO) and/or the Convention on International Civil Aviation of the International Civil Aviation Organization (ICAO); and

Seeking to provide an overall plan for SAR co-ordination, use of available resources, mutual assistance, and efforts to improve SAR services;

The Parties have agreed as follows:

2 EXTENT OF ASSISTANCE

The Parties agree to co-operate in the following areas:

- (a) Support each other by pooling SAR facilities as appropriate for operations within their respective search and rescue regions (SRRs);
- (b) Make, and respond to, requests for operational assistance between the designated rescue co-ordination centres (RCCs) or rescue sub-centres (RSCs) of the Parties as capabilities allow;
- (c) Develop procedures and communications appropriate for co-ordination among facilities of both Parties responding to the same distress incident, in co-ordination between the RCCs or RSCs of the Parties;
- (d) Normally apply the guidance of the International Aeronautical and Maritime SAR manuals regarding SAR operational procedures and communications;
- (e) Work to establish agreed procedures, with balanced concern for sovereignty and for saving lives, regarding entry of various types of SAR facilities into the territory of the other Party, solely for a search or a rescue operation; and
- (f) Enter into other collaborative SAR efforts which many include:
 - Mutual visits by SAR personnel of the parties;
 - Joint training or exercises
 - Co-operation in development of SAR procedures, techniques, equipment, or facilities;
 - Exchange of pertinent SAR or communication information; and
 - Establishment of one or more SAR committees to provide a means for ongoing co-operation in improving SAR effectiveness.

3. SEARCH AND RESCUE REGIONS

Establishment of SRRs is intended only to effect an understanding concerning where each Party accepts primary responsibility for co-ordinating or providing SAR services. SRRs of the Parties shall be separated by lines connecting points as follows: [appropriate co-ordinate points describing applicable lines.]

4. TERMS OF AGREEMENT

Each Party will:

- (a) Keep the other fully and promptly informed of all SAR operations of mutual interest, or which may involve use of facilities of the other Party;
- (b) Keep information readily available on the availability of any SAR facilities or other resources which may be needed for implementing these agreements;
- (c) Authorize its RCC(s) to request assistance from the RCC(s) of the other Party, and to provide all pertinent information on the distress situation and scope of assistance needed;
- (d) Authorize its RCC(s) to promptly respond to any request for assistance from an RCC of the other Party;
- (e) Authorize its RCC(s) to promptly arrange, or arrange in advance, with other national authorities for territorial entry of SAR of the other Party (including overflight or landing of SAR aircraft, in similar accommodation of surface (land or water) SAR units) as circumstances dictate for fueling, medical or other appropriate and available operational support, or in response to a request to the RCC of the other Party for assistance of those facilities which will involve territorial entry;
- (f) Normally fund its own activities in relation to this agreement unless otherwise arranged by the Parties in advance, and, in any event, will not allow a matter of reimbursement of costs to delay response to persons in distress.

5. GENERAL PROVISIONS

This Agreement:

Shall enter into force... [provisions as appropriate];
May be amended ... [provisions as appropriate]; and
May be terminated or superseded ...[provisions as appropriate].

APPENDIX J

SAR IMPLEMENTATION PROJECT IN HAITI

1. An aeronautical Search and Rescue organization is scheduled to be implemented in Haiti during the year 2006. Consequently the team responsible of that project would like to inform the States of the Central Caribbean about the progress of the work carried out in that field. It goes without saying that the SAR/Meeting – Workshop above-mentioned within the references can be considered as the key elements which foster the future implementation of the SAR Organization in Haiti. Nevertheless the ATM SAR Expert appointed at the NACC Office recently has motivated the States of the Central Caribbean by encouraging those who don't have SAR services to do their best to implement them in the interest of Air Navigation Services within the region. Also the States who have already done so are urged to improve them and in that case will render better services to the Air Operators serving the region.

2. Some activities have been planned in the framework of the establishment of the SAR Organization such as:

- Review of the SAR manuals
- Elaboration of the different agreements
- Elaboration of the MOUs
- Elaboration of cooperation agreements between adjacent RCCs
- Preparation of SAR forms
- Delimitation of Search Rescue Region SRRs and sub-region (SRSs)
- Realization of visits at national and international level
- Identification of SAR means
- Training
- Meeting with national entities concerned
- Meeting with private and voluntary organizations
- Signature of SAR agreements, protocols and arrangements
- Implementation of a Coordination Committee
- Budget
- Identification of the RCC and RSCs
- Coordination with ICAO.

Agenda Item 4: Safety Oversight activities

4.1 The Secretariat presented to the Meeting WP/17, containing the progress on the follow-up to ICAO Universal Safety Oversight Audit Programme (USOAP) corresponding to the period between April 2005 and January 2006.

Air Safety Support International

4.2 United Kingdom presented to the Meeting information on Air Safety Support International (ASSI), which is a wholly owned subsidiary of the United Kingdom Civil Aviation Authority, operating from its offices in the United Kingdom and Antigua. Its remit is to oversee aviation safety regulation in each United Kingdom Overseas Territory, to provide advice, assistance and training to the Territories and to carry out safety regulation where so designated by the Governor of that Territory. As a follow-up to the C/CAR DCA/3 Meeting, the company was formed in 2003 and is funded by the United Kingdom government. All the information on ASSI and Overseas Territories Aviation Requirements (OTARs) is provided in the **Appendix** to this part of the Report.

4.3 The Meeting thanked United Kingdom for the valuable information provided and expressed the importance of maintaining harmonization of the aeronautical regulations; this work should be carried out under a close coordination with RASOS, which currently provides the same assistance to the CAR States of the Region. Bearing in mind this objective, the Meeting agreed the following:

DRAFT

CONCLUSION 6/21

**HARMONIZATION OF THE AERONAUTICAL REGULATIONS
IN THE CENTRAL CARIBBEAN**

That, aimed at maintaining the harmonization of the aeronautical regulations required by the States and Territories, the Central Caribbean Civil Aviation Administrations promote adequate coordination and collaboration among its designated experts for the development and publication of aeronautical regulations.

Auditor Training Courses and Theoretical/Practical for Safety Oversight Coordinators

4.4 In preparation for the launching of safety oversight audits under the comprehensive system approach in 2005, the Secretariat informed on the auditors to train a sufficient number of auditors of the States that the NACC Regional Office in Mexico City held for USOAP coordinators 10 to 11 of March 2005, and another course in December 2005 named "ATM Safety Management System Auditors Seminar for the CAR/SAM Regions".

4.5 Likewise, the Secretariat informed that a Seminar on Safety Management Systems (SMS) to be held in Mexico City from 14 to 16 March 2006 aimed at assisting the States and Territories of the NAM, CAR and SAM Regions for the implementation of a Safety Oversight System, and on a course scheduled on ISO9001:2000 Course for Audit Leaders, which will be convened in the SAM Regional Office in Lima, Peru from 15 to 19 May 2006.

APPENDIX

AIR SAFETY SUPPORT INTERNATIONAL (ASSI)

OTAR Production

1. The OTAR working group was formed in September 2003, bringing together specialist staff from ASSI and the Territories' DCAs to produce the OTARs. The first batch covering Aerodromes, Airworthiness, Air Traffic Services, Personnel Licensing, and Occurrence Reporting was published in April 2004 and production has continued at a steady rate since then. The OTARs are divided into numbered Parts, according to subject, following the now widespread convention derived from the United States FAR's. They are written in plain language and have been designed to be practical, user friendly, working documents. The individual OTAR parts become effective when they are "Gazetted" i.e. formally notified as the means of compliance within a Territory. Additional supporting information and guidance on requirements compliance are published as Overseas Territory Aviation Circulars (OTACs).

Consultation

2. OTAR Parts, produced by the working group are subjected to a formal consultation process in batches which may cover one particular area or more often a range of activities. The consultation period lasts for up to twelve weeks during which the parts are available for inspection on the ASSI web site.

Published For Information

3. Once the Parts are completed, following any changes made as a result of the consultation, they are published for information. This means that although there is a possibility of further minor changes as the accompanying supporting material is developed, the Part is sufficiently stable for production as an essentially mature document. The Part retains this status while the OTAC and the regulator's relevant internal procedures are developed.

Training

4. Training of regulatory staff is vital to the successful implementation of the OTARs and precedes each phase of release for gazetting. The first of the formal training sessions covering the Phase 1 OTARs took place in June 2005, further training will be carried out as production of the OTARs progresses.

Release for Gazetting

5. Once enough supporting material for a Part is completed, the Part is released for gazetting as a usable requirement. The process of gazetting is an acceptance of the definitive version of the Part by the Territory and formal notification of the Part as a means of compliance within the Territory. The release is done in phases, the content of which will coincide with one or more batches. The DCA of the Territory will specify the date on which the particular elements of the OTARs become effective together with any changeover period during which old and new requirements run in parallel.

Maintenance

6. Once an OTAR Part has been released for gazetting, it passes into maintenance mode. This does not mean that the requirements are now set in stone, they are living requirements and need to be kept up to date to reflect international developments, changes in technology and the needs of industry in the Territories.

List of OTAR Parts

7. This is the complete list of OTAR Parts. Some are still being developed, but many are now published for information on the ASSI website www.airsafety.aero.

SIXTH CENTRAL CARIBBEAN WORKING GROUP MEETING (C/CAR WG/6)
SUMMARY OF DISCUSSIONS
APPENDIX TO AGENDA ITEM 4

4A-3

OVERSEAS TERRITORY AVIATION REQUIREMENTS (OTARS)

Part Number	Title	Published for Information	Released for Gazetting
001	Definitions, Abbreviations and Units of Measurement	June 2004	July 2005
013	Occurrence Reporting	April 2005	July 2005
021	Certification of Products	June 2004	July 2005
036	Aircraft Environmental Standards	April 2005	July 2005
039	Mandatory Continued Airworthiness Requirements	June 2004	July 2005
043	General Maintenance Requirements	June 2004	July 2005
047	Aircraft Registration and Marking	April 2005	July 2005
061	Pilot Licenses and Ratings	June 2004	April 2006
063	Flight Engineer Licenses and Ratings	June 2004	April 2006
065	Ai Traffic Service Personnel Licenses and Ratings	June 2004	July 2005
066	Aircraft Maintenance Personnel Licensing	June 2004	July 2005
067	Medical Standards and Recognition of Medical Examiners	June 2004	July 2005
077	Objects and Activities Affecting Airspace	April 2005	July 2005
091	General Operating and Flight Requirements	June 2004	April 2006
092	Carriage of Dangerous Goods	April 2005	April 2006
093	Aircraft Performance	March 2006	April 2006
101	Recreational Aviation	March 2006	April 2006
119	Air Operator Certification	June 2004	April 2006
121	Commercial Air Transport Operations – Large Aeroplanes	June 2004	April 2006
125	Private and Corporate Aviation	May 2006	Sept 2006
127	Aircraft Instruments and Equipment	March 2006	April 2006
133	Rotorcraft Underslung Load Operations	May 2006	Sept 2006
135	Commercial Air Transport Ops, Helicopters and Small Aeroplanes	June 2004	April 2006
137	Aerial Application Approval	May 2006	Sept 2006
139	Aerodrome Certification	April 2005	July 2005
140	Rescue and Fire Fighting Service Approval	April 2005	July 2005
145	Aircraft Maintenance Organisation Approval	June 2004	July 2005
171	Aeronautical Telecommunication Services Approval	April 2005	July 2005
172	Air Traffic Service Organisation Approval	April 2005	July 2005
173	Flight Checking Organisation Approval	April 2005	July 2005
176	Instrument Approach Procedures Approval	April 2005	July 2005

View the OTARs on the ASSI website, www.airsafety.aero, click on Legislation and Requirements

Agenda Item 5: Human Resources and Training

5.1 The Meeting recalled that in the Twelfth Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/12), held in Havana, Cuba, from 7 to 11 June 2004, the activation of its Human Resources and Training Subgroup in order to develop the necessary actions for the required human resources and training planning for the CNS/ATM systems, was strongly discussed.

5.2 Subsequently, the Fifth Meeting of the Central Caribbean Working Group (C/CAR WG/5), convened in Mexico City, Mexico, from 21 to 24 February 2005, adopted Decision 5/25 - *Human Resources and Training Planning Task Force*, as well as its Terms of Reference, Work Programme and composition.

5.3 Also, the Meeting noted that the Second Meeting of North American, Central America and Caribbean Directors of Civil Aviation (NACC/DCA/2), held in Tegucigalpa, Honduras, from 11 to 14 October 2005, strongly supporting the issue of Human Resources and Training Planning in accordance with agreements adopted by the C/CAR WG/5, approved to assign a Cuban representative as the Task Force Rapporteur. Moreover, through Conclusion 2/27 the Civil Aviation Administrations were requested to complete the Form in Appendix O to its report and to submit it to the ICAO NACC Regional Office.

5.4 Bearing in mind that the NACC/DCA/2 Meeting, nominated the C/CAR Human Resources and Training Planning Task Force Rapporteur, and that she was informed thereupon in November 2005, the Task Force has not been able to develop specific actions related with the adopted Terms of Reference and Work Programme. Therefore, this part of the Report presents a proposal of preliminary actions to be carried out for the successful development and compliance of the tasks presented in **Appendix A** to this part of the Report, in accordance with their Terms of Reference and Work Programme. Also, for the analysis and evaluation of the Group, **Appendices B** and **C** to this part of the Report are presented to contribute diagnosing the specialization strengths, subject of analysis by the CTACs in the Central Caribbean, as well as a summary of the status of implementation.

5.5 The Meeting, followed-up the identified factors for the development and planning of human resources, dealt with at the C/CAR WG/5 meeting, proposing a Work Strategy to be developed starting from the Action Timetable proposed in Working Paper WP/18. The mentioned strategy will contain the following actions:

1. Develop a diagnosis of the situation in the C/CAR area with regard to human resources qualifications, in order to determine the following:
 - A) Training Needs-in the CAR region States (Period 2005-2009) - Appendix A, to which the Task Force introduced modifications.
 - B) Status of the Specialized Manpower in the Central Caribbean - Appendix B - Table 2 - Experts by Type and Age Groups.

- C) Diagnosis of the existent CATCs in the area and their possibilities to accomplish the task. Appendix C – Survey of Training Methods for Training of Personnel in the C/CAR Area and Survey of CATCs/Classroom or Premises for Training of Personnel in the C/CAR Area, Tables 3 and 4.
 - D) Profile of the experts in the CATCs in the area to evaluate the possibility to use them for training in the C/CAR. **Appendix D** – Model 1 - Profile of the CATCs Instructors Training Needs.
- 2. From the Air Navigation Plans and the CAR/SAM Regional Plan for the Implementation of the CNS/ATM Systems, and considering the criteria on priority of training needs expressed by the States/Territories/International Organizations, determine the priority scales in the subject matter.
 - 3. Evaluate through a Cost/Benefit study, the training strategies within and outside the area, in order to take the appropriate decision in each case.

5.6 The Meeting activated an Ad hoc Group, composed by delegates from Cuba (Rapporteur), Dominican Republic, Jamaica, IFATCA, as well as other participants aimed at supporting the review of this Agenda Item. In the course of the Meeting, the members of the Ad hoc Group showed a strong interest in the issue, highlighting the importance of Planning and Training of Human Resources and the special attention required, emphasizing the need for States/Territories to complete and submit the previously mentioned Form with modifications included by the Group, which will provide a more accurate information with regard to the priority order to be provided to the needs, and formulated the following Draft Conclusion.

DRAFT

CONCLUSION 6/22

REQUEST OF INFORMATION ON HUMAN RESOURCES AND TRAINING

That, as part of the main elements for the CNS/ATM systems implementation, the C/CAR Civil Aviation Administrations:

- a) notify the ICAO NACC Office the name and email address of their respective Point of Contact;
- b) complete the forms contained in Appendices A, B, C and D to this part of the Report; and
- c) send the information detailed in items a) and b) above to the ICAO NACC Regional Office by **7 July 2006**.

5.7 Subsequently, the C/CAR Working Group will circulate through the ICAO NACC Regional Office, a proposal of the actions to be taken based on the results obtained during the development of the planned strategy.

5.8 Also, the Meeting agreed that the C/CAR Working Group Members should provide information directly to the Human Resources and Training Task Force. Therefore, the Meeting formulated the following Decision:

DECISION 6/23

**PROVISION OF INFORMATION TO THE HUMAN
RESOURCES AND TRAINING TASK FORCE BY THE C/CAR
WG MEMBERS**

That, with the purpose of carrying out tasks, the C/CAR Working Group Members directly provide information to the Human Resources and Training Task Force regarding the needs and policies of each aeronautical field/speciality.

APPENDIX A

TRAINING NEEDS-CAR REGION STATES (PERIOD 2005-2009)

State/Territory/International Organisation

(Please indicate in each column the estimated total number of personnel to be trained each year locally or abroad and by specialty)

FIELD	CATEGORY/SPECIALTY	LOCAL INSTRUCTION					EXTERNAL INSTRUCTION					Total HR required		Order of Priority		
		2005	2006	2007	2008	2009	2005	2006	2007	2008	2009	Local	Ext.	1	2	3
AIG	Officer - Accident Investigation and Prevention															
AIR	Inspector - Shop Specialist															
	Inspector - Fixed wing															
	Inspector - Helicopter															
	Specialist - Avionics															
	Inspector - Airworthiness certification															
	Specialist - RVSM															
AIS	Directorate/Supervisor AIS															
	AIS Officer															
	Aeronautical Cartography (MAP)															
	Specialist Data Base/Automation and Quality Assurance AIS															
AGA	Supervision/Certification/ Aerodrome Regulations															
	Aerodromes Inspector/Auditor															
	Officer – Airport Operations															
	Officer Airport Security															
	Trainer – Aerodrome Emergencies															
	Fire fighter - Rescue															
	Control – Natural resources															
	Maintenance - Pavements and drainage -Civil Engineer															
	Electric maintenance (lighting, markings, power generators) – Electric engineer															

FIELD	CATEGORY/SPECIALTY	LOCAL INSTRUCTION					EXTERNAL INSTRUCTION					Total HR required		Order of Priority		
		2005	2006	2007	2008	2009	2005	2006	2007	2008	2009	Local	Ext.	1	2	3
	Meteorological Technician Entry level															
OPS	Inspector – Flight checks - Large airplanes															
	Inspector – flight checks – General aviation															
	Inspector – flight checks - Helicopter															
	Specialist – Regulatory compliance															
	Inspector OPS Certification															
	Inspector – Cabin safety															
	Inspector- Dangerous goods															
	Inspector – Ramp safety															
PEL	Specialist - Licensing															
	Examiner/Inspector – Flight schools															
GENE RAL	Introduction to CNS/ATM Systems															
	CNS/ATM - Implementation systems global															
MAN-AGE-MENT	Management – Civil Aviation															
	Management – Aeronautical Operations															
	Management – AIS Services															
	Management – ATM Services															
PLNG	Human Resources Planning															
Q.A.	Specialist – Quality Assurance															
TRNG	Instructors training -TRAINAIR															

- NOTE:
- 1) The information required in the blank columns will be provided by the Administrations
 - 2) Useful information for the Administration's training programmes planning
 - 3) Information considered by the CATCs, GREPECAS and ICAO's for the programming of courses, seminars, etc.
 - 4) Order of priorities of the Training Needs

APPENDIX B

STATUS OF THE SPECIALIZED MANPOWER IN THE CENTRAL CARIBBEAN

TABLE 2. EXPERTS BY TYPE AND AGE GROUPS

State/Territory/International Organization:	
--	--

Field	Specialty	Quantity of experts	Age Groups								Post requirements		
			20-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	Tech	Univ	Spec
AIR	Inspector - Shop Specialist												
	Inspector - Fixed wing												
	Inspector - Helicopter												
	Specialist - Avionics												
	Inspector - Airworthiness certification												
	Specialist - RVSM												
AIS	Directorate/Supervisor AIS												
	AIS Officer												
	Aeronautical Cartography (MAP)												
	Specialist Data Base/Automation and Quality Assurance AIS												
ATM	Air Traffic Controller - APP												
	Air Traffic Controller -Area												
	Air Traffic Controller-Radar/Area												
	Air Traffic Controller - Radar/APP												
	Supervisor – Air Traffic Control												
	ATS Airspace Planner												

Field	Specialty	Quantity of experts	Age Groups								Post requirements		
			20-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	Tech	Univ	Spec
	Specialist – ATS Quality Assurance												
	Specialist CNS / ATM												
	Specialist – Search and Rescue SAR for RCC or RSC												
CNS	Specialist - Communications												
	Specialist - Navigation												
	Specialist –ADS and Radar Systems												
	Digital communication system specialization course												
MET	Meteorologist Senior level												
	Meteorologist Mid level												
	Meteorologist Entry level												
	Meteorological Technician Senior level												
	Meteorological Technician Mid level												
	Meteorological Technician Entry level												

Note:

1. In the column titled **Specialty**, different specialties recognized by the ICAO training system are listed.
2. In the column titled **Quantity of Experts**, the number of available experts in the system os detailed.
3. In the following columns experts are detailed by age groups.
4. In the following 3 columns the post requirements are listed according to the degree required by the CAA.

APPENDIX C

SUMMARY TABLE

SURVEY OF TRAINING METHODS FOR TRAINING OF PERSONNEL IN THE C/CAR AREA

State/Territory/International Organization/CATC: _____

COURSES GIVEN				METHOD/MODE					
TRAINING	RATING	REGRADING	REFRESHMENT	OFF-SITE	ON-SITE	ON/OFF SITE	CONFERENCE	SEMINAR	WORKSHOP

SUMMARY TABLE

SURVEY OF CATCs/CLASSROOMS OR PREMISES FOR TRAINING OF PERSONNEL IN THE C/CAR AREA

State/Territory/International Organization: _____

INSTITUTE/CATC NAME	REGION/STATE/ PROVINCE FOR LOCATION PURPOSES	NUMBER OF AVAILABLE PREMISES			FOR COMMUNICATIONS			
		CLASS- ROOMS	LABS.	PREMISES	E-MAIL	INTERNET	TEL.	FAX

APPENDIX D

MODEL 1. PROFILE OF THE CATCs INSTRUCTORS TRAINING NEEDS

State/CATC/International Organization_____

Complete Name: _____ Age: _____

Specialty: _____

Degree: _____

Educational level: _____

Courses/assignments: _____

Training needs: _____

Specialist training
Strategy: _____

Comments: _____

Note: This form should be completed by the specialist of any aviation field, both from the State, CATCs or International Organization.

Agenda Item 6: Review of the Terms of Reference and Work Programme

6.1 The Meeting reviewed the Terms of Reference and the Work Programme for the Central Caribbean Working Group, as approved by the Central Caribbean Directors of Civil Aviation, but no amendments were adopted.

6.2 Also, the Group agreed that since the C/CAR VHF/AMS Task Force completed the tasks assigned to it, and approved to disband the Task Force and thanking their members for the work performed.

6.3 The Meeting also reviewed the Terms of Reference and Work Programme of the AIS/MAP, ATM, MET, Human Resources and Training and SAR Task Forces. The **Appendix** to this part of the report shows the updated version of the Terms of Reference and Work Programme of the C/CAR Working Group and its Tasks Forces.

6.4 Since Mr. Jacques Boursiquot (Haiti) has accomplished two periods as the Chairman of the Working Group, the Meeting considered appropriate to nominate a new Chairman, hence Mr. Fidel Ara (Cuba) unanimously elected.

6.5 The delegates of the Meeting expressed gratitude for valuable work performed by Mr. Boursiquot during his period as the Chairman, and at the same time welcomed Mr. Ara confirming their support and wishing him success in his new position.

6.6 Based on the above, the Meeting formulated the following Draft Conclusion:

**DECISION 6/24 C/CAR WG TASK FORCES TERMS OF REFERENCE AND
WORK PROGRAMME**

The C/CAR WG adopts the revised Terms of Reference and Work Programme of its Task Forces as presented in the Appendix to this part of the report.

APPENDIX

TERMS OF REFERENCE AND WORK PROGRAMME OF THE CENTRAL CARIBBEAN WORKING GROUP (C/CAR WG)

1 Background

The Central Caribbean Working Group was established by Conclusion 4/10 of the Fourth Meeting of Directors of Civil Aviation of the Central Caribbean, held in the Cayman Islands from 17 to 20 May 2000, to deal with the development of air navigation systems/service issues in the Central Caribbean. The aforementioned Meeting also agreed that ICAO should assist in the establishment of the Working Group and provide Secretariat services. A draft of the Terms of Reference and Work Programme was circulated to States/Territories/International Organizations of the Central Caribbean inviting them to nominate their respective member to the Working Group. The Meeting also felt it necessary to transfer the work of the C/CAR ATS Task Force to the Central Caribbean Working Group, incorporating it into its tasks.

The First Central Caribbean Working Group Meeting (C/CAR WG/1) was held at the ICAO NACC Regional Office in Mexico City, from 19 to 23 February 2001. The Second Central Caribbean Working Group Meeting (C/CAR WG/2) was held in Pétiön Ville, Haiti, from 18 to 22 February 2002. The Third Central Caribbean Working Group Meeting (C/CAR WG/3) was held in Willemstad, Curaçao, Netherlands Antilles from 24 to 28 March 2003. The Fourth Central Caribbean Working Group Meeting (C/CAR WG/4) was held in Santo Domingo, Dominican Republic, from 9 to 13 February 2004. The Fifth Central Caribbean Working Group Meeting (C/CAR WG/5) was held at the ICAO NACC Regional Office in Mexico City, from 21 to 24 February 2005. The Sixth Central Caribbean Working Group Meeting (C/CAR WG/6) was held in Havana, Cuba, from 20 to 24 February 2006.

Conclusion 4/10 Establishment of a Central Caribbean Work Group (C/CAR/WG)

That,

- a) an informal work group dealing with the air navigation areas be established for the Central Caribbean;*
- b) the ICAO Regional Office prepare the Terms of Reference and Work Programme for the work group and provide Secretariat services;*
- c) the ICAO Regional Office, by 30 July 2000, should circulate the Terms of Reference and Work Programme for the work group to all States/Territories in the Central Caribbean as well as to relevant International Organizations for comments and invite them for the nomination of members of the working group;*

- d) *the work of the C/CAR ATS Task Force be incorporated into the tasks of the work group and that the ATS Task Force be disbanded, with the appropriate note of gratitude being sent to its members by the ICAO Regional Office on behalf of the States/Territories of the Central Caribbean; and*
- e) *a meeting of the work group be scheduled prior to the Fifth Meeting of the C/CAR Directors of Civil Aviation.*

2 Terms of Reference

- a) The Central Caribbean Working Group (C/CAR WG) will examine on a continual basis the sub-regional problems in all fields of Air Navigation (AIS/AGA/ATM/CNS/MET/SAR) for States and Territories within the geographic limits of the Curaçao, Havana, Kingston, Miami Oceanic, Houston Oceanic, Nassau, Port-au-Prince, and Santo Domingo FIRs;
- b) The C/CAR WG will promote, coordinate and follow-up the implementation of the AIS/AGA/ATM/CNS/MET/SAR requirements established in the CAR/SAM Air Navigation Plan of the States/Territories in its area of responsibility, as well as the compliance of GREPECAS conclusions taking into account the ICAO SARPs; and
- c) The C/CAR WG will identify and propose actions to correct the air navigation systems/services deficiencies affecting international civil aviation in its area of responsibility.

3. Objectives

The objectives of the C/CAR WG in each air navigation field are as follows:

Aerodromes (AGA)

To study AGA issues and recommend actions to be implemented associated with the planning and implementation of regional developments related to airport operations, physical characteristics, facilities, services and safeguarding in relation to airport safety, and efficiency, as well as environmental protection at and around airports.

Communications, Navigation and Surveillance (CNS)

To study CNS issues associated with solutions to deficiencies, the planning and implementation of regional developments related to communications, navigation and surveillance systems, proposing action plans and contributing to the coordination and follow-up of their implementation.

Air Traffic Management (ATM)/Search and Rescue (SAR)

To study ATM and SAR issues and recommend actions, to contribute to the coordination and follow-up associated with the planning and implementation of regional developments related to airspace organization and management (AOM), air traffic services (ATS), air traffic flow management (ATFM), search and rescue (SAR) and the ATS quality assurance programmes.

Meteorology (MET)

To study MET issues and recommend actions to be implemented, contributing to the coordination and follow-up associated with the planning and implementation of regional developments related to observation, forecasting and exchange of operational meteorology (OPMET) information, functioning and utilization of WAFS.

Aeronautical Information Services (AIS)

To study planning and implementation of regional developments related to automation of aeronautical information services, aeronautical databases and the Integrated Aeronautical Information Package, as well as the standardization of aeronautical mapping and its evolution toward providing electronic formats information services and quality assurance programmes, proposing action plans and contributing to the coordination and follow-up of these issues.

4 Work Programme

No.	Field	Task	Priority	Completion	Responsible
1	GEN 1	Review, promote, contribute to the coordination and propose relevant actions for the implementation of AIS/AGA/ATM/ CNS/MET/SAR requirements established in the CAR/SAM ANP.	A	Permanent	C/CAR WG
2	GEN 2	Review, propose actions and follow-up the implementation of the recommendations/conclusions of the CAR/SAM/3 RAN and the conclusions of GREPECAS related to all air navigations fields.	A	Permanent	C/CAR WG
3	GEN 3	Review the database of deficiencies in the AIS/AGA/ATM/CNS/MET/SAR fields for each State/Territory and propose corrective actions.	A	Permanent	C/CAR WG
4	GEN 4	Foster the development of national programmes for human resources planning in all the aeronautical fields.	A	Permanent	C/CAR WG
5	GEN 5	Examine and propose solutions for aeronautical staff training in the different aeronautical fields.	A	Permanent	C/CAR WG

SIXTH CENTRAL CARIBBEAN WORKING GROUP MEETING (C/CAR WG/6)

SUMMARY OF DISCUSSIONS

APPENDIX TO AGENDA ITEM 6

6A-4

No.	Field	Task	Priority	Completion	Responsible
6	GEN 6	Develop and keep up-to-date a Regional Safety Oversight <u>Management</u> Programme for the Central Caribbean	A	Permanent	C/CAR WG
7	AGA 1	Identify, evaluate and recommend actions to improve safety oversight and security in international Central Caribbean airports.	A	C/CAR WG/6	C/CAR WG
8	AIS 1	Recommend actions to solve the discrepancies of information published in the AIPs.	A	NACC/DCA/2	AIS/MAP TF
9	AIS 2	Contribute to the coordination and follow-up of the total implementation of WGS-84 in the States/Territories in the Central Caribbean and adjacent regions.	A	NACC/DCA/2	AIS/MAP TF
10	AIS 3	Carry out the coordination, assistance and follow-up of the implementation of a standard AIS/MAP Quality Assurance System, in the Central Caribbean States/Territories.	A	C/CAR WG/6	AIS/MAP/TF
11	AIS 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 Systems.	A	C/CAR WG/6	AIS/MAP TF
12	AIS 5	Recommend the necessary actions to develop and assist States/Territories with implementing the AIS Automation Plan in the Central Caribbean and, developing the relevant databases.	A	Permanent	AIS/MAP TF
13	AIS 6	Review, propose actions and follow up the implementation of the AIS/MAP requirements established in the CAR/SAM Air Navigation Plan and of GREPECAS conclusions.	A	Permanent	AIS/MAP TF
14	AIS 7	Study the elements of human factors applied to the AIS/MAP, in accordance with AIS/MAP/SG/9 Meeting results.	A	C/CAR WG/6	AIS/MAP TF
15	ATM 1	Develop an ATS Route implementation programme in coordination with the adjacent FIRs and recommend solutions to the congestion on some ATS routes in the Central Caribbean.	A	Permanent	ATM TF
16	ATM 2	Study ATS incidents and propose risk prevention solutions based on the ATS quality assurance programmes in the Central Caribbean.	A	Permanent	ATM TF
17	ATM 3	Develop an action plan for ATM automation systems considering flexibility, interoperability and harmonization between systems of the Central Caribbean.	B	C/CAR WG/67	ATM TF
18	ATM 4	Review Letters of Agreement of ACCs in the Central Caribbean and adjacent FIRs, contribute to the coordination and recommend corrective actions if necessary.	B	Permanent	ATM TF
19	ATM 5	Develop and provide improvements for a Regional ATM safety management programme for the Central Caribbean	A	C/CAR WG/67	ATM TF

No.	Field	Task	Priority	Completion	Responsible
20	ATM 6	Develop a Regional ATM Contingency Plan for the Central Caribbean	A	<u>NACG/DCA/2 C/CAR WG/7</u>	ATM TF
21	ATM 7	Develop an action plan for the implementation of RNP in the Central Caribbean	B	C/CAR WG/6 <u>7</u>	ATM TF
22	CNS 1	Review the VHF AMS (R) communications coverage in the Central Caribbean airspace and recommend actions for its completion.	<u>BA</u>	<u>C/CAR WG/6 Permanent</u>	<u>VHF/AMS Coverage Task Force C/CAR WG</u>
23	CNS 2	Assist and contribute to the coordination among the C/CAR States/Territories for the implementation of radar data sharing in the Central Caribbean.	B	C/CAR WG/ <u>76</u>	Radar Data Sharing Task Force
24	CNS 3	Conduct a study and recommend a plan for GNSS implementation, including its augmentation system.	B	To be determined	<u>To be determined C/CAR WG</u>
25	CNS 4	Assist and contribute to the coordination and follow-up of the implementation of VHF air-ground data links (VDL).	B	To be determined	<u>To be determined C/CAR WG</u>
26	CNS 5	Propose a C/CAR subregional action plan for the implementation of ATN and its applications, contributing to its coordination and follow-up.	B	<u>To be determined C/CAR WG/7</u>	C/CAR WG
27	CNS/ATM 1	Identify and study ATM and CNS scenarios in the Central Caribbean with a view to improving and implementing these systems/services.	A	<u>C/CAR WG/6 Permanent</u>	C/CAR WG
28	CNS/ATM 2	Contribute to maintaining up-to-date the National CNS/ATM Implementation Plans for the Central Caribbean States/Territories.	A	Permanent	C/CAR WG
29	CNS/ATM 3	Develop a C/CAR CNS/ATM Implementation Subregional Plan	B	C/CAR WG/ <u>67</u>	C/CAR WG
30	SAR 1	<u>Develop an Action Plan to introduce improvements to the National SAR Plans and develop a C/CAR SAR Plan. Perform a continuous follow-up of the information exchange and propose actions in order to attain the efficiency of the SAR service in the Central Caribbean, in accordance with the requirements set forth in the CAR/SAM ANP FASID (Doc 8733).</u>	A	<u>Permanent C/CAR WG/6</u>	SAR TF

5 Priority

- A** Tasks of high priority on which work should be completed as soon as possible.
- B** Tasks of medium priority on which work should be undertaken as soon as possible, but without detriment to Priority **A** tasks.
- C** Tasks of low priority on which work should be undertaken as time and resources permit, but without detriment to Priority **A** and **B** tasks.

6 Members

Aruba, Bahamas, Cayman Islands, Cuba, Dominican Republic, Haiti, Jamaica, Netherlands Antilles, Turks and Caicos Islands, United Kingdom, United States, ACI, IATA, IFALPA and IFATCA.

Note: Colombia, Mexico, Panama, Venezuela and COCESNA will be invited to attend C/CAR WG Meetings to deal with co-ordination issues with adjacent FIRs of the Central Caribbean.

7 Chairman and Vice-Chairman of the C/CAR Working Group

The chairperson will serve a term of 3 years to provide continuity and a communications link between the ICAO NACC Regional Office and members of the C/CAR WG between meetings. A participant from the host State/Territory will be elected as vice-chairperson of the corresponding meeting.

The chairperson of the C/CAR Working Group will present the results of each meeting of the Group to the corresponding meeting of Directors of Civil Aviation of the Central Caribbean.

6A-8

8 Task Forces**C/CAR ATM TASK FORCE****1. Terms of Reference**

The C/CAR ATM Task Force is responsible to the C/CAR/WG for the review, assessment and analysis of all ATM related matters specifically delegated by the Working Group and to recommend/propose action plans to correct deficiencies and implement solutions.

2. Work Programme

No	Task	Priority	Completion
1	Review Letters of Agreement between ACCs in the Central Caribbean and update action if required.	B	Permanent
2	Review ATS Route issues in coordination with the FIRs of the adjacent States and recommend changes/solutions for an ATS routes implementation programme in the Central Caribbean.	A	Permanent
3	Study ATS Incidents and propose risk prevention solutions based on the ATS Quality Assurance Programmes in the Central Caribbean.	A	Permanent
4	Identify ATM matters relating to ATM/CNS implementation with a view to improving and implementing these systems/services.	A	Permanent
5	Develop an action plan for ATM automation considering the seamlessness, flexibility, interoperability and harmonization between systems of the CAR Region and adjacent Regions.	B	C/CAR WG/7
6	Coordinate with the C/CAR Radar Data Sharing Task Force on the use of radar data for ATS operational purposes.	B	C/CAR WG/7
7	Develop a Regional ATM Contingency Plan for the Central Caribbean.	B	C/CAR WG/7
8	Develop and provide improvements for an ATM Safety Management programme for the Central Caribbean.	A	C/CAR WG/7
9	Develop an action plan for the implementation of RNP in the Central Caribbean.	A	C/CAR WG/7
10	Develop an action plan for the implementation of an ATFM system in the Central Caribbean.	A	C/CAR WG/8

3. Priority

- A** Tasks of high priority on which work should be completed as soon as possible.
- B** Tasks of medium priority on which work should be undertaken as soon as possible, but without detriment to Priority **A** tasks.
- C** Tasks of low priority on which work should be undertaken as time and resources permit, but without detriment to Priority **A** and **B** tasks.

4. Composition

Cayman Islands, Fidel Ara (Cuba), Marc Paulemon (Haiti), Randolph Jones (Jamaica)*, Netherlands Antilles, United States and IFATCA.

* Rapporteur

C/CAR RADAR DATA SHARING TASK FORCE

1. Terms of Reference

Study and assist the C/CAR Working Group on the feasibility of implementing the radar data exchange in the Central Caribbean area based on the Surveillance Plan contained in Table CNS 4A of the FASID and the relevant GREPECAS Conclusions and guidelines with a view to proposing a Subregional C/CAR Radar Data Exchange Plan and to advising actions to arrange bilateral and multilateral agreements for the implementation of radar data exchange.

2. Work Programme

No.	Task	Priority	Completion date
1	Based on the updated information of the Surveillance Plan – Table CNS 4A corresponding to the Central Caribbean and neighbouring areas, to analyze the information of the radar facilities of the States/Territories/Organizations of the Central Caribbean and to compile their respective radar coverage diagrams at flight levels 12.000 for terminal area and 25.000 ft for en-route functions.		
2	Propose the primary and secondary radar data sources, as well as the ATS units that might benefit from the exchange of those radar data sources.		
3	Develop an Action Plan for the implementation of radar data in the C/CAR area.		
4	Contribute to keep data up-to-date with any new implementation or change that may be produced regarding the closing of any radar facility service (during the working period of the Group).		
5	Conduct a cost/benefit analysis for the implementation of radar data exchange projects.		
6	Prepare a radar data exchange plan for the Subregion that allows to share resources for the use of a surveillance radar service in an efficient and safe manner.		
7	Develop and recommend a prototype Letter of Agreement for bilateral and/or multilateral agreements		
8	Assess the available information on traffic density in the FIRs and other airspace comprised within the Central Caribbean in order to recommend the use of radar as well as radar data exchange.		
9	Assist and contribute to the coordination among the States and Territories of the Central Caribbean for the implementation of radar data exchange.		December 2005
10	Distribute the results of the Work Programme to the members of the Task Force of the Working Group for their consideration.		

3. Priority

- A** Tasks of high priority on which work should be completed as soon as possible.
- B** Tasks of medium priority on which work should be undertaken as soon as possible, but without detriment to Priority **A** tasks.
- C** Tasks of low priority on which work should be undertaken as time and resources permit, but without detriment to Priority **A** and **B** tasks.

4. Composition

Silvio Michelena (Cuba), Jamaica, Vilmo Pieter (Netherlands Antilles)*, United States and IFATCA.

* Rapporteur:

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	C/CAR WG/7
2	Contribute to the coordination and follow-up of the total implementation of WGS-84 in the States/Territories in the Central Caribbean.	A	C/CAR WG/7
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/8
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/7

3 Priority:

- A** Tasks of high priority on which work should be completed as soon as possible.
- B** Tasks of medium priority on which work should be undertaken as soon as possible, but without detriment to Priority **A** tasks.
- C** Tasks of low priority on which work should be undertaken as time and resources permit, but without detriment to Priority **A** and **B** tasks.

4 Composition:

Cayman Islands, Noemí Carta (Cuba)*, Dominican Republic (Andrés Sención), Jamaica, and George Sempeles and Brett Brunk (United States).

* Rapporteur.

C/CAR MET TASK FORCE**1. Terms of Reference**

- a) Assess the current status of the MET systems and services in the States/Territories of the Central Caribbean;
- b) Promote, coordinate and follow-up the implementation of the MET requirements established in the CAR/SAM Air Navigation Plan for the States/Territories in the C/CAR WG area of responsibility, as well as the compliance with GREPECAS conclusions considering the ICAO SARPs; and
- c) Identify and propose actions to correct the international civil aviation MET services deficiencies in the C/CAR WG area of responsibility.

2 Work Programme

No.	Task	Priority	Completion
1	Follow-up on a regular basis OPMET information exchange and propose actions in order to achieve a high degree of reliability and efficiency in OPMET information exchange, in accordance with the requirements of the FASID Tables MET2A and MET2B (CAR/SAM ANP, Doc 8733).	A	C/CAR WG/6
2	Develop a C/CAR MET Contacts Database	A	C/CAR WG/6

3 Priority

- A** Tasks of high priority on which work should be completed as soon as possible.
- B** Tasks of medium priority on which work should be undertaken as soon as possible, but without detriment to Priority **A** tasks.
- C** Tasks of low priority on which work should be undertaken as time and resources permit, but without detriment to Priority **A** and **B** tasks.

4 Composition

Fred Sambula (Cayman Islands), Guillermo Armengol (Cuba)*, Alejandro Bartolomé (Dominican Republic), and Steven Albersheim (United States).

* Rapporteur.

C/CAR SAR TASK FORCE

1. Terms of Reference

- a) Evaluate and promote improvements to the SAR plans and services in States/Territories of the Central Caribbean considering the conclusions of GREPECAS and SARPs of ICAO;
- b) Promote the periodical carry out of SAR activities and simulations in order to exchange information between States/Territories of the Central Caribbean and with States of other Regions;
- c) Promote, coordinate and follow up with States/Territories of the Central Caribbean the implementation of SAR requirements established in the CAR/SAM Air Navigation Plan (Doc. 8733); and,
- d) Identify and propose corrective actions to solve deficiencies in the SAR services in the Central Caribbean.

2. Work Programme

No	Task	Priority	End
1	Identify and propose solutions on training needs for SAR personnel in the Central Caribbean.	A	C/CAR WG/7
2	Perform a continuous follow-up of the information exchange and propose actions in order to attain the efficiency of the SAR service in the Central Caribbean, in accordance with the requirements set forth in the CAR/SAM ANP FASID (Doc 8733).	A	Permanent
3	Carry out a SAR simulation programme in the States/Territories of the Central Caribbean.	A	C/CAR WG/7
4	Develop an action plan to keep close communication with other SAR Task Forces of the CAR Region and adjacent Regions in order to coordinate activities and improvements for the SAR service that are directly related with the Central Caribbean.	B	C/CAR WG/7
5	Develop an action plan to establish SAR agreements in the Central Caribbean in coordination with other States of CAR Region.	A	C/CAR WG/7
6	To propose actions and follow up the implementation of ELT 406 MHz in the Central Caribbean in accordance with ICAO guidelines.	B	C/CAR WG/8

3. Priority

- A** High priority tasks on which work should be speeded up.
- B** Medium priority tasks, on which work should commence as soon as possible but without detriment to priority **A** tasks.
- C** Tasks of lesser priority on which work should commence as time and resources allow but without detriment to Priority **A** and **B** tasks.

4. Composition

Pedro Ortega (Cuba), Ramón Pirón (Dominican Republic)*, Marc Paulemon (Haiti) and Dave Edwards (United States).

* Rapporteur.

C/CAR HUMAN RESOURCES AND TRAINING PLANNING TASK FORCE

1 Terms of Reference:

- a) Develop a Plan for the development of human resources to serve as guidance for the States/Territories of the Central Caribbean to stress the need for training personnel on human resources planning within the aeronautical activity.
- b) Establish guidelines to determine the need for qualified human resources technical-professional training need, for the efficient operation of aeronautical facilities.
- c) Identifying the deficiencies affecting air operations safety imputable to the development of human resources and proposing corrective actions.
- d) Analyzing the capacity of the CATCs of the subregion (and if possible, of the CAR Region) to fulfill the demand of human resources training of the different aeronautical services.

2 Work Programme

No	Task	Priority	End
1	Develop guidelines serving to identify the current personnel needs and planning the required human resource at the different aeronautical services.	A	Feb. 2006
2	Develop guidelines serving to identify the current training needs and plan the required training for the personnel of the different aeronautical services.	A	Feb. 2006
3	Determine the types of available training in the C/CAR and if possible in the CAR Region	A	Feb. 2007
4	Analyze and recommend the capacity of the existing aeronautical training at a subregional level and if possible at a regional level.	A	Feb. 2007
5	Identify and recommend the necessary measures for personnel training with regard to human resources planning within the Administrations of the del C/CAR	A	Feb. 2007
6	Gather and assess the existing guidance material concerning human factors and their development.	A	Feb. 2007
7	Developing a planning process to rectify the deficiencies generated due to lack of human resources or training.	A	Feb. 2007
8	Develop and formulate the Plan for the development of HR in the C/CAR area.	A	Feb. 2007

3 Priority:

- A** Tasks of high priority on which work should be completed as soon as possible.
- B** Tasks of medium priority on which work should be undertaken as soon as possible, but without detriment to Priority **A** tasks.
- C** Tasks of low priority on which work should be undertaken as time and resources permit, but without detriment to Priority **A** and **B** tasks.

4 Composition

Vivian Travieso (Cuba)*, José Gil Morales (Dominican Republic), Samuel Wright (Jamaica) and IFATCA.

* Rapporteur.

C/CAR ATN TASK FORCE

1 Terms of Reference:

- a) study the needs of ATN in the Central Caribbean.

2 Work Programme

No	Task	Priority	End
1	Present the results on the preliminary studies of ATN architecture.	A	C/CAR/WG/7

3 Priority:

- A** Tasks of high priority on which work should be completed as soon as possible.
B Tasks of medium priority on which work should be undertaken as soon as possible, but without detriment to Priority **A** tasks.
C Tasks of low priority on which work should be undertaken as time and resources permit, but without detriment to Priority **A** and **B** tasks.

4 Composition

Cayman Islands, Cuba, Haiti, Jamaica and United States.

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* Rapporteur.

Agenda Item 7: Other business

7.1 Modification of the limits of the Miami Oceanic FIR and Houston Oceanic FIR

7.1.1 United States informed that the boundary between Houston Oceanic FIR and Miami Oceanic FIR will be changed as depicted in **Appendix A** to this part of the report as a result of the National Airspace Redesign efforts. Changes will be coordinated with ICAO NACC Office and reflected at a future AIRAC charting date. The changes will be coordinated between United States and the ICAO NACC Regional Office and will be reflected shortly in a proposal for amendment to Doc 7030.

7.2 Support to the Tentative Schedule - 2006 ICAO NACC Office Meetings, Seminars, Courses and Workshops

7.2.1 The Secretariat presented the Tentative Schedule - 2006 ICAO NACC Office Meetings, Seminars, described in **Appendix B** to this part of the Report.

7.2.2 The Meeting considered that, given the importance to the issues to be dealt with, the Central Caribbean States and Territories should foster the participation of their air navigation experts, aimed at effectively complying with the tasks assigned by the Directors of Civil Aviation, and formulated to the following Draft Conclusion:

DRAFT

CONCLUSION 6/26

PARTICIPATION IN THE ICAO MEETINGS, SEMINARS AND OTHER EVENTS OF EXPERTS OF DIFFERENT AIR NAVIGATION FIELDS

That, the Central Caribbean States and Territories support the participation of their experts assigned to the different air navigation fields in the meetings, seminars and other events convened by the ICAO NACC Office for 2006, described in Appendix B to this part of the report.

7.3 Next Meeting site of the C/CAR Working Group

7.3.1 The Meeting recalled that, in accordance with the Rotational Programme of future meeting sites the Central Caribbean Working Group agreed upon during its First Meeting, the delegate of Jamaica expressed his willingness to host the next C/CAR Working Group Meeting, and informed that his State will organize the next meeting according to the agreements reached.

7.4 Retirement of the ICAO NACC Office Regional Director

7.4.1 The Meeting recalled that Mr. Raymond Ybarra, ICAO NACC Office Regional Director, who has performed a key role in the activation and follow-up of the work of the C/CAR WG, will shortly be enjoying a well-deserved retirement after a long and fruitful work life in ICAO. For that reason, the Meeting, unanimously, requested the Secretary to submit on behalf of the C/CAR WG its appreciation for the support received and its best wishes in his new life.

APPENDIX A

**BOUNDARIES BETWEEN HOUSTON OCEANIC FIR AND MIAMI OCEANIC FIR THAT
WILL CHANGE**

Beginning at the current Houston Oceanic CTA/FIR boundary at:

	24-00-00N	086-00-00W to
#	24-00-00N	084-59-59W (common ZMA CTA/FIR) to
#	25-02-01N	084-59-59W (common ZMA CTA/FIR) to
#	26-12-00N	085-05-30W (common ZMA CTA/FIR) to
#	26-36-10N	085-24-50W (common ZMA CTA/FIR) to
#	27-00-00N	086-00-00W (common ZMA CTA/FIR and ZJX ARTCC) to
#	27-14-29N	086-49-02W (common ZJX ARTCC) to
	27-30-00N	087-41-00W (common ZJX ARTCC) thence along the current boundary

Beginning at the current Miami Oceanic CTA/FIR boundary at:

	24-00-00N	083-10-00W (common ZMA ARTCC) to
#	24-00-00N	084-59-59W (common ZHU CTA/FIR) to
#	25-02-01N	084-59-59W (common ZHU CTA/FIR) to
#	26-12-00N	085-05-30W (common ZHU CTA/FIR) to
#	26-36-10N	085-24-50W (common ZHU CTA/FIR) to
#	27-00-00N	086-00-00W (common ZHU CTA/FIR and ZJX ARTCC) to
#	27-15-14N	085-37-20W (common ZJX ARTCC) to
#	27-30-00N	085-15-00W (common ZJX ARTCC) to
	27-30-00N	084-30-00W (common ZMA ARTCC) to
	24-38-38N	083-14-26W (common ZMA ARTCC) to the point of beginning

APPENDIX B

TENTATIVE SCHEDULE – 2006 ICAO NACC OFFICE – MEETINGS, SEMINARS, COURSES AND WORKSHOPS

1ST. QUARTER

MEETING/SEMINAR/COURSE/WORKSHOP	DATES	VENUE	PARTICIPANTS
North America Aviation Trilateral Safety/Security Meeting	23-27 January	Ixtapa, Mexico	NAM/CAR/SAM
COCESNA Meeting	24 February	Tegucigalpa, Honduras	Central America
C/CAR/WG/6 Meeting	20-24 February	Havana, Cuba	C/CAR
RASOS/12 Meeting	February	Caribbean	Members
ACG/6 Meeting	2-3 March	Lima, Peru	Members
ICAO/ASPA/SMS Seminar	14-16 March	Mexico City, Mexico	NAM/CAR/SAM
PAAST/10 Meeting	17 March	Mexico City, Mexico	Members
MEVAII/REDDIG Meeting	20-22 March	Lima, Peru	NAM/CAR/SAM
NAM/CAR ATFM Seminar	27-31 March	Tegucigalpa, Honduras	NAM/CAR
MEVA TMG/16 Meeting	March	Santo Domingo, Dominican Republic	Members

2ND QUARTER

MEETING/SEMINAR/COURSE/WORKSHOP	DATES	VENUE	PARTICIPANTS
AVSEC Airport Security Programme Workshop	3-7 April	Trinidad and Tobago	NAM/CAR/SAM
ICAO/PAIGH Meeting	18-21 April	Cartagena, Colombia	CAR/SAM
NAM/CAR Civil/Military Coordination Seminar	17-18 April	Santo Domingo, Dominican Republic	NAM/CAR
Regional NAM/CAR ATM Meeting	19-21 April	Santo Domingo, Dominican Republic	NAM/CAR
Central America AVSEC Experts	April	TBD	Central America
LACAC AVSEC Experts Meeting	8-10 May	Buenos Aires, Argentina	NAM/CAR/SAM
AVSEC COMM/5 Meeting	11-13 May	Buenos Aires, Argentina	NAM/CAR/SAM
COCESNA Meeting	26 May	Central America	Central America
C/CAR/DCA/8 Meeting	May	Curacao	C/CAR
E/CAR/WG/30 Meeting	5-9 June	St. Lucia	E/CAR
AP/ATM/12 Meeting	26-30 June	Lima, Peru	CAR/SAM

3RD QUARTER

MEETING/SEMINAR/COURSE/WORKSHOP	DATES	VENUE	PARTICIPANTS
Regional NAM/CAR/SAM SAR Workshop/Meeting	17-21 July	Merida, Mexico	NAM/CAR/SAM
ATM/CNS/SG/5 Meeting	14-18 August	Rio de Janeiro, Brazil	CAR/SAM
COCESNA Meeting	25 August	Central America	Central America
CA/ANE/5 Meeting	28-31 August	Tegucigalpa, Honduras	Central America
AGA/AOP/SG/5 Meeting	August	Montevideo, Uruguay	CAR/SAM
ICAO Annex4/15 AIM Seminar	25-29 September	Colombia	CAR/SAM

4TH QUARTER

MEETING/SEMINAR/COURSE/WORKSHOP	DATES	VENUE	PARTICIPANTS
ICAO AVSEC Human Factors Seminar	16-20 October	CAR Region	NAM/CAR/SAM
Performance Based Navigation Seminar	23-27 October	Santo Domingo, Dominican Republic	CAR/SAM
CAP/DCA/92 Meeting	October	ICAO NACC Office	Central America and Panama
RASOS/13 Meeting	October	Caribbean	Members
ASB/7/GREPECAS/14 Meetings	12-17 November	Costa Rica	CAR/SAM
AIS ANP Deficiencies Seminar	20-24 November	Mexico City, Mexico	CAR/SAM
COCESNA Meeting	November	Central America	Central America
E/CAR/DCA/20 Meeting	December	United States	E/CAR
ICAO ATN Seminar	Open	Mexico City, Mexico	CAR/SAM

12/01/06