



FINAL VERSION

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

**THIRD CENTRAL CARIBBEAN
WORKING GROUP MEETING**

C/CAR WG/3

SUMMARY OF DISCUSSIONS

CURAÇAO, NETHERLANDS ANTILLES, 24 TO 28 MARCH 2003

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HISTORICAL

ii.1 Place and Date of the Meeting

The Third Meeting of the Central Caribbean Working Group (C/CAR WG/3) was held at the Kurá Hulanda Hotel in Willemstad, Curaçao, Netherlands Antilles, from 24 to 28 March 2003. Its deliberations began on 24 March and, the review of all Agenda items having been dealt with, the Meeting ended its activities on 28 March 2003.

ii.2 Opening Ceremony

On behalf of the North American, Central American and Caribbean Office of ICAO, Mr. Aldo Martínez thanked the Government of Netherlands Antilles for hosting the Meeting, explained the scope of the Meeting's Agenda and pointed out the need of continuing the efforts towards the development of air navigation systems in the Central Caribbean.

Dr. S. J. Francisco, Director of Civil Aviation of Netherlands Antilles welcomed the participants to the Meeting on behalf of his Government, highlighting the importance that this event had for the Netherlands Antilles and informed about the plans of his Government concerning civil aviation matters.

The honourable Mr. Herbert Domacasse, Minister of Transport and Communications, also welcomed the participants, expressed important considerations and opened the Meeting. His speech appears in page ii-6.

ii.3 Organization of the Meeting

The Meeting was chaired by Mr. Jacques Boursiquot, Haiti, Chairman of the Central Caribbean Working Group and Mr. Vilmo Pieter, Netherlands Antilles, was elected Vice-Chairman for the duration of this Meeting. Mr. Aldo Martínez, Regional Officer, Communications, Navigation and Surveillance acted as Secretary with the assistance of Mr. Michiel Vreedenburgh, Regional Officer Aerodromes and Ground Aids, both from the ICAO NACC Regional Office.

ii.4 Working Languages

The working languages of the Meeting were Spanish and English. The documentation and Summary of Conclusions and Decisions of the Meeting were available to participants in both languages.

ii.5 Agenda

The Meeting adopted the following agenda:

Agenda Item 1: General matters

Agenda Item 2: AGA Developments

Agenda Item 3: AIS Developments

Agenda Item 4: ATM Developments

Agenda Item 5: CNS Developments

Agenda Item 6: MET Developments

Agenda Item 7: Review of the Terms of Reference and Work Programme of the Central Caribbean Working Group

Agenda Item 8: Other business

ii.6 Schedule and Work Mode

The Meeting agreed to hold its sessions from 9:00 to 15:30 hours, with adequate breaks. The meeting also agreed to work as a whole during the first, fourth and fifth days, establishing four Ad hoc Groups: Deficiencies, AIS, ATM and CNS dealing with agenda items 1, 3, 4 and 5. These Groups worked during the second and third days.

ii.7 Attendance

The Meeting was attended by 6 CAR Region States, and 2 International Organizations, making a total of 19 delegates as indicated in the list of participants on page iii-1 to iii-5. The Meeting regretted the absence of the following invited States/Territories/International Organizations: Aruba, Bahamas, Colombia, Dominican Republic, Mexico, Panama, Turks and Caicos Islands, Venezuela, ACI, COCESNA and IATA.

ii.8 Conclusions and Decisions

The Central Caribbean Working Group recorded its activities as 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/3
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3/14	NEED TO STUDY AND APPLY SOLUTIONS TO THE EXISTING PROBLEMS IN THE C/CAR WORKING GROUP TO DEAL WITH MET AND SAR-RELATED MATTERS	7-1

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

Working Papers

Number	Agenda Item	Title	Date	Presented by
WP/01	---	Agenda, Explanatory Notes, Working Method, Organization and Schedule	23/01/03	Secretariat
WP/02	1	Review of the outstanding conclusions/decisions of the Group and of the NACC/DCA/1 Meeting	04/02/03	Secretariat
WP/03	1	Review of the ICAO Database of Air Navigation Deficiencies in the Central Caribbean	14/02/03	Secretariat
WP/04	1	Studies on the CNS/ATM development scenarios in the Central Caribbean and neighbouring airspace	25/02/03	Secretariat
WP/05	2	Aerodrome Certification and Audits	26/02/03	Secretariat
WP/06	3	Follow-up of the implementation of the WGS-84, the AIS/MAP integrated automated (data bases) system and the AIS/MAP quality assurance system	21/02/03	Secretariat
WP/07	4	Results of the GREPECAS/11 and NACC/DCA/1 meetings related to ATM developments in the Central Caribbean.	26/02/03	Secretariat
WP/08	5	Follow-up and coordination for the implementation of the CNS systems in the Central Caribbean	26/02/03	Secretariat
WP/09	6	Proposed Actions to Improve and Develop the Meteorological Services in the Central Caribbean	19/02/03	Secretariat
WP/10	7	Review of the Terms of Reference and Work Programme of the Central Caribbean Working Group	03/03/03	Secretariat
WP/11	4	Letter of Agreement between the Central Caribbean ACCS and Facilities of Adjacent Airspaces	10/03/03	Haiti
WP/12	4	RVSM Implementation	10/03/03	Haiti
WP/13	4	Realignment of A315 in Haiti, Dominican Republic and Curacao Airspaces	10/03/03	Haiti
WP/14	4	ATS Contingency Plan for the Central Caribbean	10/03/03	Haiti
WP/15	4	ATS Quality Assurance programme	10/03/03	Haiti

Information Papers

Number	Agenda Item	Title	Date	Presented by
IP/01 Rev.	--	List of Working and Information Papers	10/03/03	Secretariat
IP/02	--	General Information	14/02/03	Secretariat

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Discussion Papers

Number	Agenda Item	Title	Date	Presented by
DP/01	1	Report of the Work of the Deficiencies Ad Hoc Group	27/03/03	Rapporteur of the Ad hoc Group
DP/02	3	Report of the Work of the AIS Ad Hoc Group	27/03/03	Rapporteur of the Ad hoc Group
DP/03	4	Report of the Work of the ATM Ad Hoc Group	27/03/03	Rapporteur of the Ad hoc Group
DP/04	5	Report of the Work of the CNS Ad Hoc Group	27/03/03	Rapporteur of the Ad hoc Group

**OPENING SPEECH BY THE HONOURABLE
MR. HERBERT DOMACASSE
MINISTER OF TRANSPORT AND COMMUNICATIONS**

Ladies and Gentlemen, Good morning!

A while ago when I was standing outside the Kura Hulanda Conference Room and looked around me, I realized that I am not pretending when I say that the organizing institution made a very good choice when they offered the Netherlands Antilles to host this meeting. All the islands of the Netherlands are indeed beautiful, each with its unique features. This friendly island in particular is one of the most beautiful islands of the Caribbean.

Ladies and Gentlemen, on behalf of the government of the Netherlands Antilles and its people, welcome to Curacao and enjoy your stay.

By hosting this Third Central Caribbean Working Group meeting, the Netherlands Antilles is clearly indicating its commitment to the International Civil Aviation Organization programs, rules and procedures.

Today on behalf of the government of the Netherlands Antilles I would like to stress our commitment to continue to work and participate proactively in the safe development of the air transport industry and its supporting services. One of the primary objectives of my ministry is the enhancement of safety and efficiency in international civil aviation. A safe and efficient air transportation system is a direct requirement for our touristic sector and the economic and social welfare of our community. We therefore praise the effort of the ICAO North American Central American And Caribbean Office to organize this type of meetings and of course all the other activities executed by the organization in order to foster safety efficiency and regularity of Civil Aviation. I want to express my gratitude to ICAO for the conduct of seminars and workshops. Seminars and workshops are effective means of assisting states to improve their oversight capabilities; they aid the industry in maintaining a safe performance and have a positive effect on the consultation process between the industry and regulator. A good example is the Aerodrome Manual Working Group, created during a less formal talk between the representatives of Directorate of Civil Aviation and airport representatives who attended the Aerodrome Certification workshop in Trinidad. In this working group all our five international airports are participating in a team with us, who regulate and control safety.

In our continuous effort to ensure safety and compliance with the ICAO standards and recommended practices the Council of Ministers just passed two major pieces of aviation legislation namely, the Government Decree “Civil Aviation Safety Oversight” and the Government Decree “Air Traffic Services”.

The Netherlands Antilles made significant progress in the implementation of the action plan developed as a result of the audit carried out under the ICAO Universal Safety Oversight Programme. This has been confirmed by the follow-up audit by ICAO that finished last Friday.

We will continue to train our aeronautical technical personnel and review and amend existing regulations to keep pace with the dynamics in civil aviation.

Ladies and gentlemen,

In the meetings program I noticed that it is expected to review and update the status of implementation of aerodrome certification in the Central Caribbean Region.

I am pleased to notify the meeting that the Government Decree “Civil Aviation Oversight” requires all airports within the Netherlands Antilles engaged in international air services to be certified before the 27 of November this year.

To achieve this, the aerodrome operation inspectors of my Ministry are working in a team with the airport industry to ensure that they meet the required operational readiness for certification before applying for the aerodrome certification for a seamless certification process.

With respect to air traffic services within the Netherlands Antilles it is for me a pleasure to inform the meeting that the process to corporatize this service is in its final stages.

With regard to communication and surveillance, I invite the meeting to pay a visit to the new home of the air traffic services Netherlands Antilles where participants of the meeting can observe the 250 nautical miles range radar facility and new communication systems, which within a couple of months will be used to communicate and control the sky pertaining to the Curacao FIR.

The MEVA installation enhanced our voice circuits and provides Curacao Control the capacity of instant communication with all air traffic services participating in this ICAO project.

We suggest the ICAO NACC office to urge all states providing air traffic services within the Central Caribbean Region to become part of this project for its cost effectiveness and before all for the safety of aircraft transiting the Central Caribbean flight information regions.

The final installation of our new digital extended VHF transceivers with a power output of 200W, about one week ago, ensures communications reliability within the whole Curacao flight information region since it gives us a communication range beyond radio horizon. A continuous check of the communication range during this week confirms aircraft receptions beyond 400NM, which is beyond the theoretical VHF range but within expected range of digital extended VHF.

I am convinced the points just brought forward give the meeting a good view of the sufficient awareness of Netherlands Antilles with regard to deficiencies reported to them by ICAO NACC office and their effort to progress with regard to recommendations made by ICAO to rectify any deficiency noticed.

Ladies and Gentlemen, this meeting is opening at a time when security concerns everyone engaged in civil aviation activities.

The security at airports and aboard aircraft has to be monitored carefully.

Our government will continue to implement any reasonable measure which can mitigate the hazard imposed by terrorism for the international civil aviation and as such will contribute to increase and maintain the integrity of this vital means of transportation.

Every conclusion of this meeting to enhance safety and security of international civil aviation will be considered seriously by our government.

Permit me to express the gratitude of our government to allow us to put our country to the disposition of the Meeting. Our government is convinced of the important role the ICAO NACC office plays promoting an operational safe and expeditious air transport system for our regions. We are really proud in hosting this Meeting.

Our government is confident that ICAO NACC will address all the safety issues and other matters of common interest or concern during this meeting.

Before finishing my presentation I want to make use of the opportunity to express my gratitude to IATA. The International Air Traffic Association was established on 28 of august in The Hague, Netherlands. This organization was re-established in 1945 as "International Air Transport Association". The IATA has always been valuable contributor to the success of these regional meetings.

My gratitude goes also to all the other international organizations represented in this meeting.

Ladies and Gentlemen,

This meeting has to address the challenges put to it by the various GREPECAS and directors meetings. More than 14 working papers have been prepared for this meeting.

To finish all the tasks at hand requires a great spirit of cooperation and a determination of all participants to reach the goal of the meeting.

Together we can achieve anything, but only all of us together.

It is therefore my wish that this regional meeting becomes a showcase of hard working professionals, all aiming to the success of the meeting.

Ladies and gentlemen Let's make it happen.

I hereby declare this meeting officially open.

Have a fruitful meeting.

LIST OF PARTICIPANTS

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Agenda Item 1: General matters

Review of the outstanding conclusions/decisions of the Group and of the NACC/DCA/I Meeting

1.1 The Meeting reviewed the status of the valid conclusions and decisions of the Central Caribbean Working Group (C/CAR WG) issued by its first meeting, which were reviewed and adopted by the Fifth Meeting of Directors of Civil Aviation of the Central Caribbean, held in Montego Bay, Jamaica from 21 to 24 May 2001; as well as those issued by the second meeting of the Group, held in Port-au-Prince, Haiti, from 18 to 22 February 2002, which were approved by the Directors of Civil Aviation of the Central Caribbean through correspondence.

1.2 The Meeting also received information and noted the conclusions issued by the First North American, Central American and Caribbean Directors of Civil Aviation Meeting aimed at continuing and following-up the actions to improve and develop air navigation systems in the Caribbean, and as part of it, in the Central Caribbean. With regard to Conclusion 1/1 of the aforementioned meeting, concerning the main guidelines for the development of air navigation systems, the Meeting was of the opinion that these guidelines constitute a very useful tool for the work of the Group, and thus it should be kept up-to-date as a useful reference. **Appendix A** presents an updated table with the guidelines and the related conclusions. Based on this, the Meeting agreed that those previous C/CAR Working Group conclusions, for which the actions are contained in the aforementioned guidelines, should be considered as replaced.

1.3 Based on the information and consideration expressed in the paragraphs above, and bearing in mind the work carried out to date, the Meeting reviewed the status of the conclusions and decisions of the Group. The result of this review is included in **Appendix B** to this part of the report, as well as the remarks of the Meeting on some conclusions and decisions.

Air Navigation deficiencies in the Central Caribbean area

1.4 The Secretariat presented WP/03 with the current version of the ICAO database of the reporting form on air navigation deficiencies in the Central Caribbean area, including those that had been reported to have been corrected. The relevant Conclusions of the GREPECAS/11 (Brazil, December 2002) and NACC/DCA/1 (Cayman Islands, October 2002) Meetings and ICAO State Letter M 6/1-02/79 dated 27 September 2002 requesting States to prepare and submit to ICAO an Action Plan for the correction of deficiencies were discussed.

1.5 The Meeting reviewed the contents of the aforementioned paper and agreed for States/Territories to implement the following actions in accordance with ICAO Council approved uniform methodology, existing GREPECAS and DCA conclusions, and ICAO State Letter mentioned in paragraph 1.4, to encourage and facilitate the resolution of outstanding deficiencies in the Central Caribbean area:

- a) review the reporting form and submit any updated information to the ICAO NACC Office;

- b) prepare an Action Plan for the resolution of the outstanding deficiencies and submit it to the ICAO NACC Regional Office by **30 April 2003**; and
- c) implement multinational agreements and international co-operation projects to contribute to the resolution of the outstanding deficiencies, inform the ICAO Regional Office of these initiatives and request ICAO assistance for coordination, if required.

1.6 Updated information was received by the Secretariat from Cayman Islands, Cuba, Jamaica and the Netherlands Antilles in relation to corrected deficiencies. An Ad hoc Group was also established comprising the Netherlands Antilles (rapporteur), Hato International Airport on Curaçao and ICAO. The Group developed an Action Plan for the resolution of outstanding AGA deficiencies reported for Hato International Airport on Curaçao. The resulting Action Plan is included in **Appendix C** to this part of the report, which can serve as an example for the preparation of such Action Plans.

1.7 The Meeting requested ICAO to consider making the reporting form on air navigation deficiencies available on the ICAO web site, with whatever confidentiality control measures were considered appropriate, in order to enable States/Territories/International Organizations to monitor the current version of the database at any time. The Secretariat informed the Meeting that the implementation of this provision was already under consideration by the ICAO NACC Regional Office.

1.8 The Meeting was invited to refer to the deficiencies table throughout its deliberations, particularly during the Ad hoc Groups analysis of technical matters, in order to initiate and/or contribute to the preparation of Action Plans when possible. When editing this final version of the summary of discussions, the Secretariat of the Group received the Action Plan to solve the existing deficiencies in Cayman Islands.

Scenarios for the study and implementation of CNS/ATM systems in the Central Caribbean and neighbouring airspace

1.9 In accordance with Conclusion 2/15 of the C/CAR Working Group and with Conclusion 1/15 of the First North American, Central American and Caribbean Directors of Civil Aviation Meeting, the Group started to identify and study the CNS/ATM scenarios in the Central Caribbean area, basing its work on GREPECAS Conclusions, the layout of the ATS routes, the location of the States/Territories/International Organizations of the Central Caribbean and neighbouring FIRs, as well as in the CAR/SAM Regional Plan for the Implementation of the CNS/ATM Systems.

1.10 The Group agreed that the Central Caribbean area should be considered as a sole homogeneous scenario from the CNS/ATM implementation viewpoint. Notwithstanding this, with the aim of facilitating the in-depth study of the improvements of CNS elements, the Meeting agreed to consider two scenarios within the C/CAR area, named C/CAR-A and C/CAR-B. The CNS C/CAR-A scenario was composed of the common boundary zones of the Barranquilla, Havana, Kingston, Mexico, Miami Oceanic, Nassau, Panama and CENAMER FIRs. The CNS C/CAR B scenario was formed by the common boundary zones of the Barranquilla, Curaçao, Havana, Kingston, Port-au-Prince, San Juan, Santo Domingo and Maiquetía FIRs. The Meeting also agreed that the study for the implementation of ATM elements should be done taking into account the entire C/CAR homogeneous area, in view that it would facilitate the analysis for the implementation of RNAV routes and other ATM elements.

Appendix D to this part of the report shows the layout of the FIRs assigned to the responsibility of the States, Territories and International Organization, as well as the areas that defined the proposed ATM and CNS scenarios for the Central Caribbean.

1.11 Finally, the Meeting began to study the ATM and CNS elements, the results of which are reported under agenda items 4 and 5 respectively. It also considered that the results of these ATM and CNS studies, according to each scenario, should be consolidated by the Group to help with the development of the CNS/ATM Central Caribbean Subregional Plan, and the implementation of this Subregional Plan as part of the CAR/SAM Regional Plan for the Implementation of the CNS/ATM Systems.

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APPENDIX A TO AGENDA ITEM 1

APPENDIX A

Executive Summary of the Recommendations/Conclusions/Decisions of the CAR/SAM Regional and CAR Subregional Meetings

ITEM	FIELD	MATTER/STATUS AND OBJECTIVE	REFERENCE RECOMMENDATIONS/CONCLUSIONS/DECISIONS								
			CAR/SAM		NAM/CAR	CAR					
			CAR/SAM/3 RAN	GREPECAS	NACC/DCA/1	C/CAR			E/CAR		CAM
						C/CAR/WG	C/CAR/DCA	MEVA	E/CAR/WG	E/CAR/DCA	DGAC CAP
1	2	3	4	5	6	7	8	9	10	11	12
1	GEN										
1.1		Solution to air navigation services deficiencies The review and update of existing deficiencies in the AGA, AIS/MAP, ATM, CNS, MET and SAR fields is kept, urging the States/International Organizations to make every effort in order to solve them.	4/1 13/19	10/59 10/60 11/55 11/58	1/20	1/4 1/9 1/20 1/30 2/8 2/19	5/3 5/8 5/22 5/32		24/21 25/9 25/10 25/21 25/32	16/14 17/7	85/6
1.2		Implementation of the requirements established in the CAR/SAM ANP The follow-up to the implementation of the requirements established in the FASID on the air navigation fields AGA, AIS/MAP, ATM, CNS, MET and SAR, as well as the relevant amendments is needed.	7/9 7/8 8/1 8/2 8/4 9/2 9/13 9/21 10/2 11/3	9/15 10/5 10/21 10/31 10/41		1/18 1/19 1/29 2/7 3/9 3/12	5/16 5/21				88/12
2	AGA										
2.1		Aerodrome Certification States were urged to implement aerodrome certification in order to comply with the new SARPs no later than 27 November 2003.		10/44 10/45 10/46 11/11		1/5 2/18	5/4			16/16	88/2

THIRD CENTRAL CARIBBEAN WORKING GROUP MEETING (C/CAR WG/3)

SUMMARY OF DISCUSSIONS

APPENDIX A TO AGENDA ITEM 1

ITEM	FIELD	MATTER/STATUS AND OBJECTIVE	REFERENCE RECOMMENDATIONS/CONCLUSIONS/DECISIONS								
			CAR/SAM		NAM/CAR	CAR					
			CAR/SAM/3 RAN	GREPECAS	NACC/DCA/1	C/CAR			E/CAR		CAM
1	2	3	4	5	6	7	8	9	10	11	12
2.2		Aerodrome Maintenance Programmes States were urged to ensure that the aerodromes operators implement and keep aerodrome maintenance programmes in order to contribute with aircraft operations safety in runways, taxiways and aprons.	4/13	10/43 11/9							
2.3		Bird Hazard National and Regional Committees States were urged to establish and keep Bird Hazard National Committees. It is also intended to establish a CAR/SAM Regional Bird Hazard Prevention Committee to deal with the relevant regional problems.	4/10	10/48 11/7			4/7				85/7
2.4		Runway Incursions. States were urged to gather and compile reports on aerodromes operators, air traffic services and aircraft operators runway incursions incidents in order to analyze and prevent their negative impact on operational safety.		10/47 11/8						16/17	
3	AIS/MAP										
3.1		Aeronautical Information Services and Aeronautical Charts Automation States/International Organizations of the CAR Region have been urged to implement an Integrated AIS/MAP Automated System in order to meet the operational requirements of the CNS/ATM Systems through the transition of the current AIS manual systems towards a totally automated and integrated AIS/MAP environment, which design is based on common procedures and standardized formats, especially AIS/MAP Data Bases Systems.	12/7	8/5 10/51 10/54	1/16	1/8 2/16 3/4	4/13 5/7		22/5 23/11 26/7 26/8		85/15 88/6

THIRD CENTRAL CARIBBEAN WORKING GROUP MEETING (C/CAR WG/3)

SUMMARY OF DISCUSSIONS

APPENDIX A TO AGENDA ITEM 1

ITEM	FIELD	MATTER/STATUS AND OBJECTIVE	REFERENCE RECOMMENDATIONS/CONCLUSIONS/DECISIONS								
			CAR/SAM		NAM/CAR	CAR					
			CAR/SAM/3 RAN	GREPECAS	NACC/DCA/1	C/CAR			E/CAR		CAM
C/CAR/WG	C/CAR/DCA	MEVA				E/CAR/IWG	E/CAR/DCA	DGAC CAP			
1	2	3	4	5	6	7	8	9	10	11	12
3.2		Implementation of AIS/MAP Quality System States/International Organizations of the CAR Region were urged to implement as soon as possible an AIS/MAP Quality System, so that the system allows quality assurance of the Aeronautical Information/Data for Global Air Navigation in order to provide AIS/MAP services with a high quality level of its products.	12/1		1/16	1/8 2/16 3/4	4/14 5/7		26/7		85/16 88/8
3.3		Total implementation of WGS-84 In the CAR Region, the lack of total implementation of WGS-84, as a Common Geodetic Reference for Global Air Navigation, affects the development of strategies for the progressive introduction of requirements concerning the implementation of Area Navigation (RNAV) as part of the future implementation of the Global Navigation Satellite System (GNSS) and the Regional CNS/ATM Transition Plan among others.	12/6	10/49 10/55 10/56 10/57 11/63	1/16	1/7 2/17 3/2	4/16 5/6		22/7 24/24 25/20 26/10	16/9	85/17 86/1 86/2 86/4 87/3 88/4 88/5
4	ATM										
4.1		Implementation of RNAV Routes States/International Organizations have been urged to continue the implementation of RNAV routes affecting the CAR Region. This implementation would require an amendment to the CAR/SAM ANP Volume I, Basic (Doc 8733), which has been suggested through GREPECAS.	5/15 5/16 5/22 5/23	8/10 8/11 10/10 11/21	1/10	1/10	4/9 5/9		24/27 24/28 25/1		88/10
4.2		Implementation of Required Navigation Performance (RNP) States/International Organizations have also been urged to implement RNP.	5/23 10/17	8/32 10/13 10/14	1/10						

THIRD CENTRAL CARIBBEAN WORKING GROUP MEETING (C/CAR WG/3)

SUMMARY OF DISCUSSIONS

APPENDIX A TO AGENDA ITEM 1

ITEM	FIELD	MATTER/STATUS AND OBJECTIVE	REFERENCE RECOMMENDATIONS/CONCLUSIONS/DECISIONS								
			CAR/SAM		NAM/CAR	CAR					
			CAR/SAM/3 RAN	GREPECAS	NACC/DCA/1	C/CAR			E/CAR		CAM
C/CAR/WG	C/CAR/DCA	MEVA				E/CAR/WG	E/CAR/DCA	DGAC CAP			
1	2	3	4	5	6	7	8	9	10	11	12
4.3		Implementation of Reduced Vertical Separation Minimum of 300 mts GREPECAS has urged the States/Territories and COCESNA to implement RVSM in the respective Flight Information Regions through an implementation programme by steps, and using an implementation framework adopted by GREPECAS/10.	5/27 5/28 5/29 5/31	8/14 10/11 10/13 10/14 11/23 11/25 11/29	1/11	2/2 3/6			25/6 26/5		
4.4		ATS Contingency Plans GREPECAS has urged the States/Territories/International Organizations to review the contingency plans among adjacent ATS units developed for the Y2K rollover and to adopt them for any event that might affect the provision of ATS and related services.		10/8	1/19	2/4	4/8		20/2 20/3 24/4 25/3 26/4		85/8 87/8
4.5		ATS Quality Assurance Programmes GREPECAS has urged the States/Territories/International Organizations to use the "CAR/SAM Regional Guidance Material for Air Traffic Services Quality Assurance Programmes" adopted by GREPECAS/10.	5/37 5/38	10/18 10/58	1/8	2/5			25/6 26/5		84/6 88/3
4.6		Civil/Military coordination and interception of civil aircraft The CAR/SAM/3 RAN urged the States to establish appropriate civil/military coordination bodies to ensure the coordination of the decisions regarding civil and military problems on airspace management, air traffic control and measures to prevent the unnecessary interception of civil aircraft.	5/6 5/7 5/8 5/11 5/12			1/17	5/15				

THIRD CENTRAL CARIBBEAN WORKING GROUP MEETING (C/CAR WG/3)

SUMMARY OF DISCUSSIONS

APPENDIX A TO AGENDA ITEM 1

ITEM	FIELD	MATTER/STATUS AND OBJECTIVE	REFERENCE RECOMMENDATIONS/CONCLUSIONS/DECISIONS								
			CAR/SAM		NAM/CAR	CAR					
			CAR/SAM/3 RAN	GREPECAS	NACC/DCA/1	C/CAR			E/CAR		CAM
						C/CAR/WG	C/CAR/DCA	MEVA	E/CAR/WG	E/CAR/DCA	DGAC CAP
1	2	3	4	5	6	7	8	9	10	11	12
5	CNS										
5.1		Support to ICAO position at the ITU's WRC-2003. Support ICAO position at the ITU's WRC-2003 to defend the interests and needs of radio frequency spectrum for civil aviation.		9/1 9/2 10/19 11/39	1/13	2/6	5/29				88/11
5.2		Development and interconnectivity of regional digital networks. It is intended to complete the implementation and management of regional networks CAMSAT, E/CAR and MEVA of the CAR Region, to attain the interconnectivity with South American REDDIG network in order to achieve the complete implementation and improvement of the required AFS circuits and to facilitate the backbone support for the implementation of ATN.	9/1 13/29 13/30	10/2 10/25 10/26 10/27 10/28				8/13 8/14 8/15	23/19 23/20 24/11 25/11 25/12 25/13 26/11 26/12	16/12 17/4	
5.3		Improvement of and compliance with the required VHF/HF AMS coverage. It is required to complete and improve VHF and HF air-ground communications coverage, especially by continuing the implementation and improvement of VHF and HF stations to serve Curacao, Kingston, Piarco and CENAMER FIRs.	9/21 10/2 10/6	10/29		1/21 1/22 1/23 2/9 2/10 3/10	5/17				88/15

THIRD CENTRAL CARIBBEAN WORKING GROUP MEETING (C/CAR WG/3)

SUMMARY OF DISCUSSIONS

APPENDIX A TO AGENDA ITEM 1

ITEM	FIELD	MATTER/STATUS AND OBJECTIVE	REFERENCE RECOMMENDATIONS/CONCLUSIONS/DECISIONS								
			CAR/SAM		NAM/CAR	CAR					
			CAR/SAM/3 RAN	GREPECAS	NACC/DCA/1	C/CAR			E/CAR		CAM
1	2	3	4	5	6	7	8	9	10	11	12
5.4		Transition from AFTN to ATN. Implementation of ATN ground portion. Most circuits and AFTN Centres have been implemented in accordance with the requirements established in the CAR/SAM ANP. It is necessary to improve the circuits and AFTN centres pending and to continue the transition and the development for the implementation of the ground portion of ATN.	9/2 9/3 9/4 9/5 9/6 9/13	10/20 10/21 10/22 10/23 10/24 11/41		1/24 2/11 3/11	5/18	7/6 7/9 8/6 8/8 8/9	25/14		88/16
5.5		GNSS Implementation. States/International Organizations pretend to continue actions towards GNSS planning and implementation in the Region. Among these actions, it is necessary to update and publish national legislations/regulations authorizing the use of GNSS.	10/1 10/2 10/6	10/32 11/44 11/45 11/46		1/25 1/26 2/12	5/19		25/15 25/11		88/17 88/18
5.6		Radar data exchange. It is intended to develop radar data sharing among ATC units in order to improve radar service. States/International Organizations are urged to consider the initial regional guidelines on radar data sharing developed by GREPECAS.	11/4 11/5	10/33 11/47		1/27 1/28 2/13 2/14	4/11 5/20		24/13 24/14 25/16 26/13		84/5 85/14 88/19

THIRD CENTRAL CARIBBEAN WORKING GROUP MEETING (C/CAR WG/3)

SUMMARY OF DISCUSSIONS

APPENDIX A TO AGENDA ITEM 1

ITEM	FIELD	MATTER/STATUS AND OBJECTIVE	REFERENCE RECOMMENDATIONS/CONCLUSIONS/DECISIONS								
			CAR/SAM		NAM/CAR	CAR					
			CAR/SAM/3 RAN	GREPECAS	NACC/DCA/1	C/CAR			E/CAR		CAM
C/CAR/WG	C/CAR/DCA	MEVA				E/CAR/IWG	E/CAR/DCA	DGAC CAP			
1	2	3	4	5	6	7	8	9	10	11	12
6	MET										
6.1		Significant Weather Charts (medium level) (SWM) for the CAR/SAM Regions In view that there are no significant weather charts medium level requirements, Washington WAFC will not produce SWM maps for limited zones of the CAR/SAM Regions.		10/34 11/70							
6.2		Maintenance of WAFS equipments and systems That States acquire a new workstation considering the technical functional specifications in accordance with the information provided by Washington WAFC. That a maintenance service contract be obtained in order to support the operation of the workstation of the WAFS.		10/35 11/71 1/17	1/17						
6.3		Communication problems regarding OPMET information exchange The COM/MET SIP Phase I (Central America and Mexico) detected communication problems, there are also some problems affecting OPMET information exchange in the rest of the CAR Region. In order to solve these problems, the adoption of relevant actions by States / Territories / International Organizations is required.	8/3	9/5 9/6 10/36		1/33	5/25				
6.4		COM/MET Special Implementation Project (SIP) As a result of the actions carried out by the NACC Regional Office and the Air Navigation Commission, ICAO Council also approved the communications/aeronautical meteorology special implementation project (COM/MET SIP) for the CAR Region, comprising Central and Eastern Caribbean, which will be held as at end September 2002.		9/7 10/37 1/18	1/18						

THIRD CENTRAL CARIBBEAN WORKING GROUP MEETING (C/CAR WG/3)

SUMMARY OF DISCUSSIONS

APPENDIX A TO AGENDA ITEM 1

ITEM	FIELD	MATTER/STATUS AND OBJECTIVE	REFERENCE RECOMMENDATIONS/CONCLUSIONS/DECISIONS									
			CAR/SAM		NAM/CAR	CAR						
			CAR/SAM/3 RAN	GREPECAS	NACC/DCA/1	C/CAR			E/CAR		CAM	
C/CAR/WG	C/CAR/DCA	MEVA				E/CAR/IWG	E/CAR/DCA	DGAC CAP				
1	2	3	4	5	6	7	8	9	10	11	12	
7	MCI/SAR											
7.1		Regional Response Plan to Mass Casualty Civil Aviation Incidents. States have agreed upon actions to develop a Response Plan for Mass Casualties Incidents in the Caribbean.			1/27		4/12 5/31			16/18 17/3		
7.2		Search and Rescue (SAR) Agreements among States States/Territories/International Organizations have been requested to develop a SAR Plan for the CAR Region including the necessary procedures and resources for effective SAR services provision.	6/3 6/4 6/5 6/7 6/8 6/11 6/12		1/26		3/14 5/30			16/3 17/1 17/2		

APPENDIX B

REVIEW OF THE STATUS OF THE C/CAR WG CONCLUSIONS AND THE DECISIONS

CONCLUSIONS	
No.	Remarks
	<u>On-going:</u>
1/10 b) & c)	b) Maiquetia has not replied to the requests of Curaçao and San Juan to update the LOAs with the new separation standard. c) It is required that ICAO NACC Office urge Venezuela to complete and implement new LOAs with the neighbouring CAR States/Territories.
1/15	
1/16	
1/18 b)	b) Bilateral agreements are required between Netherlands Antilles and Colombia to implement the ATS speech circuit Curaçao ACC/Barranquilla ACC.
1/22	The new date 15 May 2003 has been established in order to comply with item a).
1/31	
1/33	
2/3	The States/Territories should update their LOAs using the new format.
2/15	
	<u>Replaced:</u>
1/7	Replaced by NACC/DCA-1/16
1/8	Replaced by C/CAR WG-2/16
1/9	Replaced by NACC/DCA-1/20
1/12 c)	Item c) is replaced by: "implement the above by 27 November 2003 and inform the ICAO Regional Office when the aforementioned Committee and the tracing process have been established.
1/24	Replaced by GREPECAS 10/20 to 10/24 and 11/41
1/26	Replaced by GREPECAS. Cayman Islands and Netherlands Antilles are developing their regulation.
1/28	Replaced by GREPECAS-10/33, 11/47 and C/CAR WG/3 para 5.22
1/29	Replaced by C/CAR WG/3
1/30	Replaced by NACC/DCA-1/20
2/1	Replaced by C/CAR WG/3 para 4.4 to 4.10
2/4	Replaced by C/CAR WG/3 para 4.18
2/5	Replaced by NACC/DCA-1/18
2/6	
2/7	Replaced by C/CAR WG/3-3/9-3/9
2/8	Replaced by NACC/DCA/1
2/11	Replaced by GREPECAS-10/22, 10/23, 10/24 and 11/41
2/12 a)	Replaced by GREPECAS-10/32
2/14	Replaced by NACC/DCA/1
2/16	Replaced by C/CAR WG/3-3/4
2/17	Replaced by C/CAR WG/3-3/2
2/19	Replaced by NACC/DCA-1/20

SUMMARY OF DISCUSSIONS

APPENDIX B TO AGENDA ITEM 1

1B-2

CONCLUSIONS	
No.	Remarks
	<u>Completed:</u>
1/10 a)	
1/17	
1/18 a)	
2/2	Implementation date (20 January 2005) and flight level (FL 290 – FL410, inclusive) have been harmonized among the plans.
2/9	
2/20	

DECISIONS	
No.	Remarks
	<u>On-going:</u>
2/18	
	<u>Replaced:</u>
1/11	Replaced by C/CAR WG/3-3/5
1/19	Replaced by C/CAR WG/3-3/18
1/20	Replaced by NACC/DCA1-1/20, GREPECAS-11/55 and 11/58
2/13	Replaced by C/CAR WG/3 para 5.22
	<u>Completed:</u>
1/23	
1/27	
2/20	

APPENDIX C

**ACTION PLAN FOR RESOLVING THE AGA DEFICIENCIES AT HATO INTERNATIONAL AIRPORT, CURACAO,
NETHERLANDS ANTILLES**

State/Facilities: Netherlands Antilles, CURACAO / WILLEMSTAD, Hato Int'l Airport

Date : 25 March 2003

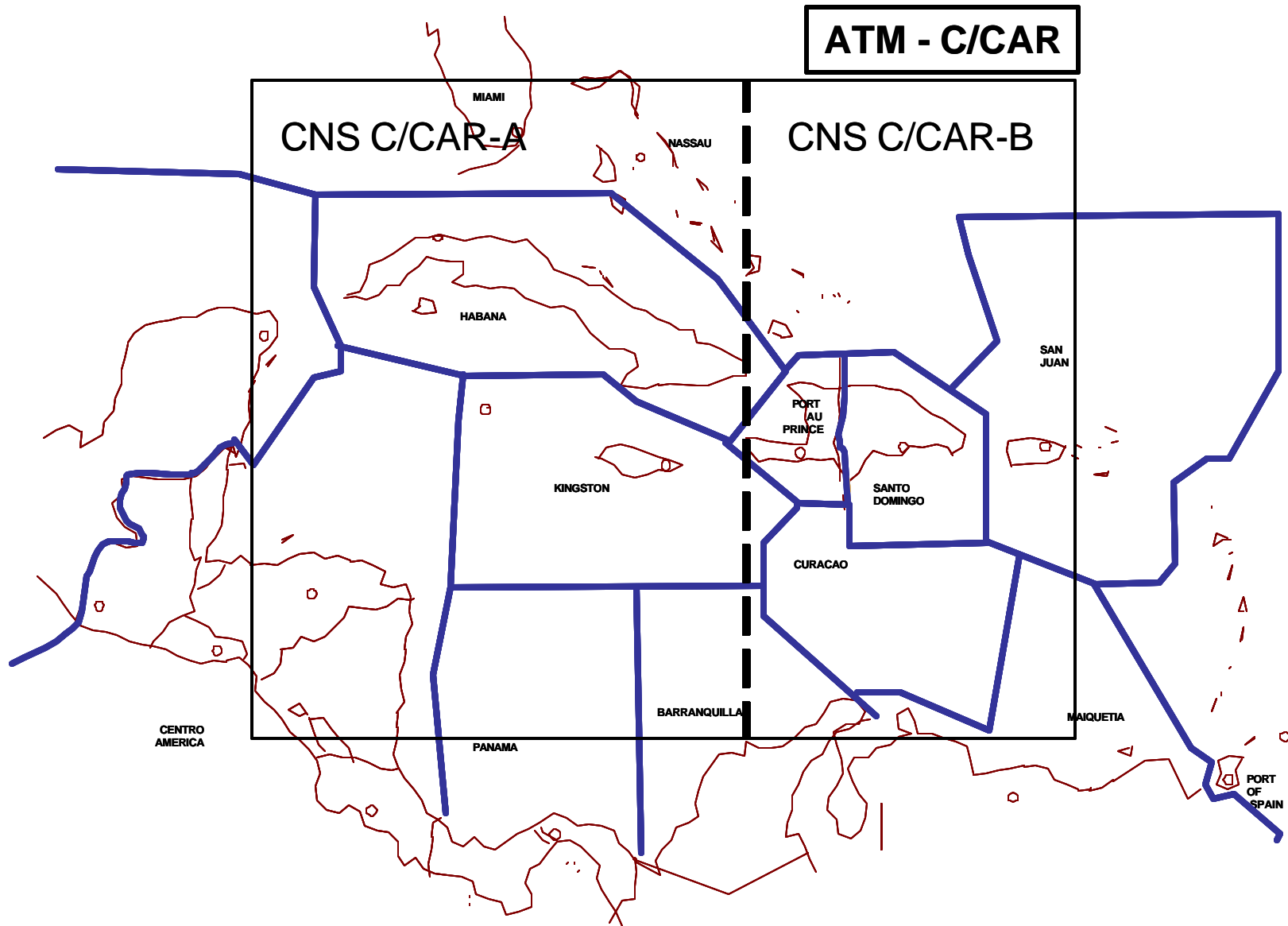
Deficiency	Corrective Action	Date of Correction	Difficulties encountered
AGA 249 C Visual Aids (Annex 14, Vol. I, Chap. 5 - 5.3.14.1) - Stopway lights are not provided on Runway 11..	1. NOTAM to be issued by DCA notifying lack of stopway lights. 2. Airport operator to engage in consultation process with DCA and aircraft operators to confirm the need for stopways. 3. If stopways are not necessary, DCA not to declare, modify the runway declared ASDA distance and amend AIP. 4. If stopways are necessary, airport operator to provide stopway lights.	. 25/3/03 15/4/03 AIRAC cycle 31/3/04	
AGA 246 C Visual Aids (Annex 14, Vol. I, Chap. 5 - 5.2.8.1 & 3) - Taxiway centreline markings at runway – taxiway intersections are not provided on some taxiways.	Airport operator to paint taxiway centreline markings on runway intersections.	30/4/03	

THIRD CENTRAL CARIBBEAN WORKING GROUP MEETING (C/CAR WG/3)
SUMMARY OF DISCUSSIONS
APPENDIX C TO AGENDA ITEM 1

1C-2

Deficiency	Corrective Action	Date of Correction	Difficulties encountered
AGA 248 C Visual Aids (Annex 14, Vol. I, Chap. 5 - 5.3.5.1 and ANP FASID Table AOP1) - A visual approach slope indicator system is not provided for Runway 29.	1. Airport operator to engage in consultation process with DCA and aircraft operators to confirm the need for PAPI lights. 2. If PAPI lights are necessary, airport operator to provide.	30/4/03 31/12/04	High cost of provision and low utilisation of Runway 29 (< 1%).
AGA 247 C Visual Aids (Annex 14, Vol. I, Chap. 5 - 5.3.4.1C and ANP FASID Table AOP1) - A simple approach lighting system is provided for Runway 11 instead of a Category I precision approach lighting system.	1. Airport operator to engage in consultation process with DCA and aircraft operators to confirm the need for a Category I precision approach lighting system and submit a technical aeronautical study to the DCA to request acceptance of non-compliance with standard requirement, if applicable. 2. If a Category I precision approach lighting system is necessary, airport operator to provide.	30/4/03 31/12/04	High cost of provision and pilot reports of blinding by existing lights.
AGA 251 C Pavement Surface Conditions (Annex 14, Vol. I, Chap. 9.4 - 9.4.4) - Runway pavement has extensive cracking.	Airport operator to seal runway surface.	30/6/03	Airport operator has carried out a specialized technical study, which establishes that the cracking is only superficial, not structural.
AGA 250 C Pavement Surface Conditions (Annex 14, Vol. I, Chap. 9.4 - 9.4.3) - Parallel taxiway pavement has extensive cracking from the apron to Runway 11.	Airport operator developing a new re-aligned Taxiway A West.	31/7/03	

**CENTRAL CARIBBEAN CNS/ATM SCENARIOS
ESCENARIOS CNS/ATM CARIBE CENTRAL**



Agenda Item 2: AGA Developments

2.1 The Secretariat presented WP/05 on aerodrome certification and audits. A status report on aerodrome certification implementation, based on the information provided by States/Territories at regional meetings and in response to an ICAO implementation follow-up letter sent to States /Territories, was reviewed. The report was updated with information provided to the Meeting by Haiti and the Netherlands Antilles. The revised status report on aerodrome certification implementation is included in the **Appendix** to this part of the report.

2.2 The Meeting also reviewed the draft Preparatory Work Plan for the expansion of the ICAO Universal Safety Oversight Audit Programme (USOAP) to aerodromes.

2.3 The Meeting considered that the C/CAR/WG Decision 2/18 (Follow up to the Implementation of Aerodrome Certification in the C/CAR States/Territories) remained valid and merited retention until the aerodrome certification deadline date of 27 November 2003 was reached.

2.4 The Meeting was informed of aerodrome inspector/auditor workshops planned to be held in the second half of 2003.

Aerodrome Certification in the C/CAR Area			
State/Territory	Certification System Implementation Progress/Status	Certification Commencement Date	Remarks
Aruba	Implemented	-----	
Bahamas	Did not report to ICAO	?	
Cuba	Implemented	-----	
Dominican Republic	In the process of amending legislation to include aerodrome certification and develop the associated regulations	2003	
Haiti ¹	The regulations for aerodrome certification and the licensing system are in preparation and to be completed by June 2003	2003	
Jamaica	Implemented	-----	
Netherlands Antilles	The Council of Ministers has passed aviation legislation - Government Decree "Civil Aviation Safety Oversight" which requires all airports within the Netherlands Antilles engaged in international air services to be certified by 27 November 2003. Aerodrome Manual Working Group established to prepare airports.	2003	
United Kingdom Cayman Islands Turks and Caicos Islands	A partial aerodrome certification/licensing system is in place, which will be replaced by new regulatory powers and systems including aerodrome certification.	2003	

¹ CARICOM member States of Regional Aviation Safety Oversight System (RASOS) have approved the establishment of an Aerodrome Certification Working Group (AC/WG) to provide support to States for aerodrome certification to be implemented by November 2003 and prepare for ICAO USOAP Aerodromes audits to commence in February 2004.

Agenda Item 3: AIS/MAP Developments

3.1 The Secretariat presented WP/06, which addressed AIS lack of implementation in the following areas:

- AIS/MAP Quality Assurance System implementation;
- AIS/MAP Integrated Automated System implementation;
- WGS-84 implementation, survey, calculation, publication and integration; and
- AIP format, completeness, accuracy and currency.

3.2 The Meeting also noted the lack of response by States/Territories to C/CAR/WG Decisions 2/16 and 2/17. The Meeting decided to establish an AIS Ad hoc Group with Cayman Islands, Netherlands Antilles, IFALPA and ICAO in order to review AIS matters, deficiencies and shortcomings encountered by the States of the Central Caribbean area and to propose an Action Plan for their resolution.

3.3 The Group reviewed AIS/MAP issues common to many C/CAR States/Territories in the area. General problems that contribute to the incomplete implementation of AIS systems and provisions in many States/Territories in the C/CAR include the following:

1. Insufficient awareness of AIS/MAP requirements by DCA management
2. Insufficient recognition of AIS/MAP importance by DCA management
3. Insufficient internal communication with AIS/MAP units in DCAs
4. Insufficient information & briefing of AIS/MAP units by DCA management
5. Insufficient funds budgeted and allocated for the AIS/MAP units
6. Insufficient personnel
7. Insufficient training of personnel
8. Insufficient training courses in the region
9. Insufficient attendance of AIS/MAP meetings
10. Insufficient specific guidance material on AIS/MAP systems implementation
11. Insufficient knowledge and sharing of AIS/MAP systems implementation experience between States

3.4 Cuba informed the Meeting of having completed full implementation of WGS-84, AIS QA and AIS/MAP Automation in that State.

WGS-84 implementation and follow-up to the WGS-84 inventory questionnaire

3.5 The Meeting was of the opinion that many States/Territories/International Organizations have not fully implemented the WGS-84 system primarily due to a lack of sufficient funds. Airports have not included the surrounding obstacles in the surveys nor have provided the DCAs with the data if a survey was done. In some States/Territories, personnel who are involved with AIS are not sufficiently trained, or informed regarding the implementation of the WGS-84. In most cases the WGS-84 questionnaire has not been filled out. The required information is not relayed in time to the AIS units for processing. Even if corrective action has been taken, the information is not passed on. As for the

published coordinates of some boundary points, there are discrepancies between the adjacent States/Territories/International Organizations sharing the same boundary points.

Implementation of the AIS/MAP Automated Integrated and Quality Assurance Systems

3.6 Most States/Territories/International Organizations have not implemented the AIS/MAP Automated Integrated and QA Systems yet due to a lack of funds, tools and/or adequate training.

Other AIS/MAP-related matters.

3.7 Not all States/Territories/International Organizations have implemented the Integrated Aeronautical Information Package. The AIP is not in a standard electronic format, which leads to States/Territories/International Organizations applying different formats. The fact that they have not completed their WGS-84 Survey does not mean that States cannot issue the AIP in the new format. States have the option to publish the new formatted AIP with a note indicating that the coordinates do not comply with the WGS-84 system.

3.8 The Meeting agreed upon the need that ICAO should encourage States/Territories to formulate an Action Plan for resolving each of the regional Air Navigation deficiencies in the AIS field and submit copies to the ICAO Regional Office in accordance with NACC/DCA Conclusion 1/20 and GREPECAS Conclusion 11/55.

3.9 The Civil Aviation Authorities commitments in the AIS field should be delegated in a timely manner to the respective officials responsible for aeronautical information services to avoid unnecessary compliance delays.

3.10 The Meeting recalled the need that airports submit their up to date aerodrome and obstacle charts to their respective AIS unit for timely publication and distribution.

3.11 A regional training program should be expanded in cooperation with ICAO to train AIS/MAP personnel who are directly involved with the implementation of the WGS-84, AIS QA and AIS automation systems as well as the AIS/MAP in general. The Meeting therefore adopted the following Draft Conclusion:

DRAFT

CONCLUSION 3/1 ICAO REGIONAL AIS/MAP TRAINING

That, ICAO consider increasing the number of ICAO regional educational events conducted in the AIS/MAP field in the CAR Region.

3.12 The Meeting recommended that ICAO should again request all C/CAR States/Territories to complete and submit the WGS-84 inventory questionnaire and emphasize the importance to comply and the Meeting therefore adopted the following Draft Conclusion.

DRAFT

CONCLUSION 3/2 SURVEY INVENTORY QUESTIONNAIRE ON THE STATUS OF IMPLEMENTATION OF THE WGS-84

That the Central Caribbean States/Territories are urged to complete the Survey Inventory Questionnaire on the status of the WGS-84 implementation and to submit it to the ICAO NACC Regional Office by 30 June 2003.

3.13 Presently the AIP integrated model is annexed to the printed AIS Manual (Doc 8126). The group suggested that ICAO make this model available electronically to States/Territories for practical purposes and therefore agreed upon the following Draft Conclusion:

DRAFT

CONCLUSION 3/3 ICAO AIP MODEL IN ELECTRONIC FORMAT

That, ICAO be urged to consider the possibility of sending an electronic version (word processing or spreadsheet software) of the AIP Model (Appendix of Doc 8126) to States/ Territories by April 30th 2003, with a view to using it as a basis for the development of their respective AIP in new format.

3.14 In order to effectively address the fundamental problems that contribute to the incomplete implementation of AIS systems and provisions, the Group formulated the following Draft Conclusion:

DRAFT

CONCLUSION 3/4 FULL IMPLEMENTATION OF AIS/MAP SERVICES PRIOR TO ICAO USOAP ATS & AGA AUDITS

That, given the direct impact of complete, accurate and timely availability of AIS/MAP information in the required format, including WGS-84 coordinates, on the safety of aircraft operations, States/Territories shall complete full implementation of AIS/MAP Quality Assurance and Automation systems, including the Integrated Aeronautical Information Package, in preparation for the ICAO USOAP ATS and Aerodromes audits that are scheduled to commence in February 2004.

3.15 A status report on WGS-84 implementation, based on the information provided by the States/Territories at regional meetings and in response to an ICAO implementation follow-up letter sent to States/Territories, was reviewed. The revised status report on WGS-84 implementation is included in the **Appendix** to this part of the report.

3.16 The Meeting was informed of the ICAO CAR/SAM AIS Quality Assurance Seminar planned to be held in October 2003, subject to a State/Territory offering to host the event. The Meeting was also informed of the ongoing GREPECAS AIS/MAP/SG task of preparing AIS QA guidance material expected to be available to States/Territories by the end of 2003.

APPENDIX

STATUS OF IMPLEMENTATION OF WGS-84/ESTADO DE IMPLANTACIÓN DEL WGS-84

STATE / ESTADO	Fully implemented/ Totalmente implantado	Partially implemented/ Parcialmente Implantado*	Remarks/ Comentarios
1	2	3	4
Aruba		●	3
Bahamas		●	4
Cayman Islands Islas Caimanes	●		2
Cuba	●		7
Dominican Republic República Dominicana		●	1
Haiti		●	6
Jamaica		●	5
Netherlands Antilles Antillas Neerlandesas		●	3
Turks and Caicos Islands Islas Turcas y Caicos	●		
United States Estados Unidos	●		

1. There is a plan for surveying main aerodrome(s) navaids, obstacles and ATS fixes. No WGS-84 data published in AIP. Financial assistance could be required (ICAO - SIP)
- Hay un plan para levantamiento del(los) aeródromo(s) principal(es), ayudas para la navegación aérea, obstáculos y puntos de referencia ATS. Información WGS-84 no publicada en el AIP. Podría necesitarse ayuda financiera (SIP – OACI).
2. Survey completed for main aerodrome(s), navaids, and ATS fixes for all PIARCO aerodromes, results were published in new AIP edition. Coordinates for boundaries with PIARCO FIR require coordination among adjacent States/Territories.
- Levantamiento terminado para el(los) aeródromo(s) principal(es), ayudas para la navegación aérea y puntos de referencia ATS para todos los aeródromos PIARCO. Los resultados se publicaron en la nueva edición de la AIP. Las coordenadas para los límites con la FIR de PIARCO requieren coordinación entre los Estados/Territorios adyacentes.
3. NIMA Survey completed for aerodrome(s) but results to be published.
- Levantamiento NIMA terminado para los aeródromo(s), pero aún tienen que publicarse los resultados.

4. Survey completed for main aerodrome(s), navaids, and ATS fixes, coordinates were partially published in AIC's for RNAV procedures (ASAC project).
 - Levantamiento terminado para el(los) aeródromo(s) principal(es), ayudas para la navegación aérea y puntos de referencia ATS. Las coordenadas fueron parcialmente publicadas en AICS para procedimientos RNAV (proyecto ASAC).
 5. Survey completed for main aerodrome(s), navaids, and ATS fixes, results were published in new AIP edition. FIR Coordinates for boundaries require coordination with adjacent States/Territories.
 - Levantamiento terminado para el(los) aeródromo(s) principal(es), ayudas para la navegación aérea y puntos de referencia ATS. Los resultados fueron publicados en la nueva edición del AIP. Coordenadas limítrofes con la FIR requieren coordinación entre los Estados/Territorios adyacentes.
 6. Some surveys were started but prevailing situation in the State/Territory stopped the process. Financial assistance could be required (ICAO - SIP)
 - Se empezaron algunos levantamientos pero la situación prevaleciente en el Estado/Territorio frenó el proceso. Podría necesitarse ayuda financiera (SIP – OACI).
 7. FIR boundary Coordinates require coordination with adjacent States/Territories.
 - Coordenadas limítrofes con la FIR requieren coordinación entre los Estados/Territorios adyacentes.
- * **Note: For column 3 no obstacles were surveyed**
- * **Nota: Para la columna 3 no se hizo levantamiento de obstáculos.**

Agenda Item 4: ATM Developments

4.1 The Meeting established an Ad hoc Group to deal with ATM matters including representation of all States/Territories/International Organizations participating in the Meeting. Ms. Leslie Cary, United States, acted as Rapporteur.

4.2 The ATM Ad hoc Group took note of the information presented by the Secretariat in WP/07 on the Conclusions and Decisions in the ATM field adopted by the Eleventh Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS) held in Manaus, Brazil (December 2002) and the First North American, Central American and Caribbean Directors of Civil Aviation Meeting held in Grand Cayman, Cayman Islands (October, 2002).

4.3 Based on several working papers (from WP/11 to WP/15) presented by Haiti addressing a proposed ATS Route, RVSM Implementation, ATS Contingency Planning, Letters of Agreement and ATS Quality Assurance, the results of the Meeting on these matters are the following.

Air Space Management (ASM) matters

ATS Routes

4.4 The Meeting examined available information on the status of the following seven ATS routes proposed during the Second Central Caribbean Working Group Meeting (C/CAR WG/2), Petion Ville, Haiti, 18-22 February 2002.

- Panama City / San Juan, Puerto Rico
- Santiago de Cuba / Port-au-Prince
- Santiago de Cuba / Montego Bay
- Santiago de Cuba / Cap Haitien
- Cap Haitien / Puerto Plata
- Kingston / Great Inagua
- Cabo Codera / Miami (UL304)

4.5 The Meeting considered that the proposed route Santiago de Cuba / Cap Haitien was not feasible due to an airspace restriction surrounding the Guantanamo US military airport that the route would transit. The Meeting considered that this route segment should be withdrawn from consideration.

4.6 ATS route segment Cabo Codera / Miami (UL304) has been published with the exception of that segment within the Miami FIR where a conventional route exists. This item was considered as finalized.

4.7 ATS route segment Kingston / Great Inagua has been modified by the affected States so as to clear restricted airspace surrounding the Guantanamo US military airport. The new route trajectory is Kingston / BYGON / Great Inagua. Jamaica will submit a request to ICAO NACC Office to propose an amendment to the CAR/SAM ANP in order to include this route.

4.8 The remaining four ATS route segments are being coordinated between the affected States and IATA. The Meeting urged the ATS Task Force to complete the necessary coordination for these routes.

4.9 Haiti submitted a request to realign A315 between OBN and PJG, removing the bifurcation at CRO. The Meeting acknowledged the significant benefit that would be obtained by the users of this route, however only two of the three affected States were present to review the request. The Meeting noted that other ATS routes would be affected by the proposed realignment and that it was not possible to address these issues without the participation of the Dominican Republic. It was agreed that this route realignment would be added to the list of routes the ATS Routes Task Force will pursue.

4.10 Given the multitude of ATM matters to be studied further, even between C/CAR WG meetings, it was proposed to establish a new ATM Task Force, deactivating the ATS Routes Task Force that had been created during the First Meeting of the C/CAR Working Group meeting, and incorporating its tasks to the new ATM Task Force. The Terms of Reference and Work Programme of the ATM Task Force should be developed soon, to be adopted by the C/CAR WG/4 Meeting. Mr. Randolph Jones of Jamaica was elected as Rapporteur of the ATM Task Force. Therefore, the Meeting adopted the following Decision:

DECISION 3/5 C/CAR ATM TASK FORCE

A new C/CAR ATM Task Force is established, composed by members from Cayman Islands, Cuba, Haiti, Jamaica (Rapporteur), Netherlands Antilles and United States, deactivating the ATS routes Task Force and incorporating to the new Task Force created, the Work Programme of the deactivated Task Force.

RVSM implementation

4.11 The Meeting noted the relevant actions pertaining to RVSM implementation in the CAR/SAM Regions, which should be part of the Work Programme of the ATM Task Force. Among these are:

- RVSM will be implemented in a single phase from FL290 to FL410, inclusive, concurrent with the NAM Region on 20 January 2005;
- Points of contact from each State/Territory for ATS and aircraft and operator approval be supplied to ICAO NACC Office;
- ATC automated systems be evaluated for necessary modifications to accommodate RVSM;
- States/Territories conduct a flight level occupancy analysis for use in developing their national RVSM implementation plans; and
- States participate in a wide and committed manner in the RLA98/003 meetings/workshops.

4.12 The Meeting identified the points of contact of the present States/Territories for ATM matters, and agreed to propose a Draft Conclusion as follows:

	ATS	OPS/AIR
Cayman Islands -	Jeremy Jackson	Richard Smith
Cuba -	José Manuel Vega	TBD
Haiti -	Jacques Boursiquot	Joseph Laurent Dumas
Jamaica -	Patrick Stern	Howard McCalla
Netherlands Antilles -	Rolando Emers	S. Mercelina
United States -	Brian Throop	Robert Swain

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CONCLUSION 3/6 RVSM POINTS OF CONTACT

In support of GREPECAS Conclusions 11/26 and 11/27, that States/Territories of the Central Caribbean that have not yet done so, provide the points of contact for the ATS Service Provider and for the State Aircraft and Operator Approval Authority to the Rapporteur of the RVSM Task Force of the ATM Committee of the ATM/CNS Subgroup of GREPECAS through the ICAO NACC Office by 15 May 2003.

Civil/Military Coordination

4.13 The Meeting discussed the issues surrounding activation and coordination for W-1001 Area. During 2001, the United States changed the activation of W-1001 Area to a NOTAM system. Miami ARTCC is responsible for publishing the international NOTAM on behalf of the USN and verbally informs Havana ACC of the activation times and altitudes. Havana ACC, in turn, coordinates the information with Kingston and Port-au-Prince ACCs.

4.14 The affected States (Cuba, Jamaica, Haiti and United States) reported satisfaction with the current civil/ military coordination system for W-1001 Area. This issue was considered by the Meeting as finalized.

Air Traffic Services (ATS) matters:

Letters of Agreement among the Central Caribbean ACCs and units of the adjacent airspace

4.15 The Meeting took note of the sample Letter of Agreement (LOA) format drafted during C/CAR WG/2 in Petion Ville, Haiti, 18-22 February 2002. States/Territories remarked that when updating their bilateral Letters of Agreement, they should use the agreed format.

4.16 During a review of the LOA format, the Meeting noted that RVSM implementation will not require a significant change. Vertical separation is addressed within the existing format and will easily accommodate the necessary modifications for RVSM.

4.17 The Meeting also noted that Letters of Agreement between Venezuela and CAR States/Territories are significantly out of date. As a result, 10 minute and/or 80 NM RNAV longitudinal separation is not used between aircraft entering the Maiquetia FIR on ATS routes UL795, A516, G342, A300 and UL337, therefore penalizing the users and other ACCs and States. Consequently, the Meeting adopted the following Draft Conclusion:

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CONCLUSION 3/7 REVIEW OF ATS LETTERS OF AGREEMENT BETWEEN STATES/TERRITORIES AND VENEZUELA

That ICAO, on behalf of the CAR States/Territories, urge Venezuela to cooperate in the review, coordination and implementation of ATS Letters of Agreement between Maiquetia ACC and Curacao ACC and San Juan ACC to include use of 10-minute/80 NM separations.

ATS Contingency Plan for the Central Caribbean.

4.18 The Meeting discussed how to proceed with development of a regional ATS contingency plan. Cuba made a presentation and submitted a copy of its ATS contingency national plan, which describes elements ranging from partial communications failures to total operational failure. Based on the foregoing Cuba's Plan, the Meeting developed a draft template that other States/Territories could adapt for their national use. The Group might review the template, included as **Appendix** to this part of the report, in order to develop the Central Caribbean Contingency Plan. Moreover, it was agreed that States/Territories should develop or update their national plans and provide a copy to ICAO NACC by 27 November 2003.

ATS Quality Assurance Programmes

4.19 The Meeting discussed the progress made on developing ATS Quality Assurance Programmes within the Central Caribbean. Jamaica advised that they have attended the ICAO QA Workshop and had previously instituted a QA programme. Cuba advised that its process has been developed for the ATS QA programme and that it will be implemented concurrent with the full civil aviation QA programme. Cayman Islands advised that they have a draft QA document and are developing their programme. Haiti has some procedures in place and expects to have a QA programme in place by November 2003. Netherlands Antilles reported they have a regulation mandating the ATS Provider have an ATS QA programme; however, they are in the process of privatizing their ATS and as a result have temporarily put on hold development of a QA programme pending the aforementioned reorganization.

ATS incidents investigation.

4.20 The Meeting noted that States/Territories of the Central Caribbean are developing ATS incident investigation procedures in conjunction with their ATS QA programmes.

Other ATM matters.

Review of SSR Code Assignment System

4.21 Jamaica advised the Meeting of difficulties they are encountering with departures en route to the United States and the SSR code series assigned for the Kingston FIR. The CAR/SAM ANP allocates code series 5000 and 5100 to the Kingston FIR for international operations. Both of these code series are designated for other purposes in the Miami FIR, resulting in SSR code changes being duplicated and needed by Kingston, Havana or Miami Center. After studying the CAR/SAM ANP FASID SSR code series assignment table and the NAM SSR Code Allocation Plan, it was determined that there were few possible alternatives.

4.22 Cuba offered to exchange a code series with Jamaica. Havana FIR will use the 5100 series for international departures from Cuba, in view that they will not affect the Miami FIR. Kingston FIR would use the 6700 series for international flights. This solution proposal will be coordinated with the ICAO NACC Regional Office for its consideration and approval.

4.23 Additionally, Jamaica requested the United States analyze the possibility of accepting either code series 0600 or 0700 for northbound international flights. These code blocks are currently used by Kingston FIR for domestic operations. During the Meeting, United States expressed that it would evaluate the incidence of these proposals in its airspace and would inform its considerations as soon as possible. When editing this final summary of discussions, a communication of United States was received expressing that it approved the use of code series 6700 and 0700 from Havana FIR. ICAO NACC Office does not object to this provisional solution, and therefore, the corresponding amendment to the FASID SSR code assignment Table will be processed. A further analysis of the CAR/SAM and NAM Regions SSR code assignment systems might be necessary to resolve all the difficulties of the use of SSR code series.

4.24 Summarizing, the C/CAR Working Group has agreed to proposing the following amendments to the SSR code assignment table contained in Appendix B to Part V of the CAR/SAM ANP FASID:

- a) that the assignment of code series 6700 to Havana FIR be replaced by series 5100;
- b) that the assignment of code series 5100 to Kingston FIR be replaced by series 6700;
- c) that the “domestic use” by code series 700 assigned to the Kingston FIR be replaced by “international use”; and
- d) that the “international use” of code series 500 assigned to the Kingston FIR be replaced by “domestic use”.

4.25 The Meeting also discussed the need to review and modify the CAR/SAM and NAM SSR Code Assignment Plans as they affect other States/Territories in the Regions. Likewise, numerous conflicts are arising within and adjacent to the San Juan FIR as additional radar control services are established in the FIRs of the CAR Region.

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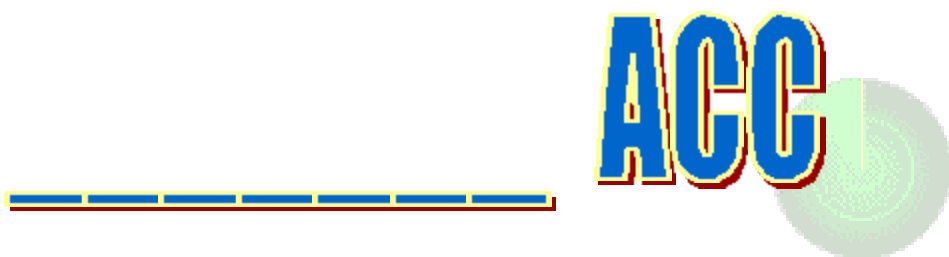
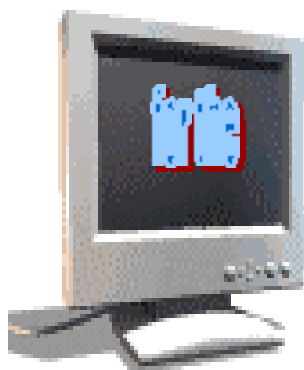
**CONCLUSION 3/8 REVIEW OF THE CAR/SAM AND NAM REGIONS SSR CODE
ASSIGNMENT SYSTEM**

The ICAO NACC and SAM Offices are urged to invite the States/Territories/International Organizations of the CAR/SAM Regions, to evaluate and consider the possibility of proposing an integral coordinated amendment to the SSR code assignment systems, with a view to resolving the problems and differences presented in the SSR code assignment systems used at the Houston Oceanic, Miami Oceanic and San Juan Oceanic airspaces with the SSR Code Assignment System established in the CAR/SAM ANP FASID for the rest of the FIRs of the CAR/SAM Regions.

APPENDIX



DRAFT CONTINGENCY PLAN



Approval: This Plan has been approved by the _____ Director of Civil Aviation.

Revisions/Tests: This Plan will be revised, simulated and tested at appropriate intervals and in conjunction with the relevant departments of the _____ and the _____ Air Traffic Control Center.

Amendments: Amendments made to this document shall be made available to the concerned parties no less than 72 hours from the time they go into effect.

Director's signature:

Effective Date:

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- Introduction
- 1. General
- 2. Ground Radiocommunications (AMS) Failure
- 3. Blocked Frequency
- 4. Unauthorized Use of ATC Frequencies
- 5. Communications Failure
- 6. Radar Systems Failure
- 7. Multiple Systems Failure
- 8. Total Failure
- 9. Navigational Systems Failure
- 10. Short-term Conflict Alert (STCA)
- 11. Emergency Separation
- 12. Procedures applicable to aircraft equipped with Airborne Collision Avoidance System (ACAS).
- 13. Procedures for Minimum Safe Altitude Warning System (MSAW)
- 14. Massive Sickness
- 15. Failures in the building

This Plan has been developed with the purpose of enumerating the contingency procedures that will allow for the continuation of national and international air traffic in case of a degradation of the different systems and/or air traffic control services within the _____ ACC.

The different circumstances present at each contingency situation prevent the establishment of exact procedures that will be applicable in each case. It is not intended by this plan to cover a 100% of specific situations. The main objective is to guide the air traffic controllers, supervisors and duty chiefs in the general procedures to be applied during contingency situations.

This plan will be activated during those times in which the _____ACC, the adjacent areas or entities lose their ability to effectively provide communications, navigation, surveillance and/or other services.

Tables have been designed for critical situations, in order to provide quick guidance for Duty Chiefs and Supervisors in making the corresponding decisions for each case.

This plan has been designed to ensure continuous navigation safety within the _____FIR and to minimize delays and other problems to the aircraft operators.

Duty Chiefs and Supervisors, under the supervision of the _____ ACC Operations Manager, are responsible for compliance with this plan, and will take any required actions and may add any other action necessary in those cases not covered in this plan or when emergency conditions so require.

1. GENERAL

- 1.1. Upon receiving information from a sector controller about a contingency, the Duty Chief will immediately proceed to activate the **“Contingency Advisory Plan”** and will send a Supervisor to the sector having the contingency, or will go personally, leaving a controller in charge of activating the Contingency Advisory.
- 1.2. Breaks will be cancelled at the sectors having a contingency, and at those sectors not in contingency situations for which the personnel in break may be needed to reinforce the activities related to the contingency that may be happening.
- 1.3. Once aware of the contingency situation, Duty Chiefs, Supervisors and controllers at _____ ACC will proceed in accordance with the tables prepared for each situation and by the instructions provided in this Contingency Plan.
- 1.4. Approach Control Offices and Control Towers designated as communications alternatives of the _____ ACC shall be familiar with the contents of this Plan and take action as required by the Plan.

2. Ground Radiocommunications (AMS) failure.

2.1. Failure determination.

- 2.1.1. Verify that the failure is not caused by malfunction of any sector component such as pedals, headset key, frequency selector, etc.
- 2.1.2. Determine if the failure is reception only, or two-way communication. For example, transmit in the blind to an aircraft within radio coverage and previously in contact with you, to change to the secondary frequency designated for your sector.
- 2.1.3. If it is determined that the failure is only on the receivers, and the secondary frequency is in service, act accordingly by asking the rest of the aircraft to change to that secondary frequency. Advise the Duty Chief, adjacent facilities and other areas, of the change of frequency and continue normal control.
- 2.1.4. If the failure is on the transmitter of the primary frequency, try to get an aircraft transferred to the secondary frequency assigned to your sector to verify it is working correctly.
- 2.1.5. Repeat the process stated above as necessary on frequency 121.5 assigned to your sector.
- 2.1.6. If it is functioning correctly, solicit the aircraft that has established contact to return to the sector primary frequency and make a transmission that the sector primary frequency transmitter is out of service and that all aircraft are required to change to the secondary frequency, or to the emergency frequency as may be required.
- 2.1.7. As soon as possible, advise the Supervisor, sectors and adjacent areas of the new frequency being utilized.
- 2.1.8. If the secondary frequency is also out of service, try to use the emergency frequency for the least amount of time possible, declaring the sector as a total failure.

2.2. Total failure.

- 2.2.1. Once determined that there is a total failure of the primary, secondary and emergency frequencies at the sector, declare your sector in **COMMUNICATIONS CONTINGENCY** advising the Duty Chief immediately and following the general established procedures.

2.3. General procedures.

- 2.3.1. The radar controller shall verify in the radarscope, which aircraft are in a climb or descent configuration and assure they are free of conflict during the following 10 minutes of their action.
- 2.3.2. The assistant controller will circle, in the flight progress strips, the identification of those aircraft that need to be transferred to the frequencies of other sectors or adjacent areas.
- 2.3.3. The assistant controller will advise the approach control or the airport control tower designed as alternatives in this Plan, the identification of those aircraft that need to be advised that their radar service is terminated and their frequency change instructions.
- 2.3.4. The radar controller will advise all aircraft on frequency, by means of another aircraft under the control of a different sector or adjacent area, of the communications failure at the sector and the requirement for all aircraft to change to the designated Approach or Tower frequency.
- 2.3.5. The assistant controller will advise the Approach or Tower Office of the ATC clearance for each aircraft immediately after coordination with the adjacent ACCs.

2.4. Separation Minima.

- 2.4.1. Aircraft within or about to enter the FIR, for which a handoff had been accepted, will maintain that separation until exiting the FIR or the sector's area of responsibility, keeping any unnecessary altitude changes to the minimum possible.
- 2.4.2. The radar controller will coordinate with adjacent sectors the acceptance of traffic under his/her control until that time, stating their last assigned altitude for which acknowledgement was received, regardless of if it had been previously coordinated or not.
- 2.4.3. The Supervisor will advise adjacent areas of a total failure of air/ground communications within a sector, canceling from that point forward all handoffs and requesting that all aircraft entering the FIR will do so with 10 minutes, or 80 miles RNAV longitudinal separation, and level by the entry point of the FIR and to include the frequency and name of the office to be contacted.
- 2.4.4. Flights that depart from national airports, overflights, or those whose destination is within the affected sector will be applied 5 minutes in trail separation regardless of flight level.
- 2.4.5. Depending on the weather conditions at the sector, military active areas that can not be cancelled, and navigational aids that may be out of service, the Duty Chief can modify the aircraft traffic flow to be accepted as 5 minutes or 40 miles between aircraft, regardless of altitude or entry point to the sector.

2.5. Alternative Routes.

- 2.5.1. When it is foreseen that the failure will extend over two hours, the Duty Chief can suggest to the _____, the use of emergency alternative routes established in this Plan for the different sectors.
- 2.5.2. The submission of all required notifications to the users will be processed with the Aeronautical Information Department and the coordination with the Operations Managers of the adjacent ACCs will be completed.
- 2.5.3. Notification to neighboring facilities will occur no less than 30 minutes before activation.
- 2.5.4. If the situation presented at the sector worsens, and the additional workload may impact the security of the flights, the Operations Manager may propose to their superiors the partial closing of the sector and the deviation of aircraft to other sectors.

2.6. Return to normal operations.

- 2.6.1. As soon as it is known that the affected frequencies are back to normal, the Supervisor will advise the controllers to test the affected frequencies, including primary, secondary and emergency frequencies.
- 2.6.2. Upon confirmation of the satisfactory state of the frequencies, the controllers will advise Approach and Tower facilities of the end of the contingency and will request that aircraft be advised to contact the sector on the primary frequency assigned, and if unable to establish contact, to return to Approach or Tower frequency.
- 2.6.3. After completing the above step, controllers will advise the Supervisor that they are ready to return to normal operations.
- 2.6.4. The Supervisor will first cancel the use of alternative routes; if they had been implemented, and will coordinate that within the next 15 minutes they will return to radar separation and the return to all normal operations.

3. Blocked Frequency

The following steps shall be followed if the transmitter of an aircraft has inadvertently blocked the control frequency:

- 3.1. Try to identify the aircraft blocking the frequency.
- 3.2. If the aircraft is identified, attempt to establish contact by use of emergency frequency, SELCAL, operations frequency, air-air pilot's use frequency (_____ MHz), or by any other communication means. If the aircraft is on the ground, attempt direct contact with the pilot through their Operations representative.
- 3.3. Once contact is established with the aircraft, advise them to change immediately from the transmitter frequency with problems, or to take any action necessary to stop the frequency block.
- 3.4. If the pilot wants to test the frequency, assign a secondary frequency not in use, to prevent blocking your primary frequency.

4. Unauthorized use of ATC frequencies.

The controller shall immediately follow the steps below when unauthorized or false transmissions occur in any of the _____ ACC frequencies.

- 4.1. Correct any false instructions.
- 4.2. Broadcast a message on the frequency, advising all aircraft of the receipt of false transmissions.
- 4.3. Advise your Supervisor immediately that your sector is experiencing **UNAUTHORIZED USE OF THE FREQUENCIES**.
- 4.4. The Supervisor shall immediately contact the Communications Unit Supervisor to try and locate the source of the transmission and request it be stopped.
- 4.5. Instruct all aircraft to verify all instructions or clearances received, prior to executing them.
- 4.6. Broadcast the following message twice on your frequency:
 - 4.6.1. ALL AIRCRAFT ON (frequency), FALSE CLEARANCE AND INSTRUCTIONS HAVE BEEN DETECTED ON THIS FREQUENCY, VERIFY ALL INSTRUCTIONS OR CLEARANCE BEFORE COMPLY, WITH _____ CENTER.**
- 4.7. If feasible, instruct all aircraft to change to the secondary frequency published by Jeppessen without stating that frequency.
- 4.8. Advise all aircraft when false transmissions or clearances have ended.

5. AFS communications failure

5.1. Determining the type of failure.

- 5.1.1. When a failure of the MEVA System occurs, the Supervisor will verify if the failure is just on that system or if it affects other systems, including AFTN.
- 5.1.2. Advise the controllers to verify if the emergency line with _____ ACC is working properly.
- 5.1.3. Verify if other direct lines with other ACCs are working properly, even if they are not part of the MEVA communications system.
- 5.1.4. Verify with the Communications Supervisor if it is possible to transfer the AFTN to the SITA system.
- 5.1.5. If the emergency line with _____ ACC is in service, all coordination shall be effected using that line.

5.2. Total Failure.

- 5.2.1. Once it is determined that there is a failure of the MEVA system, the ACC will be declared in **TOTAL COMMUNICATIONS CONTINGENCY** if it includes AFTN failure, or **PARTIAL** with AFTN in service, or with _____ ACC emergency line in service, or with both AFTN and _____ ACC emergency line in service.

- 5.2.2. If the failure includes the commercial telephones, a COMMUNICATIONS EMERGENCY will be declared.

5.3. General Procedures.

- 5.3.1. The radar controller shall verify in his/her radar scope those aircraft that are climbing or descending and ensure that they will reach and maintain the assigned altitude prior to the FIR exit point. Otherwise they will take appropriate action, including vectors, to prevent those aircraft from entering the adjacent FIR in a climb/descent configuration unless approval had been received from the adjacent ACC for that type operation.
- 5.3.2. The identification of those aircraft who need to be transferred to adjacent areas and whose handoff procedure had not been initiated shall be circled on the flight progress strips, so that the radar controller can instruct them to contact the adjacent facility and obtain altitude approval.
- 5.3.3. The Supervisor shall contact the adjacent ACCs by commercial telephone and advise them of the failure in place, cancel radar handoffs, and complete any pending coordination.
- 5.3.4. If the MEVA failure also affected AFTN, assign one or two additional controllers to the affected sectors based on traffic conditions, to enter flight plan information and prepare flight progress strips. Assign a controller exclusively to answer the commercial telephone if unable to do so personally.
- 5.3.5. If AFTN is working, an additional assistant controller will be assigned to those sectors with more traffic, to send and receive AFTN messages.
- 5.3.6. All aircraft will be advised to contact the adjacent facilities 10 minutes before the FIR boundary, and coordinate their boundary point estimate and altitude.
- 5.3.7. If the emergency line with _____ ACC is working properly, all flights to and from that ACC will be coordinated using this line, but radar handoffs will not be accepted.
- 5.3.8. If AFTN is working, all coordination shall be completed using that method and every attempt possible will be made to coordinate them through commercial telephone also.
- 5.3.9. These procedures will also be applicable when receiving information from any other adjacent ACC that they are having communication problems with their MEVA System.
- 5.3.10. Similar procedures shall be used if a failure occurs with other sectors, but limited to that sector.
- 5.3.11. In case of total communications failure, the Operations Manager will solicit from his superiors, five portable phones, normally assigned to the Communications Center for communications within the State, and the immediate activation of three cellular phones with international communication capability.

5.4. Separation Minima.

- 5.4.1. Advise the (adjacent ACC) Supervisor that even if communications are in place with them, due to the MEVA system failure and to prevent a workload increase to the controllers, from that time on, it is requested that all aircraft be assigned non radar separation of 10 minutes, or 80 NM RNAV, except those landing within the FIR.
- 5.4.2. It will be requested from the adjacent ACCs, by any means available, that from that time on, all aircraft at the same altitude shall be separated by 15 minutes (120NM RNAV). If the emergency line to the ACC is working, the separation to be applied to aircraft transiting to and from that ACC will be 10 minutes (80NM RNAV).
- 5.4.3. Radar separation will be applied to all national flights, if feasible, depending on sector traffic load and sector coordination.
- 5.4.4. If the MEVA failure is total (including AFTN and the _____ ACC emergency line) and extends beyond 30 minutes, the Duty Chief, taking into consideration traffic conditions and time of day, could apply traffic flow to adjacent facilities of 5 minutes (40 miles) between aircraft, regardless of altitude or entry point into the FIR.

5.5. Alternative Routes.

Alternative routes may be utilized, with the Supervisor's approval, if the general communication degradation is such that includes commercial and cellular telephones.

5.6. Return to normal operations.

- 5.6.1. Once notified that the MEVA system has returned to service, controllers will be required to test two-way communications at all sectors.
- 5.6.2. If the system continues to work properly for the next 10 minutes, and AFTN messages are being received, it is considered that the failure has ended.
- 5.6.3. Advise all ACCs when the contingency has ended and radar operations have returned to normal.

6. RADAR FAILURES.

Radar failures can occur due to the failure of the radar equipment itself, or failure of the system that transmits radar data, or due to software failure that affects the data servers, the sector PC, or a monitor failure.

Depending on the type of radar failure, it could affect part of a sector, all of the sector, or all the sectors in the ACC, therefore, it is very difficult to create guidelines to cover all instances and only general procedures, and specific situations for partial or total failures in a sector of the _____ ACC, are included in this document.

6.1. Failure verification.

- 6.1.1. When the radar system presents a malfunction, or when not satisfied with the radar presentation, the controller shall immediately advise the Supervisor, specifying the malfunction, or the area, or areas that ceased to receive radar signals.
- 6.1.2. Upon receipt of radar failure from a particular sector, the Supervisor, in conjunction with the Communications Supervisor shall determine the type of failure presented and the effects it will have over a period of time on the service provided.
- 6.1.3. When the radar failure indicates a partial or total loss in a particular sector, controllers shall apply the general procedures described in this Plan.

6.2. General procedures.

- 6.2.1. Controllers shall indicate on the flight progress strips those aircraft using minimum radar separation (____ mile separation) and those with less than 10 minutes at the same altitude.
- 6.2.2. They shall also indicate on the flight progress strip the aircraft that were climbing or descending and verify immediately the vacated altitude.
- 6.2.3. Radar controllers shall terminate radar service to the aircraft in the affected sector.
- 6.2.4. Radar controllers from the adjacent sectors and centers shall be notified of the radar failure, request if they can accept the aircraft about to enter their FIR at the altitudes previously coordinated, and act accordingly.

6.3. Separation minima.

- 6.3.1. If the failure present at the sector is only partial, apply the 10 minutes (80 NM RNAV) non-radar separation with the affected adjacent areas or sectors, and maintain radar separation and handoffs with the other sectors.
- 6.3.2. If the sector has a total radar failure, comply with item 6.2 above and apply 10 minutes (80 NM RNAV) separation to aircraft at the same flight level.
- 6.3.3. The Duty Chief will determine at which sector, or sectors, is necessary to apply flow control, based on meteorological conditions, active military areas that can not be canceled, and ground navigational equipment that is out of service. Separations minima could be increased to 15 minutes (120 NM RNAV), or as extreme measures, apply 40 NM or 5 minutes between aircraft regardless of altitude and entry point to the sector. This shall be coordinated with adjacent areas and sectors at least 30 minutes prior to going into effect.
- 6.3.4. In addition to 6.3.3 the Duty Chief may limit the number of aircraft departures landing or overflying the affected sector.

- 6.3.5. If there is a total radar failure in the _____ ACC, then an initial separation of 15 minutes (120 NM RNAV) shall be applied to aircraft at the same level.
- 6.3.6. All departures from national and international airports in the country will be limited to one every five minutes.
- 6.3.7. The Duty Chief may change the flow restrictions at each sector establishing a 40 mile or 5 minute separation between aircraft regardless of altitude and entry point to the sector, within the next 30 minutes of the total failure and 20 minutes after completing coordination with adjacent ACCs.
- 6.3.8. The Duty Chief will advise the Operations Manager to continue increasing the flow control from 5 to 10 and to 15 minutes, as safety control conditions continue to deteriorate.

6.4. Alternative routes.

- 6.4.1. If the total radar failure extends over six hours, the Duty Chief will advise the Operations Manager to use alternative emergency routes established for this situation that are included in the alternate tables of this Plan, in conjunction with the longitudinal separation being applied.
- 6.4.2. The Duty Chief shall coordinate that action, with the adjacent areas and sectors, no less than one hour prior to the procedure going into effect, sending the information previously by AFTN.

6.5. Return to normal operations.

- 6.5.1. When the radar system failure ends, the Supervisor will instruct the controllers to check the coverage area and advise him/her if satisfied with the signal presentation, and to, slowly, start returning the radar system to service within the FIR.
- 6.5.2. The Duty Chief shall advise the neighboring Centres of the FIRs of the return to radar service.

7. MULTIPLE SYSTEM FAILURES.

- 7.1. If there is a combination of failures to various systems, such as radar-radio, radar-communications, or radio-communications, but not total failure of all three of them at the same time, you shall comply with the procedures established in this Plan for each one of them; except that the Duty Chief may immediately establish flow control to a particular sector of 5 minutes between aircraft, regardless of altitude and entry point, based on the combination of failures, results, and time of the failure.
- 7.2. If the failure extends more than 30 minutes, the Duty Chief may increase the separation to 10 minutes between aircraft regardless of altitude and entry point to the sector.
- 7.3. If the multiple failures extend, or is expected to last more than 30 minutes, the Duty Chief shall advise the Operations Manager to use the alternative emergency routes in the affected sector or sectors.
- 7.4. The Operations Manager shall coordinate this action with the adjacent areas and sectors no less than 15 minutes prior to this action being in effect, sending the information previously by AFTN, or any available means.

8. TOTAL FAILURE

- 8.1. When a total failure of all the ATC systems occurs, the Duty Chief shall, if feasible, immediately advise the adjacent areas and ATS units, by any available means, of the failure; and will limit the entrance of aircraft to all ACC sectors, to one every 5 minutes, regardless of altitude and entry point, during the first half hour, and one every 10 minutes, regardless of altitude and entry point, during the second half hour.
- 8.2. Except for aircraft on departure roll, all national and international departures in the country shall be canceled, until flow control has been established for their operation.
- 8.3. Emergency alternative routes shall be in place at all sectors within 30 minutes of the total failure.
- 8.4. Controllers shall apply all general procedures indicated in this Plan to the extent possible, using mobile and cellular telephones, or any other means available at the ACC during the contingency.
- 8.5. If unable to determine how long the systems will be totally out, and if the VHF systems at the control tower of the _____ International Airport are in service, controllers will be sent to that location to start control operations.
- 8.6. As soon as communications are established with Approach Control Offices or Towers that are identified as contingency alternatives for the ACC, departures from all airports in the country will be re-established, limited to 5 minutes between aircraft, and flow of 5 minutes or 40 miles between aircraft regardless of altitude can be accepted.
- 8.7. Once contact is re-established with the ACC contingency entities, the Duty Chief will evaluate the new situation in order to cancel, or not, the alternative routes if they had been activated.
- 8.8. As the different systems come back in service, the Duty Chief and the Supervisor will follow the requirements of this Plan for each of the systems, canceling all the contingency measures taken previously and advising adjacent ATS units of it.

9. NAVIGATIONAL SYSTEMS FAILURE.

- 9.1. As equipment aboard aircraft has been improved in its navigation systems, making it less dependent on ground navigational aids to overfly successfully, and with the radar coverage within the _____ FIR or sector, the impact of a ground navigational aid that goes out of service is less, with the exception of those that are part of a landing instrument procedure.
- 9.2. If a Navigational Aid(s) that serves an instrument approach procedure goes out of service:
 - 9.2.1. And the failure occurs during daytime, advise the operators and pilots that airport operations will be held under visual conditions (VFR).
 - 9.2.2. If the failure occurs at night, advise the operators and pilots that the airport is closed.

10. SHORT-TERM CONFLICT ALERT SYSTEMS (STCA)

- 10.1. The conflict alert system is part of the radar data processing program. The objective of the system is to assist the controller in maintaining the required separation between controlled flights by generating a timely audible and visual alarm, as necessary, about the possible loss of separation minima.
- 10.2. Current and projected three-dimensional situations derived from radar of the aircraft with transponder equipment are evaluated in terms of the conflict alert function. If the distance between the three-dimensional planes of the two aircraft involved is projected to fall below the established minimum applicable during a specified time frame, an audible and visual alarm will be generated at the controller scope in which area of jurisdiction the affected aircraft are operating.
- 10.3. Controllers should be trained on the STCA function before it goes into effect, on all that is relative to acceptable flights, parameters, presentation mode, procedures to inhibit functions, etc.
- 10.4. If a conflict alert alarm (STCA) is generated, the controller shall immediately take corrective measures to ensure that minimum separation will not be lost.
- 10.5. Once the alarm is generated, the controller shall fill out an incident report if the minimum separation standards were lost.
- 10.6. Every time that a conflict alert alarm is generated, the Supervisor will fill out a report in the Daily Log and the corresponding investigation will be performed to determine if the alarm was justified or not.
- 10.7. It should be considered that aircraft providing their own separation (visual) might activate a conflict alert alarm (STCA).

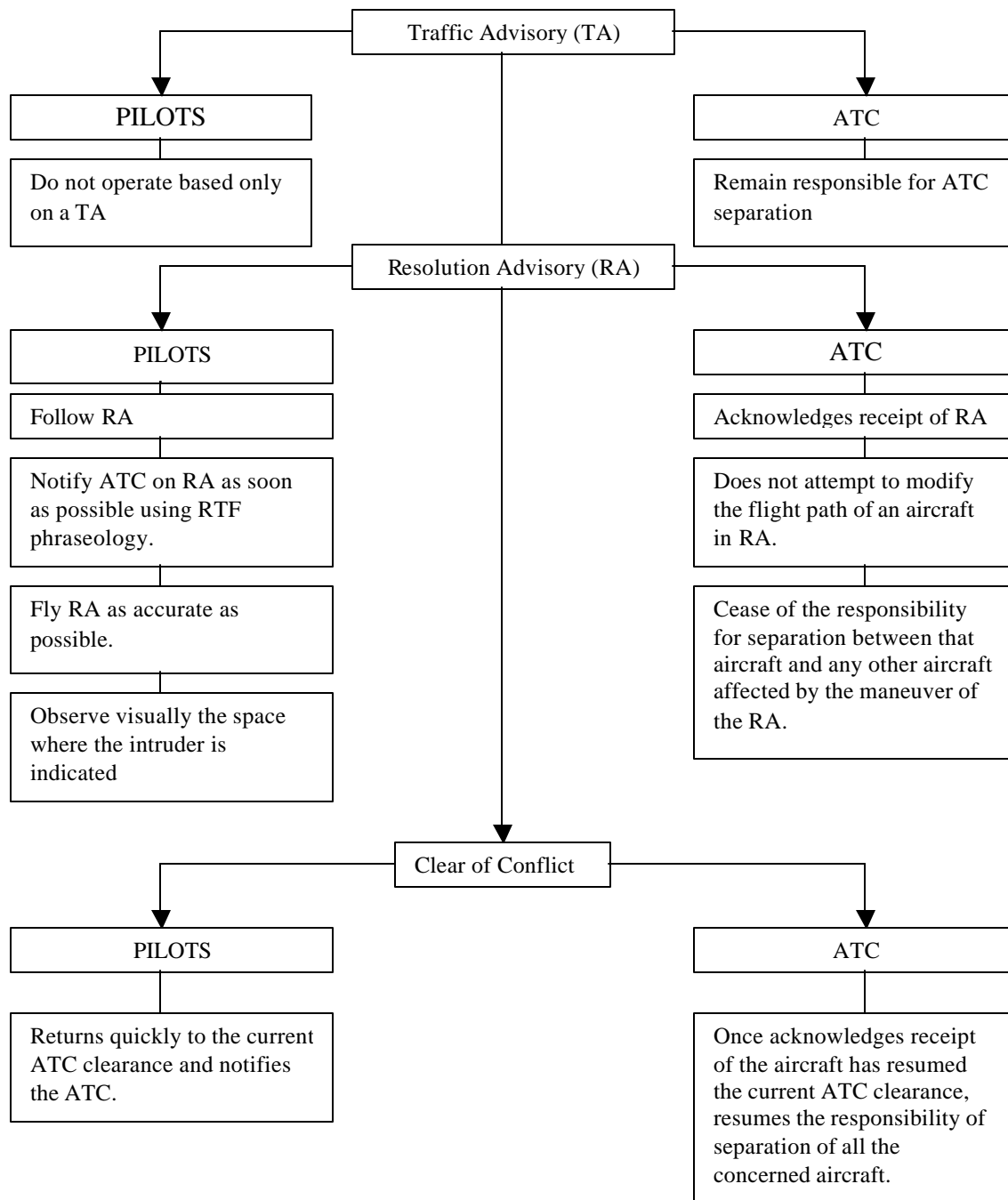
11. EMERGENCY SEPARATION

- 11.1. If it is not possible to maintain the required horizontal separation during an emergency situation, use an emergency separation of half of the required vertical separation, 500 feet between aircraft that require 1000 feet, and 1000 feet for aircraft that require 2000 feet between aircraft.
- 11.2. When applying this type of emergency separation, advise the pilot of the aircraft involved that emergency separation standards are in place and inform both aircraft of their essential traffic.

12. PROCEDURES APPLICABLE TO AIRCRAFT EQUIPPED WITH AIRBORNE COLLISION AVOIDANCE SYSTEMS (ACAS)

- 12.1. When a pilot notifies having taken action as a result of the ACAS (TCAS), do not change the aircraft flight path until receiving indication from the pilot that they are again in position to accept your clearances and control instructions, but provide traffic information if available.
- 12.2. When an aircraft leaves the clearance received to comply with ACAS (TCAS) instructions it is no longer under the controller's responsibility to provide separation between that aircraft and any other aircraft affected as a direct result of the maneuver received from the ACAS (TCAS) advisory.

- 12.3. The controller resumes the separation responsibilities for all aircraft affected when:
- 12.3.1. The controller acknowledges a pilot's report advising the aircraft has resumed the current clearance, or
 - 12.3.2. Receiving information that the aircraft is resuming the current clearance and an alternate clearance is issued and acknowledged.
- 12.4. Any time that an ACAS (TCAS) alert is generated the radar controller shall fill out an incident report.
- 12.5 Interaction between controllers and pilots during an ACAS (TCAS) incident,



13. PROCEDURES FOR THE MINIMUM SAFE ALTITUDE WARNING SYSTEM (MSAW)

- 13.1. The generation of a minimum safe altitude warning is a procedure of the ATC radar data processing. Its objective is to provide help in preventing accidents or impact to the ground without losing control, generating as necessary an advisory of a possible infraction to the minimum safe altitude.
- 13.2. In the MSAW function, the altitude level notified by the aircraft with Mode C transponders are monitored, comparing them with the defined minimum safe altitudes. When it is detected that the altitude of an aircraft is below the applicable minimum safe altitude, an audible and visual alarm is generated to the radar controller having jurisdiction of the aircraft.
- 13.3. The Controllers should be trained on the MSAW function before it goes into effect, on all that is relative to acceptable flights, parameters, presentation mode, procedures to inhibit functions, etc.
- 13.4. If an MSAW alarm is generated for a controlled flight, the following steps shall be followed:
 - 13.4.1. If the aircraft is being vectored, instructions will be given to climb immediately to the safe level applicable, and if necessary to prevent a collision with terrain, new radar vectors shall be issued.
 - 13.4.2. In any other case, the pilot shall be notified immediately that an MSAW alarm has been activated and instructions shall be given to verify the altitude of the aircraft.
- 13.5. After an MSAW incident, the sector controller shall fill out an incident report only when the minimum safe altitude was violated inadvertently and it was feasible for the aircraft to hit the ground without losing control.

14. MASSIVE SICKNESS

- 14.1. When the controllers of a particular shift are faced with a massive sickness of any type, the Duty Chief will apply the Advisory Plan for this contingency which states that for the team that is affected, he/she will try to locate a minimum number of controllers to take care of the shift while the next shift team is located.
- 14.2. The Supervisor, the Duty Chief or the controller that feels good, shall take appropriate action to ensure safety of flights by combining sectors, applying flow at the FIR entry points, applying flow control to departures, and canceling radar services.
- 14.3. As the controllers start arriving, the services will be restored as soon as possible, and the adjacent facilities will be advised of the situation and of the progress attained in restoring all services.

15. FAILURE IN THE BUILDING

- 15.1. Those activities in, or close, to the Control Room of the _____ ACC that could be a result of smoke, toxic gases, fire extinguisher activation, fire, aircraft or other vehicle impact to the outside of the building, or anything that requires taking urgent measures to ensure the lives of the controllers, technicians and other personnel inside the building is classified as a structural failure, and therefore, results in the considerable or total degradation of Air traffic Control Services at the _____ ACC.

- 15.2. When an alarm of that type occurs, you shall proceed calmly, and verify what is happening. Based on the findings, take appropriate measures with the traffic being controlled and proceed to evacuate the personnel.
- 15.3. In a situation like this, the Duty Chief shall direct the orderly evacuation of non-essential personnel and they shall walk by all buildings used for offices and technical work areas to ensure everyone is aware of the emergency situation.
- 15.4. Radar controllers shall proceed to close all airports in the country immediately, specifying the reasons.
- 15.5. The Duty Chief and the Supervisor shall advise all FIRs immediately, if feasible, that the airspace in _____ FIR is closed. Otherwise they will do this by using a cellular phone from outside the facility.
- 15.6. The radar controllers will try to terminate radar service to those aircraft on vectors for separation, or will broadcast that there is a contingency and all aircraft shall resume their own navigation.
- 15.7. Radar controllers will try to broadcast twice in all frequencies that the _____ airspace is closed due to a contingency in the building.
- 15.8. All necessary measures will be taken to reopen the _____ FIR, initiating control from other airport installations, and if necessary, sending controllers to other points in the country, so operations can be returned to service from those airports with the maximum safety concerns.
- 15.9. The _____ Aeronautical Authorities will inform the ICAO regional office of the emergency and the progress in resuming operations in the _____ FIR.

THIRD CENTRAL CARIBBEAN WORKING GROUP MEETING (C/CAR WG/3)
SUMMARY OF DISCUSSIONS
APPENDIX TO AGENDA ITEM 4

4A-18

Attachment A

**CONTINGENCY OFFICES IN CASE OF
RADIOCOMMUNICATION FAILURE**

SECTOR	NAME OF THE OFFICE	FREQUENCY
A	<u> </u> APPROACH	
B	<u> </u> APPROACH	
C	<u> </u> APPROACH	
D	<u> </u> APPROACH	
E	<u> </u> TOWER	

THIRD CENTRAL CARIBBEAN WORKING GROUP MEETING (C/CAR WG/3)
SUMMARY OF DISCUSSIONS
APPENDIX TO AGENDA ITEM 4

4A-19

Attachment B

POINTS OF CONTACT

Name and Title	Telephones	Movitel	Cellular	Fax	E-mail
Team Supervisor					
_____ ACC Chief					
_____ ACC Operations Manager.					

Add copy of Rad Comm and manual Plotting in case AFTN fails.



INTRODUCTION

The ATC Contingency Plan is prepared with the objective of detailing the action to be taken to continue the following of domestic and international air traffic in case of a degradation of the different ATC services and systems.

It is not intended to include in a contingency plan a hundred percent of the situations that may occur. The main objective is to guide air traffic controllers, Supervisors and controllers in charge, in the general procedures that can be applied during contingency situations.

Numerous outages may be found within the ATS systems, either individually or combined with others, which could adversely affect air traffic control as a whole. For that reason, any Contingency Plan should include all those more frequently encountered.

SYSTEM OUTAGES

- Ground Radiocommunication equipment failures
- Blocked frequencies
- Non-authorized use of ATC frequencies
- Communications failures
- Radar systems failures
- Combined failure of different systems
- Total failure
- Ground Navigation Systems failures

SYSTEM OUTAGES

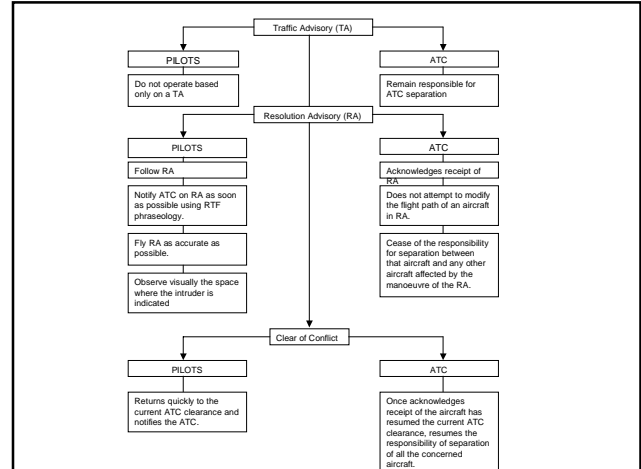
- Short-term Conflict Alert reports (STCA)
- Emergency separation
- Procedures applicable to aircraft equipped with airborne collision avoidance systems (ACAS/TCAS)
- Procedures for the use of Minimum Safe Altitude Warning Systems (MSAW)
- Massive sickness
- Structural Deficiencies/Failures (buildings)

For each type of contingency, the following points should be included:

- General procedures.
- Failure determination.
- Declaration/notification of the contingency.
- Immediate notification to affected facilities.
- Alternative procedures to be used, if available .
- Minimum separation standards to be used
- Alternative contingency routes.
- Return to normal operations.

Controllers, supervisors and duty chiefs should have very well defined tables with ways to proceed in each case, alternatives at each sector, alternate means of communications, and other information.

Controllers should have permanent guides/tables, for example: procedures to be used for ACAS (TCAS) contingencies.



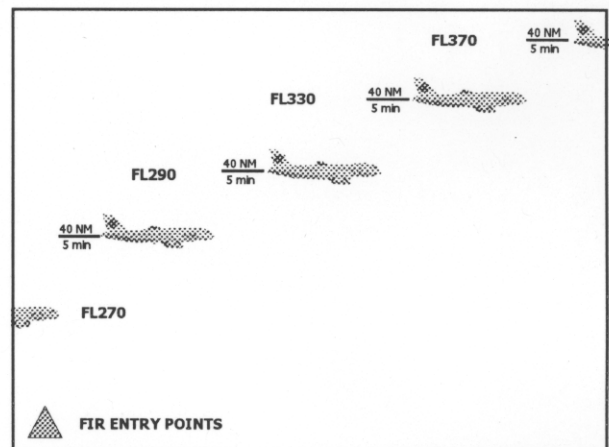
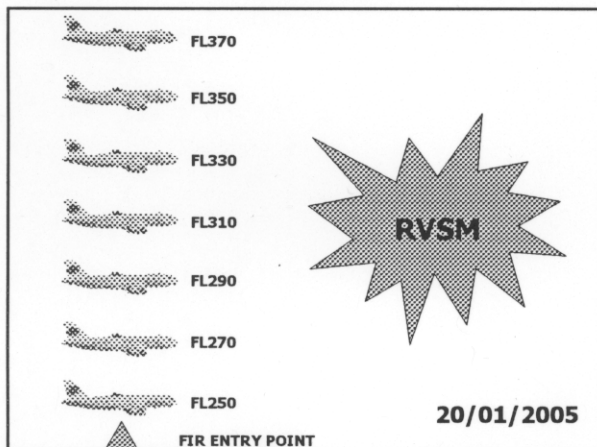
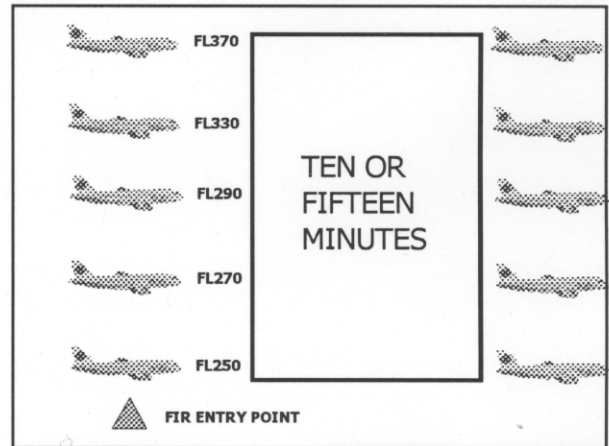
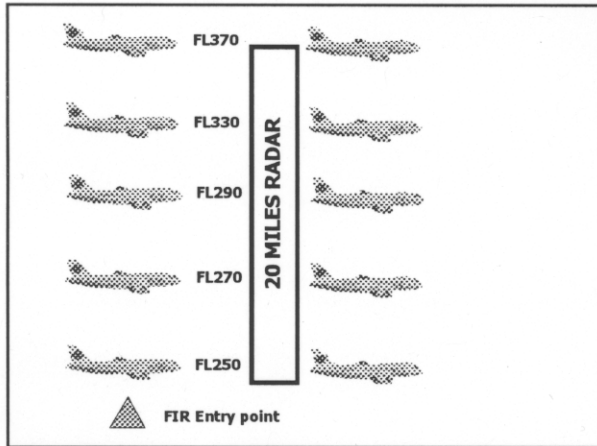
Supervisors and Duty Chiefs should take into consideration the existing situations at the time of the contingency, the time of the year and time of day, military active areas, meteorological conditions and any other item that may affect the safety of flights, in order to immediately apply traffic flow restrictions.

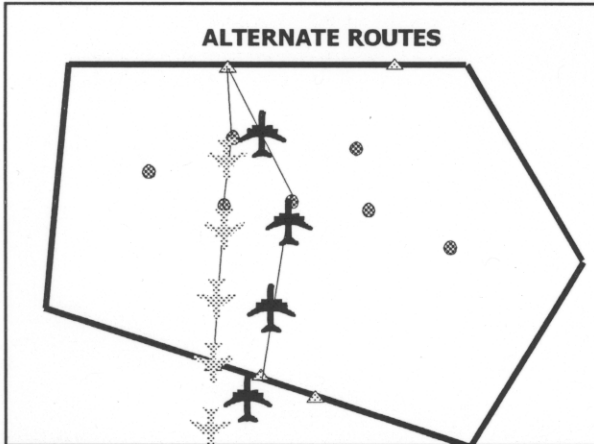
Not always, the application of radar procedures will ensure the safety of flights. It should also be taken into consideration the great volume of traffic being handled these days.

Lets take for example, the following situation of a radar area transitioning from radar to non radar separation.

Third Central Caribbean Working Group Meeting (C/CAR WG/3)
Summary of Discussions
Appendix to Agenda Item 4

4A-23





The Sharing of the Contingency Plans between all units within the same area or region will unite all efforts to maintain the standards of safety expected by the users, independent of the degradation of ATS systems.

For the safety of the Caribbean Skies



Agenda Item 5: CNS Developments

5.1 To provide assistance for the review of this agenda item, the Meeting activated a CNS Ad-hoc Group with the participation of the members of Cuba, Haiti, Jamaica, Netherlands Antilles, United States and IFATCA. The Rapporteur functions were carried out by Mr. Franck St. Juste from Haiti, assisted by Ms. Dulce Roses, from United States. The results of the work of this Ad hoc Group reviewed by the Meeting as a Whole are the following.

General

Support for the ICAO position at the ITU WRC-2003

5.2 The Meeting insisted on the importance and urgent need for the participation of the States at the level of the aeronautical authorities or at the level of the authorities in charge of the frequency spectrum at the WRC-2003, to support the ICAO position at that Conference, which is to defend and preserve the frequency spectrum required for the operation and development of civil aviation.

5.3 The Secretariat of the Meeting informed the Group that soon a letter would be sent to the States advising of some amendments in the ICAO position at the WRC-2003 based on the recent results of the work of the ANCP panel and its consideration by the Air Navigation Commission. The proper authorities in charge of defending the aeronautical frequency spectrum are urged to take into consideration these amendments.

Review of the FASID CNS Tables

5.4 The Secretariat of the Group informed the Meeting that prior to holding this Meeting, the ICAO Regional Office had not received up-to-date information from the States/Territories/International Organizations with proposals to update Tables CNS 2A and CNS 2B. Therefore, it was agreed that CNS tables CNS 2A and CNS 3 would be left unchanged. The member from Cuba informed the Meeting on the plans of his State to implement a mono-pulse secondary radar in his State soon. Likewise, the Representative from the Netherlands Antilles informed the meeting of the successful implementation of a primary radar and secondary radar in Curaçao. The Member of Jamaica also informed that the total implementation of Jamaica's radar control service, based on new radar facilities, would be finalized in December 2003.

5.5 Additionally, the Meeting agreed to recommend that States/Territories/International Organizations be reminded that available information should be submitted to the ICAO Regional Office by 28 November 2003 in order to update table CNS4A. To this end, the following Draft Conclusion was formulated by the Meeting:

DRAFT

CONCLUSION 3/9 FASID CNS 4A TABLE UPDATE

That, in order to update the FASID CNS 4A table, States/Territories/International Organizations should send information related to the update of their primary and secondary radar facilities to the ICAO Regional Office no later than November 28, 2003.

5.6 Taking into consideration the result of the discussion under agenda item 1, where two CNS scenarios were created in the C/CAR area, it was further clarified that this does not entail the creation of additional working groups. This is only for the purpose of facilitating the study of the improvement and implementation of CNS systems as part of the work within the C/CAR Working Group.

Communications

Improvement of VHF AMS coverage

5.7 Under this agenda item, the Group was informed by the Secretariat that information on VHF AMS stations was received in the ICAO Regional Office from: Aruba, Cayman Islands, Cuba, Dominican Republic, Haiti, Jamaica and Turks and Caicos Islands. Additionally, during the Meeting Cuba and Jamaica provided graphical information representing their respective air-ground communications coverage. These coverage diagrams are depicted in **Appendices A and B** respectively.

5.8 The Meeting also noted information provided by the Secretariat, indicating that COCESNA was installing a VHF station on Cisne Island, Honduras. This would improve the coverage towards the Northern portion of the CENAMER FIR. The Meeting was also informed of the fact that Cuba, Mexico and United States are working towards a solution to the partial lack of coverage in the Gulf of Mexico.

5.9 The Member from Netherlands Antilles reported that the communication deficiency which previously existed to the North Western part of Curacao FIR has been resolved by the implementation of high power (200 watts) transmitters equipments and 16 db gain antennas, which were already operational.

5.10 Also, the Member from Jamaica informed that in order to improve coverage of the North-Western and Eastern sectors of the Kingston FIR, additional VHF Stations had been installed in Jamaica and a remote station in Grand Cayman. **Appendix C** shows the coverage of these stations.

5.11 The Meeting also highlighted and appreciated the examples of international cooperation carried out to improve the VHF coverage in the Central Caribbean.

5.12 Taking into account the considerations expressed in the paragraphs above, the Meeting formulated the following Draft Conclusion:

DRAFT

CONCLUSION 3/10

**COMPLEMENTARY ACTIONS FOR THE IMPROVEMENT OF
VHF/AMS COVERAGE IN THE CENTRAL CARIBBEAN**

That, in order to comply with GREPECAS Conclusion 10/29, States/Territories/International Organizations should send information related to their VHF/AMS Stations, and also graphical information regarding their VHF air-ground communications coverage to the ICAO NACC Office no later than May 15, 2003.

Review of the status of AFS communications

5.13 The Group studied the importance and the need to continue the efforts for the transition from AFTN to AMHS in order to improve the exchange of air navigation digital information among facilities. The importance of transitioning from the existing Central Caribbean MEVA SCPC DAMA network to a MEVAII TDMA/Frame Relay digital platform to facilitate the implementation of AMHS and other aeronautical circuits was therefore highlighted to the Meeting.

5.14 The Meeting recommended to Netherlands Antilles and Venezuela to study the possibility of improving the AFTN circuit between Curacao and Caracas in a bilateral manner, as well as to consider the possibility of proposing its inclusion among the requirements established in the FASID.

5.15 The Member of Netherlands Antilles informed the Meeting that the Direct Speech Circuit Curaçao ACC-Baranquilla ACC was discontinued because of rupture of the terminal equipment of Curaçao and the impossibility of replacing it. The aforementioned centers are currently using international public telephone service for ATS communications. The Meeting recommended that Netherlands Antilles and Colombia examine and agree upon the appropriate measures to solve this deficiency, including the evaluation of the proposal formulated by the Colombian authorities in October 2001 on the possibility of installing a VSAT terminal with end equipment in Curacao, to facilitate the re-implementation of the Baranquilla-Curacao ATS speech circuit.

5.16 The Meeting also considered that, as a future stage, inter and intra-regional interconnections of the digital communication networks should be implemented. In this regard, efforts should continue for the interconnectivity of the MEVA network and other regional digital networks, namely REDDIG, the Eastern Caribbean Digital Network, and the Central American CAMSAT Network through an open network environment.

Implementation of ATN ground portion

5.17 The Meeting recalled that during the Second meeting of the ATM/CNS Subgroup held in Rio de Janeiro (September 2002), the ATN Task Force was created to review the existing CAR/SAM ATN transition plan. The meeting was informed that the first meeting of the ATN Task Force would be held in Miami from April 22nd to the 24th. The Group concurred that, because of the importance of the meeting, ICAO should send a letter to the States/Territories/International Organizations inviting them to participate at the above mentioned meeting. Consequently, the following Draft Conclusion was formulated by the Meeting:

DRAFT

CONCLUSION 3/11 IMPLEMENTATION OF ATN GROUND PORTION

That, ICAO urge the States/Territories/International Organizations to support the first ATN task force meeting and encouraging them to participate.

5.18 The Meeting also agreed that the action identified under the C/CAR WG/2 Meeting Conclusion 2/11 should be considered as replaced by the tasks assigned to the ATN Task Force of GREPECAS ATM/CNS Subgroup.

Navigation

GNSS implementation

5.19 In accordance with the C/CAR/DCA/5 Meeting Conclusion 5/19 and GREPECAS Conclusion 10/32, the Meeting agreed that the States/Territories/International Organizations should continue publishing and updating the legislations/regulations authorizing the use of GNSS at their respective terminal area and en-route airspace.

Follow-up to the SBAS Augmentation Systems trials

5.20 The Meeting agreed that in accordance with conclusion 5/19 of the C/CAR/DCA/5 and GREPECAS Conclusion 10/32 it is important that States/Territories/International Organizations keep abreast of the status and results of the SBAS/WAAS augmentation systems trials being held in the CAR/SAM Regions under the RLA/00/009 Project; the SBAS/EGNOS trials, which are initiating in the CAR/SAM Regions under the RLA/03/902 Project and the global and regional development of GNSS implementation.

Surveillance

Follow-up to the C/CAR Radar Surveillance Plan

5.21 While reviewing this agenda item, the Meeting realized that the last time table CNS4A was updated was in 1999. Therefore, it was agreed that it was most important to update the table in order to take into account new radar facilities and to plan radar data exchange. Based on this, the Meeting ratified the need and importance to calculate the radar coverage diagram in order to identify the areas with lack of radar coverage and to determine the feasible radar data exchange areas. It was noted by the Meeting that, once these areas are identified, it would also help to plan ADS implementation in the future. The Members of Cuba and Jamaica submitted to the Meeting the coverage diagrams of their respective radars, which are shown in **Appendices D** and **E** respectively.

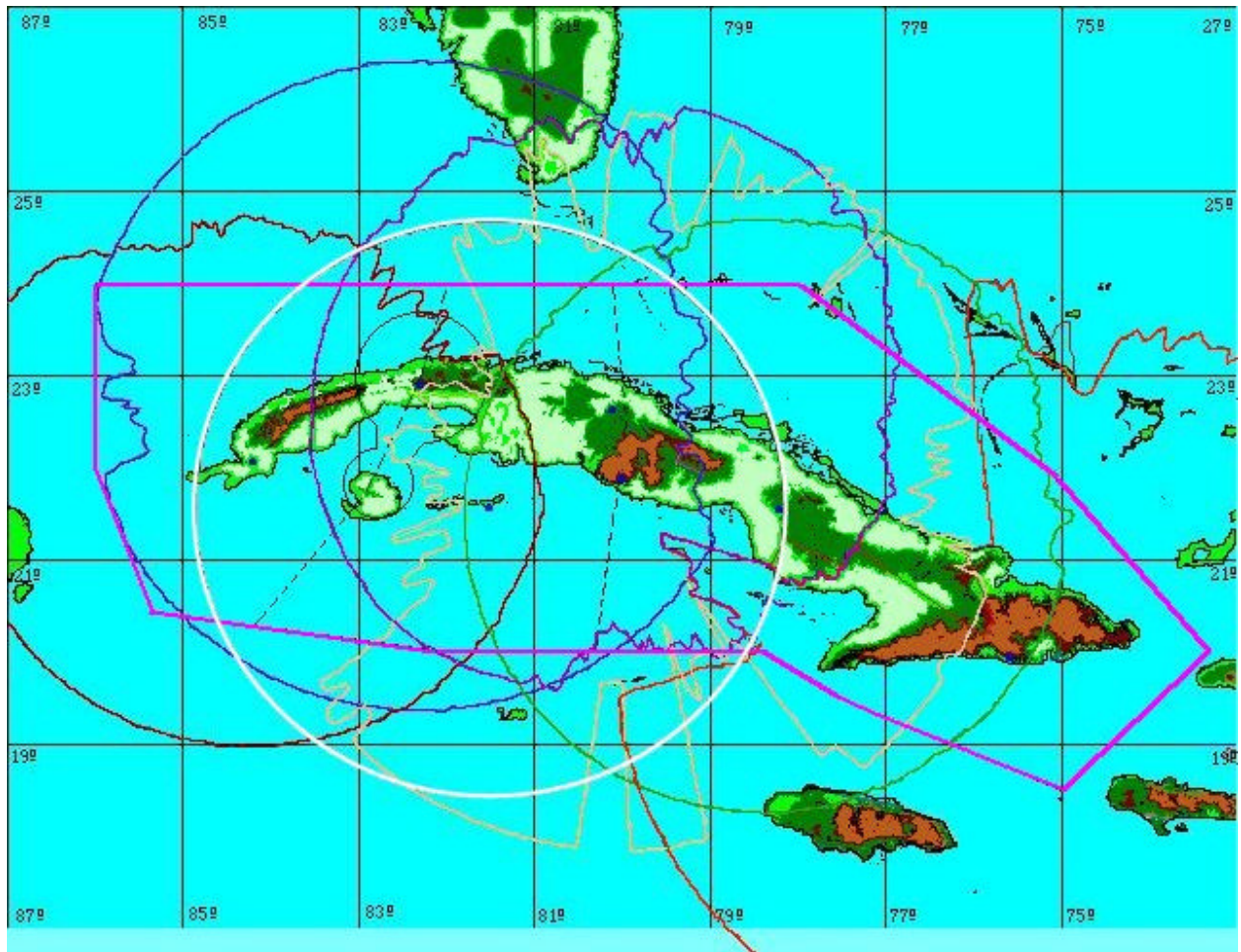
Implementation of radar data exchange

5.22 Regarding the implementation of radar data exchange, and in accordance with the C/CAR/DCA/5 Meeting Conclusion 5/20 and bearing in mind the “*Reviewed Regional Guidelines for the Exchange of Radar Data among ATM units*” issued by GREPECAS, through Conclusion 11/47, the States/Territories/International Organizations and the C/CAR Working Group, supported by its Radar

Data Sharing Task Force, should continue its work on the planning and implementation of radar data exchange among ATM units in the Central Caribbean. The Meeting also reviewed the Terms of Reference and Work Programme of the Sharing of Radar Data Task Force, and the results as shown in **Appendix F** to this part of the report. The Meeting also agreed that this Task Force should continue its work in a diligent manner in order to support the implementation of ATM in general. The Meeting took note of information provided by United States, stating their full support to the project. However, due to lack of resources, United States are not able to provide information at this time.

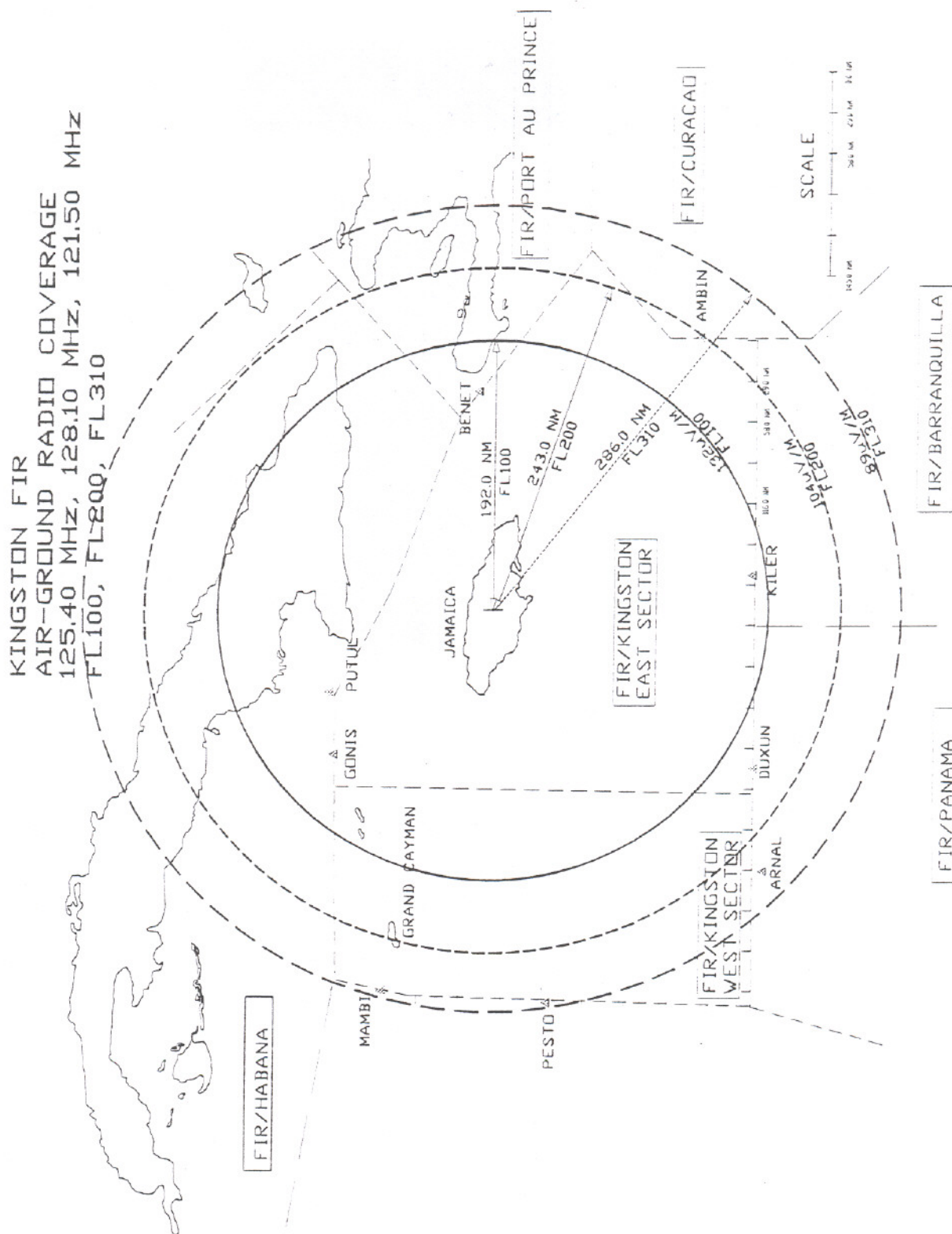
APPENDIX A

CUBA'S FL200 AIR-GROUND COMMUNICATIONS COVERAGE



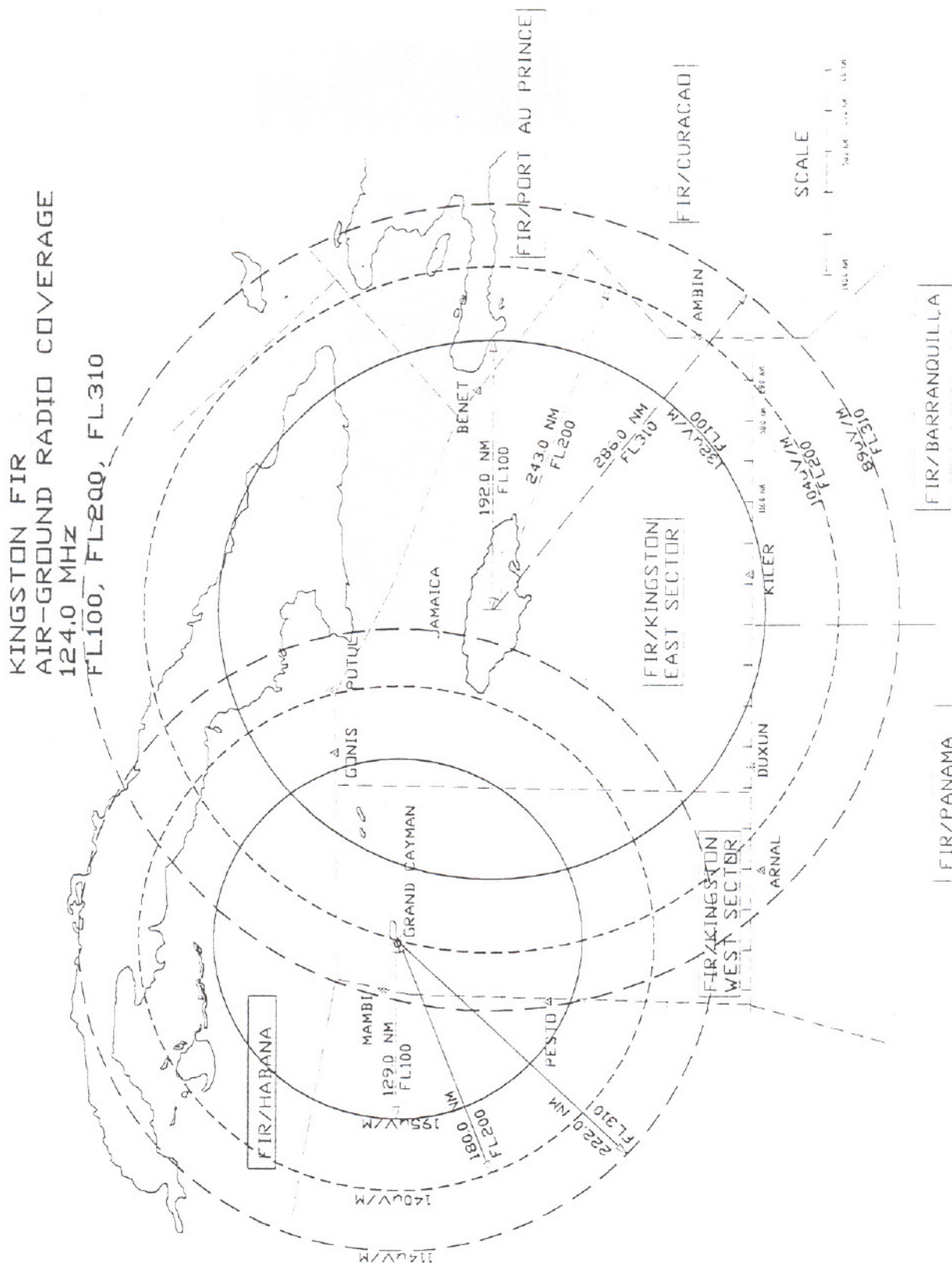
APPENDIX B

AIR-GROUND COMMUNICATIONS COVERAGE OF JAMAICA



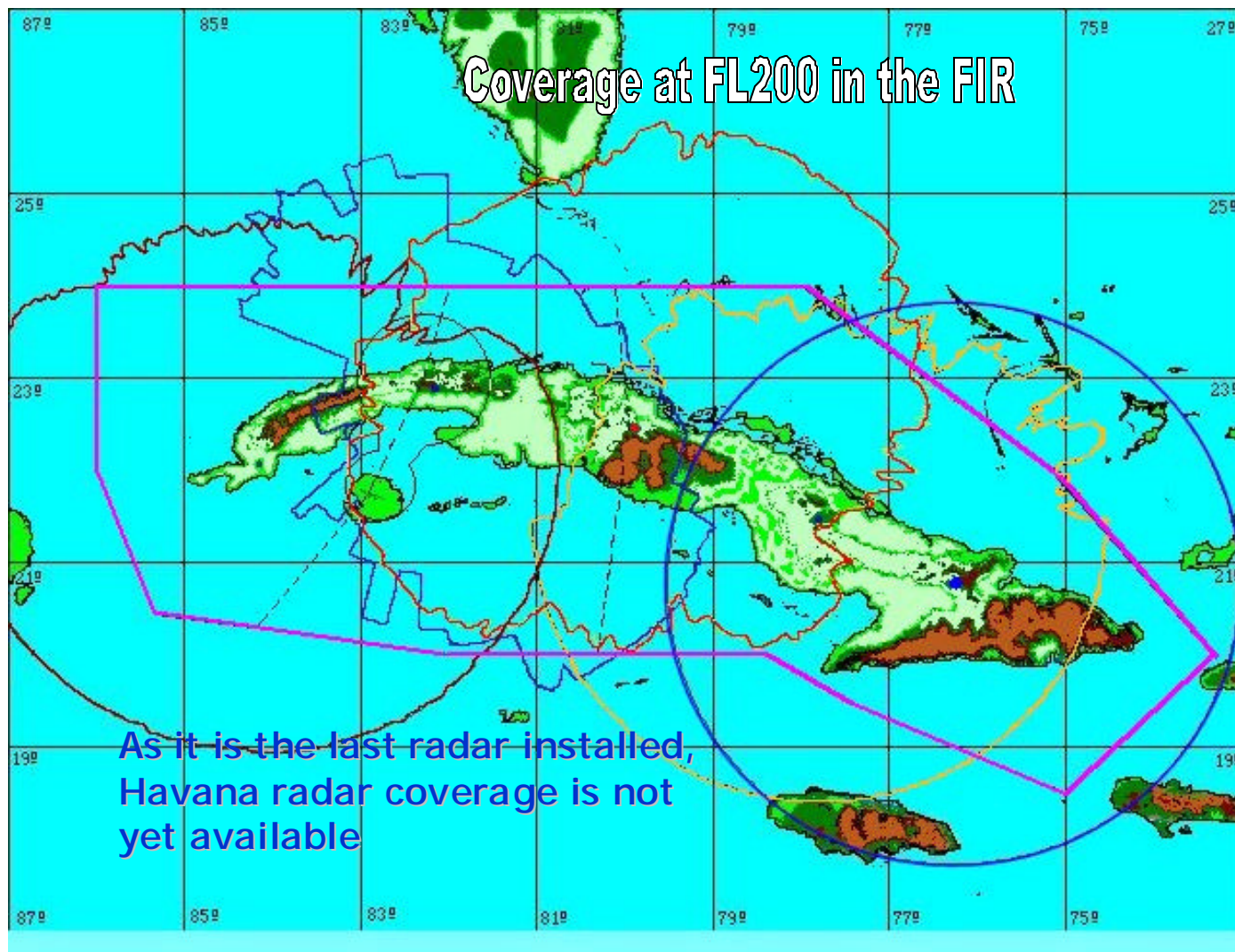
APPENDIX C

COVERAGE OF ADDITIONAL VHF STATIONS IN JAMAICA AND A REMOTE STATION IN
 GRAND CAYMAN



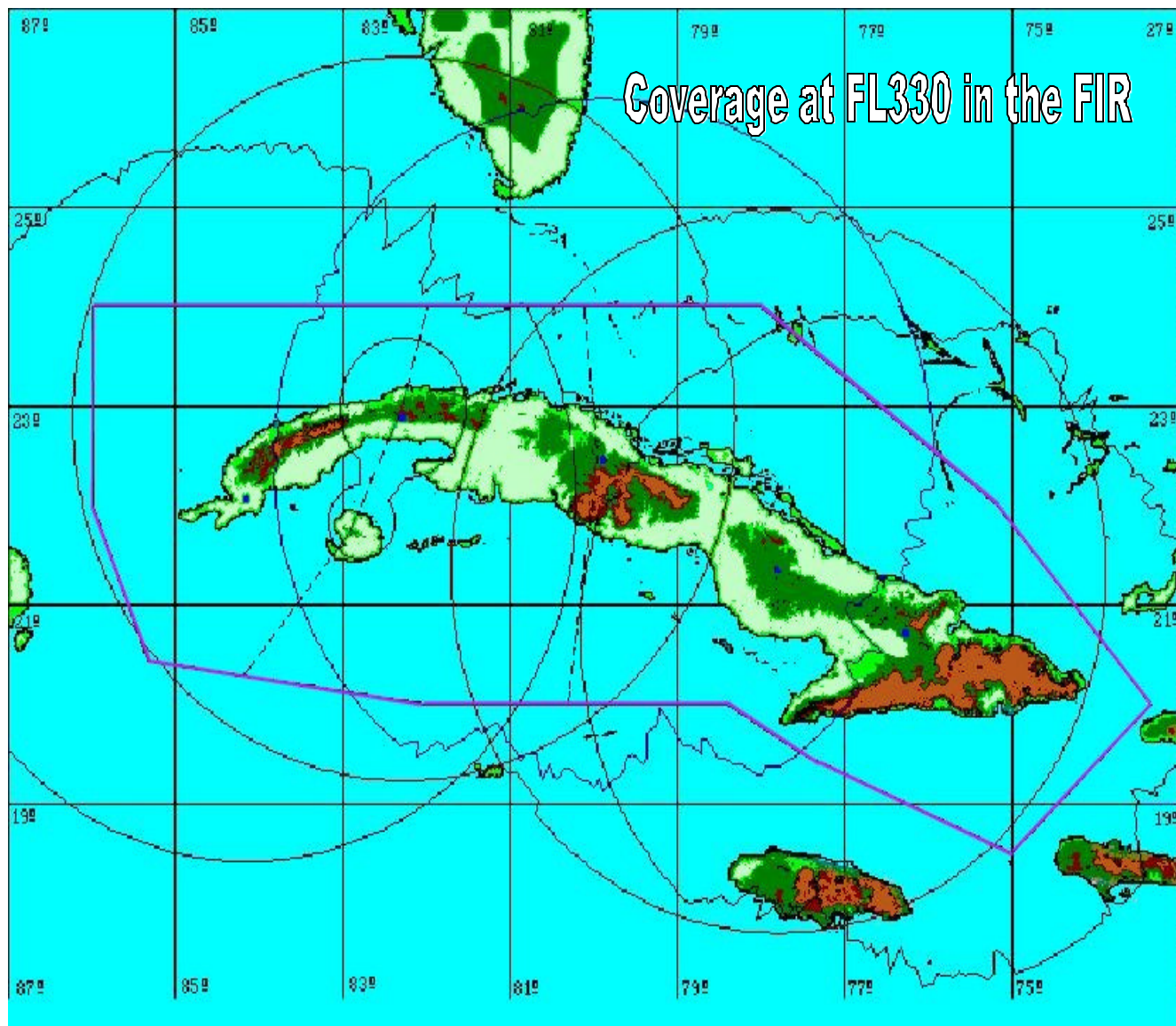
APPENDIX D

CUBA'S SSR RADAR COVERAGE DIAGRAMS



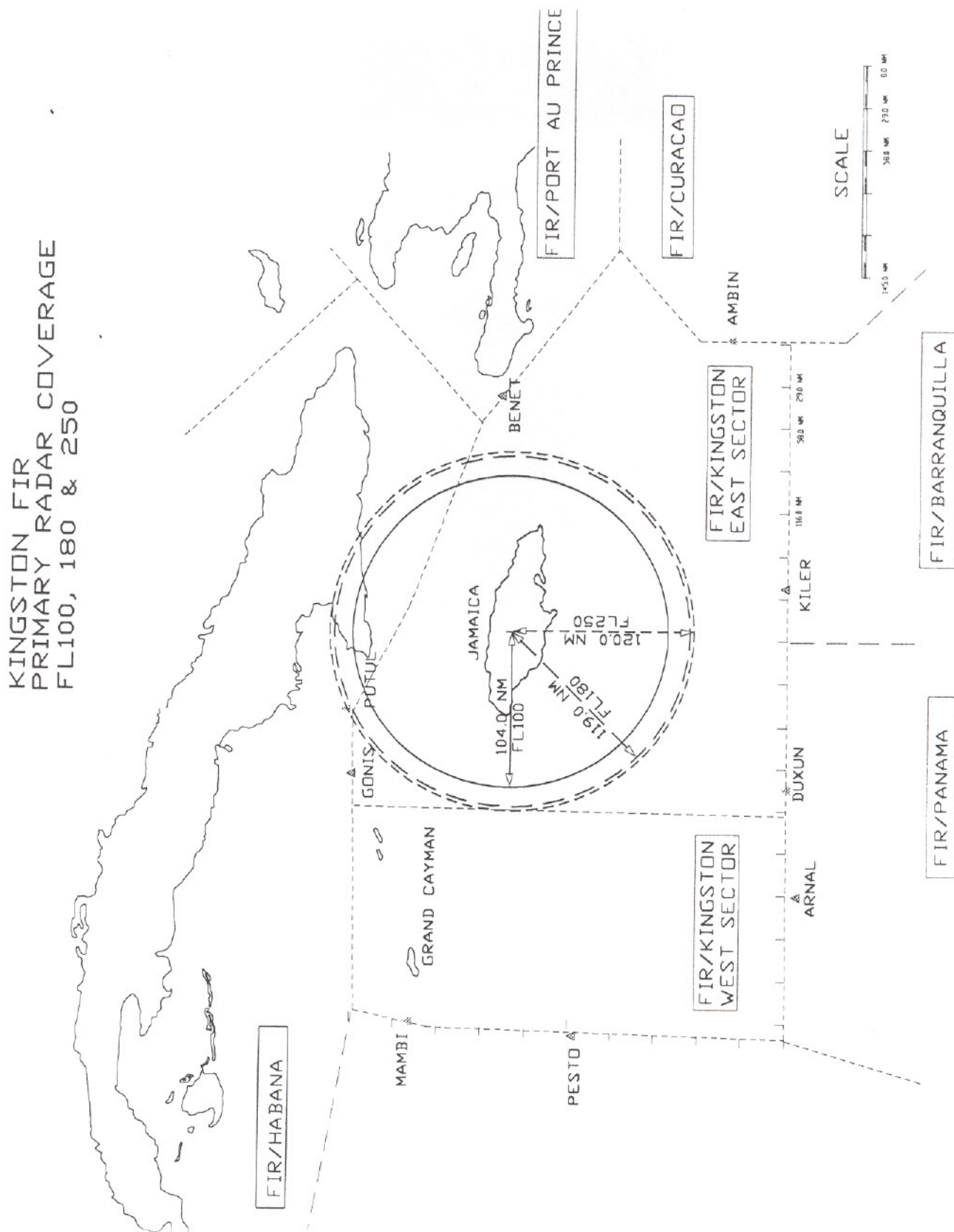
THIRD CENTRAL CARIBBEAN WORKING GROUP MEETING (C/CAR WG/3)
SUMMARY OF DISCUSSIONS
APPENDIX D TO AGENDA ITEM 5

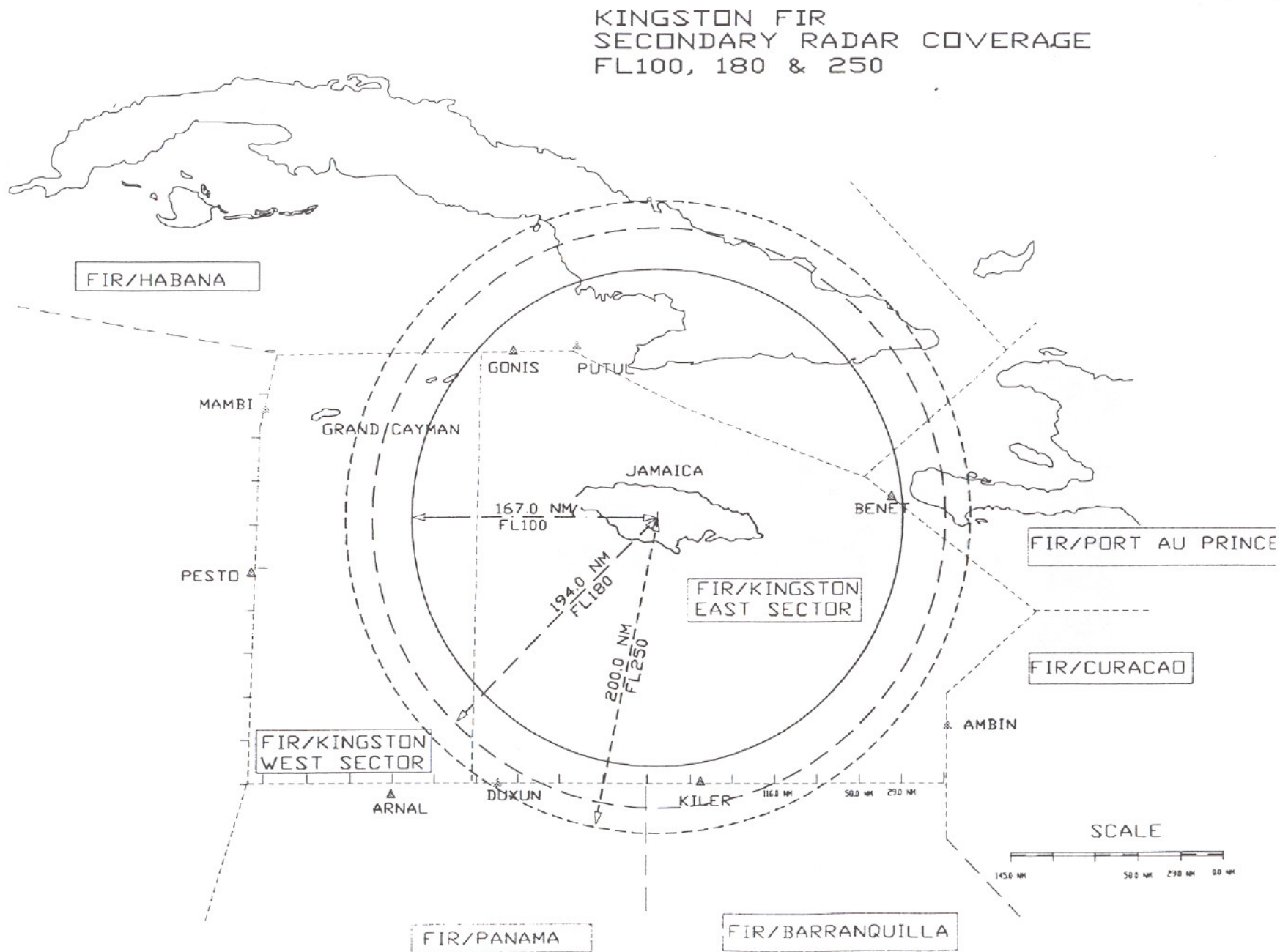
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APPENDIX E

COVERAGE DIAGRAMS OF JAMAICA RADARS





APPENDIX F

REVIEW OF THE TERMS OF REFERENCE AND WORK PROGRAMME OF THE SHARING OF RADAR DATA TASK FORCE FOR THE CENTRAL CARIBBEAN

a) 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 Decisions 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.

b) Work Programme

No.	Tasks	Finalization 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.	May 2003
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.	November 2003.
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 with regards to the closing of any radar facility (during the working period of the Group).	
5	Conduct a cost/benefit analysis for the implementation of Sharing of Radar Data projects.	June 2004
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.	October 2003
7	Develop and recommend a prototype Letter of Agreement for bilateral and multilateral agreements	November 2004
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.	February 2004.
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

No.	Tasks	Finalization date
10	Distribute the results of the Work Programme to the members of the Task Force of the Working Group for their consideration.	November 2003
11	Inform the 4 th Meeting of the Central Caribbean Working Group on the results of the work of this Task Force.	February 2004.

c) Composition

Cuba, Jamaica, Netherlands Antilles, United States and IFATCA.

d) Rapporteur

Vilmo Pieter, Netherlands Antilles.

Agenda Item 6: MET Developments

6.1 The Meeting agreed on the need to follow-up the aeronautical MET matters dealt with in the first meeting of the Group, essentially on the updating of FASID Tables MET2 and MET2A, as well as other MET matters, bearing in mind the relevant results of the GREPECAS/11 and NACC/DCA/1 meetings. Likewise, the Meeting reviewed other proposed actions to improve and develop aeronautical MET services in the Central Caribbean. The results of the review are as follows.

Actions to solve the problems affecting OPMET information exchange and assistance for the development and diffusion of SIGMET messages.

6.2 The Meeting noted the results of the COM/MET Special Implementation Project (COM/MET SIP) second phase, carried out from 23 September to 29 October 2002, for the following Central and Eastern Caribbean States/Territories: Antigua and Barbuda, Barbados, Cuba, Dominican Republic, Grenada, Haiti, Jamaica, Martinique (France), Saint Lucia, Saint Vincent and the Grenadines and Trinidad and Tobago. The SIP was carried out in accordance with GREPECAS Conclusion 9/7 and the relevant approval of ICAO Council, in order to study and recommend to each State/Territory measures designed to promptly solve problems that affect OPMET information exchange and to provide assistance on SIGMET messages preparation and dissemination operational procedures, especially those related to tropical cyclones and the presence of volcanic ash.

6.3 The Meeting was informed that during the missions of the ICAO expert to the States/Territories, meetings were held with the representatives of the AIS, ATS, COM and MET units, covering a total scope of the responsibilities and procedures of these operational units regarding the exchange of OPMET data and focused on the need to make sure that the meteorological messages:

- a) are prepared in accordance with the established provisions of ICAO Annex 3 – *Meteorological Service for the International Air Navigation*, WMO Technical Regulations [Volume II, Chapter C.3.1] and ICAO Annex 10 – *Aeronautical Telecommunications (Volume II, Procedures of Communications)*; and
- b) have a global dissemination based on the requirements of the CAR/SAM ANP (*Volume I, Basic ANP, Part IV – Communications, Navigation and Surveillance (CNS)*) and Volume II, FASID, Part VI- *Meteorology*).

6.4 The operation of the STAR 4 one way (reception) and two way system, (reception/transmission), which allows the reception at the MET office and transmission to the Washington world area forecast center (WAFC) of the products of the world area forecast system (WAFS) including OPMET information (METAR, SPECIs, TAFs, advisory messages on volcanic ash and tropical cyclones), were also verified by the SIP. Likewise, taking into account the new provisions introduced by Amendment 72 to Annex 3 of ICAO applicable from 1 November 2001, regarding the introduction of the template for SIGMET messages related to volcanic ash and tropical cyclone advisory messages information, emphasis was made on the new provisions on volcanic ash that should be in compliance with ICAO Annex 3 provisions, as well as the use of the operational procedures established in the *Manual on the International Airways Volcano Watch (IAVW) – Operational Procedures and list of Contact Points* (Doc 9766).

6.5 The Meeting was also informed that a copy of the Final SIP COM/MET Report was submitted by ICAO NACC Office to the Civil Aviation Authority of each of the States/Territories visited by the ICAO expert. Each report contains relevant recommendations aimed at helping solving exchange problems. Likewise, it was reported that in order to contribute to the success of the COM/MET SIP, the NACC Office would convene an implementation and follow-up meeting on the solutions recommended by the SIP, to be held during the second quarter of 2004. This meeting should be held with the presence of MET and COM experts of the concerned States/Territories.

6.6 The Meeting recommended that the Central Caribbean States/Territories involved in the SIP should develop as soon as possible an Action Plan to implement the Recommendations of the final Report by the MET expert, and solve the problems affecting OPMET information exchange, and that those States/Territories not included in the COM/MET SIP should also develop their action plans to improve OPMET information exchange.

Updating of FASID Tables MET 2 and 2A

6.7 The Meeting recalled Conclusion 1/29 adopted by the C/CAR WG/1 meeting, which called for an updating of FASID Tables MET2 and MET2A by the Group in coordination with the MET personnel. The Meeting also noted that GREPECAS/10 meeting recommended the need to update the aforementioned tables in order to ensure that they include the new requirements that might exist for OPMET data dissemination using the International Satellite Communication System (ISCS) and the Satellite Distribution System for Aeronautical Information Relating to Air Navigation (SADIS) for the operation of the satellite dissemination systems of the Aeronautical Fixed Service (AFS) introduced by Amendment 72 to Annex 3 applicable on 1 November 2001.

6.8 The Meeting considered that, due to the lack of participation of MET experts in the work of the Central Caribbean Working Group, and to the fact that in most of the States/Territories the task of reviewing FASID tables MET2 y MET2A was not subordinated to the civil aviation authorities, it was difficult for the Group to carry out the task, and therefore it was suggested to replace the Group's Conclusion 1/29 by the following new Draft Conclusion:

DRAFT

**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**.

Training needs for MET personnel

6.9 With respect to training needs for MET personnel, the Meeting was of the opinion that the States/Territories of the Central Caribbean should keep informed on the follow-up to GREPECAS Conclusion 10/39, supported by the ICAO Air Navigation Commission, which has the purpose of implementing a training project which is being coordinated between the International Civil Aviation Organization (ICAO) and the World Meteorological Organization (WMO) to provide short and long term solutions to the lack of trained personnel in States of the CAR/SAM Regions in the field of aeronautical meteorology. The Meeting recalled that the Commission indicated that, in accordance with the *Working Arrangements between the International Civil Aviation Organization and the World Meteorological Organization (Doc 7475)*, WMO is the organization responsible for the provision of meteorological service for international air navigation.

Transition plan for final phase of WAFS in the CAR/SAM Regions

6.10 The Meeting noted GREPECAS Conclusion 11/71, which calls for the need that the CAR/SAM Regions States/Territories acquire WAFS workstations. Moreover, the Meeting received updated information that would amend the schedule of the Transition Plan for the final phase of WAFS in the CAR/SAM Regions but considered that, in view that MET experts were not present in the Meeting, it was recommended that the AERMET Subgroup MET experts, who will meet in June 2003, consider reviewing the aforementioned Plan. **Appendix B** to this part of the report shows a draft Transition Plan, with proposals for amendment, subject to review by the AERMET Subgroup.

6.11 The Meeting emphasized the need to recall the C/CAR States/Territories that have not yet done so, to carry out appropriate actions in order to acquire the new WAFS workstations, and the fact that the ICAO NACC Office should continue the follow-up to GREPECAS Conclusion 11/71 in order to comply with the Transition Plan for the final phase of the WAFS.

- b) Comments if not found acceptable: _____

APPENDIX B

DRAFT TASKS PROGRAMME TO SUPPORT THE TRANSITION TOWARDS THE FINAL PHASE OF WAFS (SEE NOTE 1)

Task	Description of task	Proposed completion date
1	WAFS Washington to provide global gridded W/T data in GRIB code	Completed
2	WAFS Washington to produce SWH charts	Completed
3	ICAO NACC and SAM Regional MET officers survey states ability to produce wind/temperature charts from GRIB data for the purpose of assessing training needs.	Completed
4	ICAO to coordinate with States and users if there is validated regional requirement for SWH Charts for limited geographical area.	Completed
5	U.S. to provide BUFR decode software to the workstation manufactures	Completed
6	NWS-United States provide the technical functionality specifications for the purpose of acquiring new WAFS workstations	Completed
7	Buenos Aires and Brasilia RAFC close	Completed
8	States to initiate a process to procure new workstations, service agreements, and training to support these stations with a planned installation of workstations by November 2003.	April 2003
9	Establishment of back-up distribution arrangements for WAFS products	November 2002 (See Note 2)
10	Training to be completed on existing workstations provided to States who need assistance to produce wind/temperature charts from GRIB data in support of Task 14*	May 2003
11	Provision of test BUFR coded SIGWX forecasts on satellite broadcasts	mid-2002
12	All states that receive GRIB products capable of converting GRIB forecasts to Wind/Temp charts*	mid-2003
13	Training in the operational conversion of BUFR to SIGWX charts	late-2003 to late-2004
14	Removal of T4 wind/temperature charts from satellite broadcast*	mid-2003
15	Satellite distribution of global SWH and SWM in BUFR format	late-2003
16	States have the ability to operate the decoding and presentation software to convert BUFR SIGWX forecasts into operational graphical products	mid-2004
17	Removal of T4 SIGWX products from satellite broadcast	July 2005
WAFS Transition to Final Phase Completed		

THIRD CENTRAL CARIBBEAN WORKING GROUP MEETING (C/CAR WG/3)
SUMMARY OF CONCLUSIONS AND DECISIONS
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Note:

1. *This programme is subject to the review by the GREPECAS AERMET Subgroup.*
2. *According to the update of the status of the plan carried out in March 2003 with regard to task No. 9, it was reported that the Washington and London WAFSs are finalizing the satellite contingency process, through which contingency access codes will be required for all the users.*

Agenda Item 7: Review of the Terms of Reference and Work Programme of the Central Caribbean Working Group

7.1 The Meeting reviewed and made some amendments to the Terms of Reference and Work Programme of the Central Caribbean Working Group Meeting in order to emphasize the focus of the work of the Group towards the implementation of tasks to improve and develop air navigation systems and services taking into account the results of the review of Agenda Items 1 to 6 of this meeting, including updating and additional tasks as shown in the **Appendix** to this part of the Report.

7.2 Based on the above, the Meeting decided to formulate the following Draft Conclusion:

DRAFT

CONCLUSION 3/13 TERMS OF REFERENCE AND WORK PROGRAMME OF THE CENTRAL CARIBBEAN WORKING GROUP (C/CAR WG)

That, the proposed amendments to the Terms of Reference and Work Programme of the Central Caribbean Working Group (C/CAR WG) be adopted as shown in the Appendix to this part of the Report.

7.3 Likewise, the Group expressed concerns due to the fact that during the meetings held to date, there has been no participation of MET nor SAR experts of the States/Territories/International Organizations, which has prevented dealing with MET and SAR matters. The Meeting did however recognize that part of the regional work has been undertaken in the MET and SAR fields in other groups, meetings and fora. Notwithstanding this, the Meeting recalled that these matters were also very important, and thus this problem should be studied and solutions should be applied. The Meeting began to develop some alternative solutions, but finally agreed that the Group should inform the Directors of Civil Aviation of this problem, urging them to considerate and apply solutions to the aforementioned problems. Consequently, it formulated the following Draft Conclusion:

DRAFT

CONCLUSION 3/14 NEED TO STUDY AND APPLY SOLUTIONS TO THE EXISTING PROBLEMS IN THE C/CAR WORKING GROUP TO DEAL WITH MET AND SAR-RELATED MATTERS

That, measures be studied and adopted to solve the problems of the lack of participation of MET and SAR experts in the work of the C/CAR Working Group, which is preventing the development of the tasks assigned related with MET and SAR matters.

7.4 Moreover, the Meeting recalled that, in order to make further progress in the work of the C/CAR Working Group, its Task Forces should work more during the period between the Group meetings, including coordination using the electronic means of communication.

APPENDIX

REVIEW OF THE 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 ~~washas-been~~ 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. ~~It also agreed that the Working Group should meet prior to the Fifth C/CAR DCA Meeting.~~

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 Pétion 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.

Conclusion 4/10 Establishment of the 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 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 ~~of established in~~ the CAR/SAM Air Navigation Plan of the States/Territories in its area of responsibility and in compliance with GREPECAS conclusions and the ICAO SARPs; and
- c) The C/CAR WG will identify and propose actions to correct the air navigation systems/services shortcomings and deficiencies affecting international civil aviation operations 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~~taken associated with the planning and implementation of regional developments related to airport operations, physical characteristics, facilities, services and safeguarding in relation to airport safety, security and efficiency, as well as environmental protection at and around airports.

Communications, Navigation and Surveillance (CNS)

To study CNS issues ~~and recommend actions~~ associated with solutions to ~~shortcomings~~ 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 ~~to be taken~~ associated with the planning and implementation of regional developments related to airspace management (ASM), 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~~taken, 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 ~~issues associated with the~~ 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 and ~~assurance of quality~~ assurance programmes, proposing action plans and contributing to the coordination and follow-up of these issues.

4 Work Programme

No.	Task	Priority	Completion	Responsible
1	Review, Follow-up and promote, <u>contribute to the coordination and propose relevant actions for</u> the implementation of AIS/AGA/ATM/CNS/MET/SAR requirements established in of the CAR/SAM ANP.	A	Permanent	C/CAR WG
2	Review, and propose actions to carry out and follow-up <u>the implementation of</u> 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	Review the database <u>list</u> 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	Contribute to Develop and maintain <u>ing</u> up-to-date the domestic CNS/ATM Transition Implementation Plans for the <u>Central Caribbean</u> States/Territories.	A	Permanent	C/CAR WG
5	Review Letters of Agreement of ACCs in the Central Caribbean and adjacent FIRs, <u>contribute to the coordination</u> and to recommend corrective actions if necessary.	B	Permanent	States, Territories, C/CAR WG
6	Review the ATS Route Network in the Central Caribbean, recommend changes if required in coordination with the adjacent FIRs and recommend solutions to the congestion on some ATS routes crossing the sub-region.	A	C/CAR WG/ <u>34</u>	<u>ATS Routes</u> <u>ATM</u> Task Force
7	Follow-up on the implementation of the mandatory use of the SSR Mode C transponder in the Central Caribbean.	A	C/CAR WG/ <u>34</u>	C/CAR WG, Secretariat
8	Follow-up on the implementation of the mandatory use of the ACAS II in the Central Caribbean.	A	C/CAR WG/ <u>34</u>	C/CAR WG, Secretariat

No.	Task	Priority	Completion	Responsible
9	Identify, evaluate and recommend actions to improve matters relating to operational safety in <u>international Central Caribbean</u> airport movement areas <u>resulting from</u> due to deficiencies in the AGA, ATS, <u>CNS</u> and OPS areas in the Central Caribbean .	B	C/CAR WG/ <u>35</u>	C/CAR WG
10	Study the ATS incidents and propose the implementation of ATS quality assurance programmes in the Central Caribbean.	A	C/CAR WG/ <u>34</u>	C/CAR WG, Secretariat
11	Examine and propose solutions to ATS staffing/training and administrative aspects of ATS units in the Central Caribbean.	B	C/CAR WG/ <u>35</u>	C/CAR WG
12	Study and propose solutions to the use of non-standard ATS phraseology and especially of the English language for <u>the</u> non-English speaking States in the Central Caribbean.	A	C/CAR WG/ <u>34</u>	C/CAR WG, Secretariat
13	Recommend Take the necessary actions to develop and assist States/Territories with implementing an AIS Automation Plan and in the Central Caribbean, <u>developing the relevant databases.</u>	A	C/CAR WG/ <u>34</u>	C/CAR WG, Secretariat
14	Develop Carry out the coordination, assistance and follow-up of the implementation of a standard AIS/MAP Quality Assurance System, and assist in the Central Caribbean States/Territories to implement it.	A	C/CAR WG/ <u>34</u>	C/CAR WG, Secretariat
15	Identify training needs of all personnel that uses MET information in their operations, including the installation, maintenance and repair of high technology electronic meteorological equipment.	A	C/CAR WG/ <u>34</u>	C/CAR WG
16	<u>Assist and contribute to the coordination among the C/CAR States/Territories for the</u> Develop an implementation of plan for sharing radar data <u>sharing</u> in the Central Caribbean.	B	To be determined C/ <u>CAR/WG/5</u>	Radar Data Sharing Task Force
17	Review the VHF AMS (R) <u>communications</u> coverage in the sub-region <u>Central Caribbean airspace</u> and recommend actions for its development.	A	C/CAR WG/ <u>34</u>	VHF/AMS Coverage Task Force
18	<u>Contribute to the coordination and</u> Follow-up of the <u>total</u> implementation of WGS-84 in the States/Territories in the Central Caribbean and adjacent regions as well as recommend actions to solve the discrepancies of the published information <u>published in the AIPs.</u>	A	Permanent	C/CAR WG
19	Conduct a study and recommend a plan for GNSS implementation, including its augmentation system.	B	To be determined	To be determined
20	<u>Assist and contribute to the coordination and follow-up of the implementation of</u> Study the planning and possible criteria for VHF air-ground data links (VDL) <u>implementation.</u>	B	To be determined	To be determined
21	<u>Propose a C/CAR subregional action</u> Review the plan for the <u>implementation of ATN and its applications</u> transition of AFTN towards AMHS, contributing to its coordination and follow-up.	B	To be determined	<u>MEVA</u> <u>TMGC/CAR</u> <u>WG</u>

No.	Task	Priority	Completion	Responsible
<u>22</u>	<u>Identify and study ATM and CNS scenarios in the C/CAR Subregion with a view to improving and implementing these systems/services.</u>	<u>A</u>	<u>C/CAR/WG/5</u>	<u>C/CAR/WG</u>
<u>23</u>	<u>Develop a C/CAR CNS/ATM Implementation Subregional Plan Subregional Plan for the Central Caribbean</u>	<u>AB</u>	<u>To be determined C/CAR/WG/5</u>	C/CAR WG
<u>24</u>	Follow up the 10 minute and/or 80 NM RNAV longitudinal separation.	A	C/CAR WG/ <u>34</u>	Secretariat, <u>IATA</u>

5 Priority

- A High-priority – Tasks on which work should be completed as soon as possible.
- B Medium priority – Tasks on which work should be undertaken as soon as possible, but without detriment to Priority A tasks.
- C Low priority – Tasks 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 chair~~man~~person 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 serve-be elected as vice-chair~~man~~person of the corresponding meeting.

The chair~~man~~person 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.

Agenda Item 8: Other business

Venue of the Fourth Central Caribbean Working Group Meeting

8.1 According with the rotational meeting programme (see **Appendix**), the Secretariat informed the Meeting that Dominican Republic is scheduled to host the Fourth Central Caribbean Working Group Meeting in mid February 2004. Since Dominican Republic did not participate in this Meeting, the Secretariat would inform and coordinate directly with that State regarding the possibility of hosting of the Fourth C/CAR/WG Meeting.

Election of the Group's Chairperson for the following period

8.2 According with the C/CAR/WG Terms of Reference, Mr. Jacques Boursiquot, the current Chairman, had completed the three-year term for which he was elected. The Meeting expressed its satisfaction with his excellent performance. The Meeting was invited to elect a Chairperson for the next 3-year term. The Netherlands Antilles proposed the re-election of the present Chairperson for the next 3-year term. This motion was supported by Jamaica and the United States. The Meeting concurred and congratulated Jacques Boursiquot for his re-appointment.

Appreciation for Gustavo de Leon

8.3 Jamaica requested the Secretariat to convey to the previous C/CAR/WG Secretary, Mr. Gustavo de Leon, their appreciation for his excellent support to the Group during the first two years of its existence and their congratulations on his appointment to the ATM Section at ICAO Headquarters. All Meeting participants concurred with this sentiment.

APPENDIX

MEETING HOST ROTATION PROGRAMME FOR FUTURE C/CAR WORKING GROUP MEETINGS

<u>Date</u>	<u>States / Territories</u>
2004	Dominican Republic
To be determined	ICAO NACC Regional Office, Mexico City
To be determined	Cuba
To be determined	Jamaica
To be determined	United States
To be determined	ICAO NACC Regional Office, Mexico City
To be determined	Aruba
To be determined	Bahamas
To be determined	Turks and Caicos Islands
To be determined	ICAO NACC Regional Office, Mexico City
To be determined	Cayman Islands