



International Civil Aviation Organization

North American, Central American and Caribbean Office

**Second Meeting of North American, Central American and Caribbean Directors of Civil Aviation (NACC/DCA/2)**

Tegucigalpa, Honduras, 11 – 14 October 2005

NACC/DCA/2-WP/25

05/09/05

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**Agenda Item 1: Review of NACC/DCA/1, GREPECAS, CA/DCA, E/CAR/DCA, C/CAR/DCA and Working Group Meetings**

**FOLLOW-UP TO THE EXECUTION OF RECOMMENDATIONS/CONCLUSIONS OF THE GLOBAL, REGIONAL AND SUBREGIONAL MEETINGS FOR THE DEVELOPMENT OF AIR NAVIGATION SYSTEM IN THE NACC REGIONS**

(Presented by the Secretariat)

**SUMMARY**

The purpose of this working paper is to facilitate the follow-up of the Recommendations/Conclusions adopted by the NACC regional and sub-regional meetings, in order to continue the developments in the AGA, AIS/MAP, ATM, CNS, MET and SAR air navigation fields in these regions.

**References:**

- Report of the RAN/CAR/SAM/3.
- ANP CAR/SAM Volume I and II.
- Report of the NACC/1 Meeting, Grand Cayman, 8-11 October 2002.
- Report of the An-Conf/11, Montreal, 22 Sept. to 3 Oct. 2003.
- Reports of the Eleventh and Twelfth GREPECAS Meetings.
- Reports of the Third and Fourth C/CAR WG Meetings.
- Reports of the Sixth and Seventh C/CAR DCA Meetings.
- Reports of the Ninth and Tenth MEVA Meetings.
- Reports of the 27th - 29th E/CAR IWG Meetings.
- Reports of the 18th – 19th E/CAR DCA Meetings.
- Reports of the 89th – 91st DGAC CAP Meetings.

**1. Introduction**

1.1 The First Meeting of Directors of Civil Aviation of the Caribbean Region (NACC/1), held in Grand Cayman, Cayman Islands from 8 to 11 October 2002 agreed with Conclusion 1/1 - *Support for the Implementation of Recommendations/Conclusions/Decisions of CAR/SAM Regional and CAR Subregional Meeting*. This Conclusion urged to optimize the support and attention to the implementation of these actions related to the air navigation and consider those actions as the main working guidelines and establish the appropriate coordination and bilateral or multilateral cooperation agreements for development of air navigation.

1.2 The Air Navigation Plan (ANP) in its two volumes, Vol. I – Basic Plan and Volume II – FASID (Doc. 8933), the Recommendations/Conclusions of the RAN/CAR/SAM/3, the GREPECAS, the Eleventh Air Navigation Conference (AN-Conf/11), the Air Navigation Global Plan for the CNS/ATM systems, (Doc. 9750 – AN/963), the ICAO SARPs and PANS, constitute the foundation for the guidelines on the work by the States/Territories/International Organizations of the NACC Regions, to develop air navigation systems and services, including the CNS/ATM systems and improve air safety.

1.3 In the NACC Regions execution of the established work mechanism continues through air navigation systems implementation meetings, according to the sub-regions in which the States/Territories/International Organizations of the adjacent regions/subregions are invited to participate. The mechanism is the following:

*a) North America (NAM)*

- Canada, Mexico and United States Meetings.
- ATFM/ATM Meetings.

*b) Central Caribbean (C/CAR):*

- Working Group (WG) Meeting.
- Directors of Civil Aviation (DCA) Meetings; and
- MEVA digital network Meetings.

*c) Eastern Caribbean (E/CAR):*

- Informal Working Group (IWG) Meetings.
- Directors of Civil Aviation Meetings (DCA).

*a) Central America and Panama (CAP):*

- COCESNA ATS experts Meetings;
- COCESNA AIS/MAP Meetings;
- COCESNA COBUSA Meetings;
- Central American Air Navigation Experts Working Group Meetings (CA/ANE/WG); and
- Directors General of Civil Aviation Meetings (DGAC).

## **2. Discussion**

2.1 Bearing in mind the background and the facts expressed in the above paragraphs, in order to develop air navigation systems, complying with civil aviation needs with regards to the increase in air traffic, and to enhance aeronautical safety, it is necessary to comply with Recommendations/Conclusions of regional planning and implementation bodies. To this end, the attention, coordination and cooperation of States/Territories/International Organizations are necessary. The **Appendix** presents a table with an executive summary of the Recommendations/Conclusions of the Global and CAR/SAM Regional and CAR Subregional meetings organized to deal with the different air navigation areas, with common application in these Regions, which has been updated according to the last meetings results.

2.2 In columns 4 to 15 the numbers of the referenced Conclusions are placed for each regional and subregional body, aimed at identifying the details of the guidelines and actions agreed upon. Likewise, Recommendations of AN-Conf/11 are represented, which are related with these events.

2.3 The Meeting may consider and agree that the issues contained in the Appendix could be consider as the updated main work guidelines for the NACC Regions. Also, other conclusions/recommendations of the mentioned bodies which are not contained in the afore-mentioned Appendix may require attention and implementation.

### 3. **Suggested actions**

3.1 The Meeting is invited to:

- a) take note of the information contained in this working paper;
- b) examine the executive summary of the list of recommendations / conclusions contained in the Appendix and review the comments of the Secretariat, considering it as the main work guidelines, in order to develop actions to support the implementation of those and other relevant recommendations/conclusions of the NACC regional and subregional bodies, taking into account the considerations expressed in paragraphs 2.1 and 2.3; and
- c) analyze and propose other actions in relation to this item, as deem appropriate.

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EXECUTIVE SUMMARY OF THE RECOMMENDATIONS/CONCLUSIONS OF Global, REGIONAL AND SUBREGIONAL MEETINGS

ITEM	AREA	MATTER/STATUS AND OBJECTIVE	REFERENCE RECOMMENDATIONS/CONCLUSIONS/DECISIONS											
			M	NAM/CAR		CAR/SAM		CAR						
			AN-Conf/11	ATFM/1	NACC/2	CAR/SAM/3 RAN	GREPECAS	C/CAR			E/CAR		CA	
4	5	6	7	8	9	10	11	12	13	14	15			
<b>1</b>	<b>GEN</b>													
1.1		<p><b>Solution to air navigation services deficiencies</b> 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.</p>			1/20	4/1 13/19	11/38 12/70 12/71 12/121 12/122 12/123 12/124	1/4 1/9 1/20 1/30 2/8 2/19 5/1	7/10		24/21 25/21 25/32	16/14 17/7 18/15 19/25	4/1 4/16	89/2 91/6
1.2		<p><b>Implementation of the requirements established in the CAR/SAM ANP FASID</b> 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 amendment, is required.</p>				7/9 7/8 8/1 8/2 8/4 9/2 9/13 9/21 10/2 11/3	10/21 10/31	1/18 1/19 1/29 2/7 3/9 3/12	5/16b 5/21				88/12	
<b>2</b>	<b>AGA</b>													
2.1		<p><b>Aerodrome Certification</b> States were urged to implement aerodrome certification in order to comply with the new SARPs no later than 27 November 2003.</p>						1/5			16/16		88/2	
2.2		<p><b>Aerodrome Maintenance Programmes</b> 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.</p>				4/13	12/74							
2.3		<p><b>Bird Hazard National and Regional Committees</b></p>												

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			M	NAM/CAR		CAR/SAM		CAR							
			AN-Conf/11	ATFM/1	NACC/2	CAR/SAM/3 RAN	GREPECAS	C/CAR			E/CAR		CA		
								C/CAR/WG	C/CAR/DCA	MEVA	E/CAR/WG	E/CAR/DCA	CA/ANEWG	DGAC CAP	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
2.4		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.  <b>Runway Incursions.</b> 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.				4/10	12/75		4/7				16/17		85/7
<b>3</b>	<b>AIS/MAP</b>														
3.1		<b>Aeronautical Information Services and Aeronautical Charts Automation</b> 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.			1/16	12/7	10/51 10/54 12/90 12/91 12/92 12/95 12/96 12/97	1/8 2/16	5/7 6/4		22/5 23/11 28/2				88/6 91/1
3.2		<b>Implementation of AIS/MAP Quality System</b> 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.			1/16	12/1	12/94 12/125	1/8 2/16	5/7						85/16 89/11 91/4
3.3		<b>Total implementation of WGS-84</b> 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.			1/16	12/6	10/49 10/55 10/57 11/63 12/85 12/86 12/87	1/7 2/17 5/3	4/16 5/6 7/9		22/7 24/24 28/3	16/9	4/6	85/17 86/1 86/2 86/4 87/3 88/5 89/8 89/10 90/4	
<b>4</b>	<b>ATM</b>														

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4	5	6	7	8	9	10	11	12	13	14	15			
4.1		<p><b>Implementation of RNAV Routes</b> 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.</p>			1/10	5/15 5/16 5/22 5/23	12/7 12/8 12/9		7/5		24/27 24/28 25/1 27/15 28/7			90/4 91/8
4.2		<p><b>Implementation of Required Navigation Performance (RNP)</b> States/International Organizations have also been urged to implement RNP.</p>			1/10	5/23 10/17	11/22 12/11		7/6		28/7			89/4
4.3		<p><b>Implementation of Reduced Vertical Separation Minimum of 300 mts (1000ft) between GREPECAS</b> has urged the States/Territories and COCESNA to follow the evaluation process of the implemented RVSM in the respective Flight Information Regions through an implementation programme by steps.</p>	4/9		1/11	5/27 5/28 5/29 5/31	11/23 11/28 12/12 12/15 12/16 12/17 12/18 12/19 12/21 12/22 12/23				25/6			
4.4		<p><b>ATS Contingency Plans</b> 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.</p>			1/19		10/8	2/4 4/3	4/8 7/8		20/2 20/3 25/3 26/4	19/6	3/13 3/14	85/8
4.5		<p><b>ATS Quality Assurance Programmes / Safety Management System</b> It is required to evolve of the ATS quality assurance programs towards the implementation of the Safety Management System. .</p>				5/37 5/38	12/26 12/27 12/28 12/29		2/5	6/6 7/7	25/6 26/5			84/6 88/3
4.6		<p><b>Civil/Military coordination and interception of civil aircraft</b></p>												

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								C/CAR/WG	C/CAR/DCA	MEVA	E/CAR/WG	E/CAR/DCA	CA/ANEWG	DGAC CAP	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
4.7		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.  <b>Air Traffic Flow Management (ATFM)</b> The need to develop a strategy and to implement the system of organization of the Air Traffic Flow Management (ATFM) through the establishment of units of flow management in order that the users of the airspace can fulfill the optimal profiles of flight and the schedule of departure and arrival, reducing the delays of the flights in ground and air.	1/2			5/6 5/7 5/8 5/11 5/12			1/17						
4.8		<b>Planning and implementation of global ATM system</b> It is required that the ICAO, States and PIRGs guide the planning for the implementation of global ATM system of the Global Plan of Air Navigation for CNS/ATM systems (Doc. 9750).		1/1 1/2 1/3 1/4 1/5				5/24						4/11	
4.9		<b>Operational Implementation of ADS / ADS-B</b> It is required to continue the execution of plans, as well as the studies to implement ADS / ADS-B in these regions.	1/1												
4.9			1/7				11/50 12/32								
<b>5</b>	<b>CNS</b>														
5.1		<b>Support to ICAO position at the ITU's WRC-2007.</b> Support ICAO position at the ITU's WRC-2007 to defend the interests and needs of radio frequency spectrum for civil aviation.					12/33	5/6		10/5 10/4				4/4	88/11
5.2		<b>Development and interconnectivity of regional digital networks.</b> It is intended to complete the implementation and management of regional networks CAMSAT, E/CAR and MEVA of the CAR Region, to attain the interoperability 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	10/25 12/39	5/15		10/3 10/4 10/5 10/6 10/7	23/19 23/20 24/11 26/12 29/4 29/6 29/7	16/12 17/4 18/13 19/9			
5.3		<b>Improvement of and compliance with the required VHF/HF AMS coverage.</b>													

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
5.4		<p>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.</p> <p><b>Implementation of air-ground data link</b> Based on the technology available it is intended to maximize the use of air-to-ground data link to provide benefits to the air navigation service providers and to the users of the airspace increasing the safety.</p>				9/21 10/2 10/6	10/29		2/9 2/10	5/10		27/21 27/22			88/15 89/16
5.5		<p><b>Transition from AFTN to ATN. Implementation of ATN ground portion.</b> 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.</p>					12/42 12/43					19/23			
5.6		<p><b>GNSS Implementation.</b> 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.</p>	6/1 6/2 6/9 6/13			9/2 9/3 9/4 9/5 9/6 9/13	10/20 10/21 10/22 10/23 10/24 12/41						19/24	4/15	88/16 89/17
5.7		<p><b>Radar data exchange.</b> 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.</p>				10/1 10/2 10/6	10/32 11/44 11/45 11/46 12/45 12/46	2/12					19/24		88/17 88/18 89/18 89/19 91/2
5.8		<p><b>Strategy for introduction of ADS/ADS-B.</b></p>				11/4 11/5	11/47 12/48 12/49		2/13 2/14 5/17 5/19 5/21	5/20		24/13 24/14 25/16 28/13	19/13 19/14 19/15 19/17 19/18	4/20 4/21	84/5 85/14 88/19 89/22



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4	5	6	7	8	9	10	11	12	13	14	15				
1	2	3 To guide the strategy and the ADS/ADS-B implementation where it is feasible and operationally advantageous.	7/1 7/2					11/49 11/50 12/44	5/12 5/22					4/23	
<b>6</b>	<b>MET</b>														
6.1		<b>Significant Weather Charts (medium level) (SWM) for the CAR/SAM Regions</b>  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.													
6.2		<b>Maintenance of WAFS equipment and systems</b> 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.					11/71 11/72 12/52				27/10				
6.3		<b>Communication problems regarding OPMET information exchange</b> 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 10/36 12/62 12/63 12/64		5/25						
6.4		<b>COM/MET Special Implementation Project (SIP)</b> 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.			1/18										89/13
<b>7</b>	<b>MCI/SAR</b>														
7.1		<b>Regional Response Plan to Mass Casualty Civil Aviation Incidents.</b> States have agreed upon actions to develop a Response Plan for Mass Casualties Incidents in the Caribbean.			1/27					4/12 7/14			16/18 17/3 18/9 19/26	3/18	
7.2		<b>Search and Rescue (SAR) Agreements among States</b>													

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								C/CAR/WG	C/CAR/DCA	MEVA	E/CAR/WG	E/CAR/DCA	CA/ANEWG	DGAC CAP
4	5	6	7	8	9	10	11	12	13	14	15			
1	2	3 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.			1/26	6/3 6/4 6/5 6/7 6/8 6/11 6/12			3/14 5/30			16/3 17/1 17/2 18/8 19/4	4/25 4/26 4/27	

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